

OCT 2007

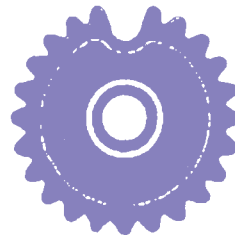
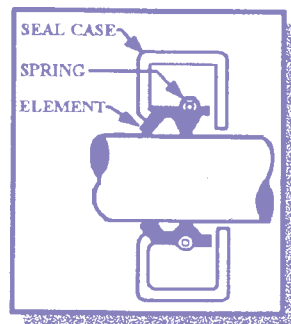
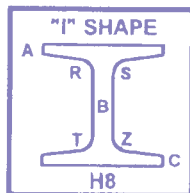
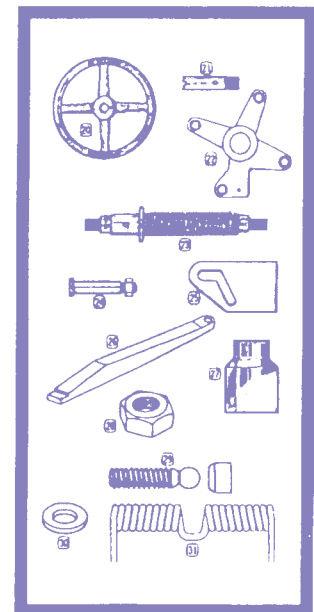
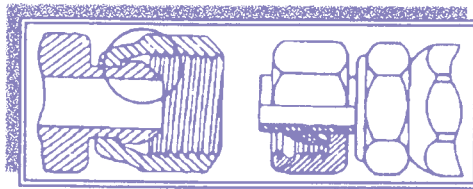
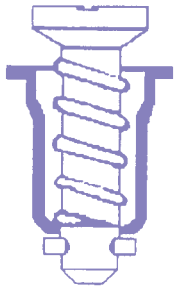
**Section 1**  
**FSG 20 thru 51**



---

# *AFLOAT SHOPPING GUIDE*

---



## **FOREWORD**

### **PURPOSE**

The purpose of this publication is to assist fleet personnel in identifying common items of supply.

### **SCOPE**

The selection of types and quantities of items in the ASG publication is limited to items demanded by the afloat units. As a result, the ASG publication does not include all valid items in the Supply System.

## **REMINDERS**

### **ILLUSTRATIONS**

In this publication, illustrations are representative and typical of the item(s) described rather than exact representations, since the products of various manufacturers may vary some what in appearance.

### **REFERENCE NUMBERS**

Manufacturer reference numbers appearing in the Afloat Shopping Guide are provided only where items descriptions were developed from manufacturer drawings.

### **CARGO USE**

To determine if an item is available from the Combat Logistics Force Ship, refer to the latest edition of NAVSUP PUB 4998, Consolidated Afloat Requisitioning Guide-Overseas (CARGO). If listed, we recommend the selection and use of the items in the CARGO, because of the availability to deployed units.

### **SUPPLY MANAGEMENT DATA**

Refer to the current Supply Management Data found in your Requisitioning data file for up-to-date information on unit price, unit of issue, and other supply management data.

---

## Table of Contents

Index of Federal Supply Groups and Classes .....	III
How to Use This Section .....	VII
Buy Our Spare's Smart Program (BOSS) .....	IX
Publication Distribution .....	X
Plastic Removal in the Marine Environment (PRIME) .....	XI
Level 1 Fasteners .....	XV
Technical Assistance Phone Numbers .....	XVI
Shipboard Approved Habitability Statement .....	XVII
Alphabetic Index of Approved Item Names .....	XIX
Item Descriptive Data .....	1-1
NIIN Index .....	1-275



# Index of Federal Supply Groups and Classes

## GROUP 20

### SHIP and MARINE EQUIPMENT

FSC 2040 — MARINE HARDWARE and HULL ITEMS .....	1-1
FSC 2090 — MISCELLANEOUS SHIP and MARINE EQUIPMENT .....	1-13

## GROUP 26

### TIRES AND TUBES

FSC 2610 — TIRES and TUBES, PNEUMATIC, EXCEPT AIRCRAFT .....	1-19
FSC 2640 — TIRE REBUILDING and TIRE and TUBE REPAIR MATERIALS.....	1-21

## GROUP 30

### MECHANICAL POWER TRANSMISSION EQUIPMENT

FSC 3020 — GEARS, PULLEYS, SPROCKETS, and TRANSMISSION CHAINS .....	1-23
FSC 3030 — BELTING, DRIVE BELTS, FAN BELTS, and ACCESSORIES .....	1-25
FSC 3040 — MISCELLANEOUS POWER TRANSMISSION EQUIPMENT .....	1-31

## GROUP 31

### BEARINGS

FSC 3110 — BEARINGS, ANTIFRICTION, UNMOUNTED .....	1-33
FSC 3120 — BEARINGS, PLAIN, UNMOUNTED.....	1-41
FSC 3130 — BEARINGS, MOUNTED .....	1-51

## GROUP 34

### METALWORKING MACHINERY

FSC 3433 — GAS WELDING, HEAT CUTTING, and METALIZING EQUIPMENT.....	1-53
FSC 3439 — MISCELLANEOUS WELDING, SOLDERING, and BRAZING SUPPLIES, and ACCESSORIES .....	1-55
FSC 3441 — BENDING and FORMING MACHINES.....	1-61
FSC 3455 — CUTTING TOOLS for MACHINE TOOLS .....	1-63
FSC 3456 — CUTTING and FORMING TOOLS for SECONDARY METALWORKING MACHINERY .....	1-67
FSC 3460 — MACHINE TOOL ACCESSORIES .....	1-69

# Index of Federal Supply Groups and Classes

## GROUP 35

### SERVICE and TRADE EQUIPMENT

FSC 3510 — LAUNDRY and DRY CLEANING EQUIPMENT .....	1-73
FSC 3540 — WRAPPING and PACKAGING MACHINERY.....	1-75
FSC 3590 — MISCELLANEOUS SERVICE and TRADE EQUIPMENT .....	1-77

## GROUP 39

### MATERIALS HANDLING EQUIPMENT

FSC 3940 — BLOCKS, TACKLE, RIGGING and SLINGS .....	1-79
FSC 3990 — MISCELLANEOUS MATERIALS HANDLING EQUIPMENT .....	1-85

## GROUP 40

### ROPE, CABLE, CHAIN, and FITTINGS

FSC 4010 — CHAIN and WIRE ROPE .....	1-87
FSC 4020 — FIBER ROPE, CORDAGE, and TWINE .....	1-93
FSC 4030 — FITTINGS for ROPE, CABLE and CHAINS.....	1-95

## GROUP 41

### REFRIGERATION, AIR CONDITIONING, and AIR CIRCULATING EQUIPMENT

FSC 4110 — REFRIGERATION EQUIPMENT .....	1-101
FSC 4130 — REFRIGERATION and AIR CONDITIONING COMPONENTS .....	1-103
FSC 4140 — FANS, AIR CIRCULATORS, and BLOWER EQUIPMENT.....	1-105

## GROUP 42

### FIRE FIGHTING, RESCUE, and SAFETY EQUIPMENT; and ENVIRONMENTAL PROTECTION EQUIPMENT and MATERIALS

FSC 4210 — FIRE FIGHTING EQUIPMENT .....	1-107
FSC 4220 — MARINE LIFESAVING and DIVING EQUIPMENT .....	1-113
FSC 4240 — SAFETY and RESCUE EQUIPMENT .....	1-117

# Index of Federal Supply Groups and Classes

## GROUP 45

### PLUMBING, HEATING, and WASTE DISPOSAL EQUIPMENT

FSC 4510 — PLUMBING FIXTURES and ACCESSORIES ..... 1-123

## GROUP 47

### PIPE, TUBING, HOSE and FITTINGS

FSC 4710 — PIPE, TUBE and RIGID TUBING ..... 1-129

FSC 4720 — HOSE and FLEXIBLE TUBING ..... 1-133

FSC 4730 — HOSE, PIPE, TUBE, LUBRICATION and RAILING FITTINGS ..... 1-141

## GROUP 48

### VALVES

FSC 4810 — VALVES, POWERED ..... 1-177

FSC 4820 — VALVES, NONPOWERED ..... 1-179

## GROUP 49

### MAINTENANCE and REPAIR SHOP EQUIPMENT

FSC 4930 — LUBRICATION and FUEL DISPENSING EQUIPMENT ..... 1-199

FSC 4940 — MISCELLANEOUS MAINTENANCE and REPAIR SHOP SPECIALIZED  
EQUIPMENT ..... 1-203

## GROUP 51

### HAND TOOLS

FSC 5110 — HAND TOOLS, EDGED, NONPOWERED ..... 1-205

FSC 5120 — HAND TOOLS, NONEDGED, NONPOWERED ..... 1-221

FSC 5130 — HAND TOOLS, POWER DRIVEN ..... 1-253

FSC 5133 — DRILL BITS, COUNTERBORES, and COUNTERSINKS: HAND and  
MACHINE ..... 1-255

FSC 5136 — TAPS, DIES, and COLLETS; HAND and MACHINE ..... 1-259

FSC 5140 — TOOL and HARDWARE BOXES ..... 1-265

FSC 5180 — SETS, KITS and OUTFITS of HAND TOOLS ..... 1-269





## **How to use the ASG Catalog.**

Each ASG Section has a complete Federal Supply Group/Class Index and an Alphabetical Index.

Each Section is in numeric order beginning with Page 1. Page Numbers are prefixed with the corresponding Section Number, for example: 1-25 is page 25 of Section 1. Accordingly, 3-30 is page 30 of Section 3.

## **Your Opinion Counts!**

The Afloat Shopping Guide production team at DLIS values your input. Our commitment to continuous product improvement relies on information from the catalog users. Please take a moment to E-mail us and let us know if you found the items you were looking for, or if you have any suggestions on how we can make this a better catalog.

**E-mail us at [dlis-support@dlis.dla.mil](mailto:dlis-support@dlis.dla.mil)**

If you do not have an Internet connection or E-mail capability, submit any feedback information to the Customer Contact Center:

**1-877-DLA-CALL or DSN: 661-7766**

## **WOULD YOU PAY \$500.00 FOR A HAMMER?**

Of course not, and Uncle Sam won't either. We've all heard horror stories about excessive prices being paid by the Government for supplies. Since its establishment, the Price Challenge Hotline has saved the Government millions of dollars. The Navy is committed to continuing the program's success in the future.

The person, best able, to identify instances of over-pricing is you, the customer. You are encouraged to take the time to consider if the price you are being charged is fair and reasonable. If you think you've found a case of over-pricing, please notify the Fitting Out and Supply Support Assistance Center (FOSSAC) by calling any of the numbers listed below. FOSSAC is the central point within the Navy for all pricing inquiries. Your challenge may also result in a cash award.

The Price Challenge Hotline voice mail, is available 24 hours per day, 7 days per week.

**Toll Free: 1-(800) 628-2425**

**DSN: 646-2006**

**Commercial: (757) 443-2006**

**Fax DSN: 646-2019 Commercial: 757-443-2019**

**Web site: <http://www.navsup.navy.mil>**

# ★ Publication Distribution

For Automatic Distribution submit your request to the Defense Logistics Information Service (DLIS), Customer Support Center by mail, email or phone. A CD-ROM of the ASG will be included with your Catalog.

DLIS-VSM Subscriptions Team  
Defense Logistics Information Service  
74 North Washington St. Suite 7  
Battle Creek, Michigan 49017-3084  
Email: Subscriptions[ @000d]lis.dla.mil  
Phone: DSN: 661-7766 Commercial: 269-961-7766  
Fax: DSN: 661-5305 Commercial: 269-961-5305

Include your Unit Identification Code (UIC), point of contact, phone number and complete mailing address. For optimum response to your needs, also include your activity SNDL number.

# ★ Problem Reporting

**Suspected data errors** should be addressed using the DLIS Publication Feedback Card provided in the back of the catalog.

**Comments, questions, suggestions and technical problems** may be directed to:

Defense Logistics Information Service  
ATTN: DLIS-VPH  
74 N Washington Avenue Suite 7  
Battle Creek, MI 49017-3084

**For Inquires contact:**

Defense Logistics Information Service  
Customer Contact Center  
DSN 661-7766 / 1-877-352-2255  
Email: dlis-support@dlis.dla.mil  
Fax: DSN 661-5305 / (269) 961-5305

# PRIME

## PLASTIC REMOVAL IN THE MARINE ENVIRONMENT

### **Dumping plastic at sea is harmful to the marine environment.**

Each year about 100,000 marine mammals and 1 million birds die from ingestion or entanglement in plastic debris.

Plastic washes up near shores and on beaches, posing a litter problem.

Floating plastic can be a navigation hazard.

**In accordance with the Marine Plastic Pollution Research and Control Act of 1987, U.S. Navy ships may no longer dispose of plastic at sea.**

### **What is being done about the problem from a supply standpoint?**

The PRIME Action Team at the Navy Inventory Control Point-Mech. is working to identify non-plastic substitutes for plastic consumables and packaging materials loaded on board ships.

As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### **What can you do?**

Make every effort to cut down on the amount of plastic coming aboard your ship by ordering those items annotated with "NP" or specified as non-plastics in the ASG in its item description.

If you know of an item packaged in or made of materials other than plastics that could replace plastic or plastic-packaged items at your duty station, then please notify the PRIME Program Manager by calling, Commercial (717) 605-9144 or DSN 430-9144, or by completing and faxing (717) 605-7686 or mailing the attached form.

**Together, we can make a difference in saving our marine environment.**



# PRIME

## RECOMMENDATION FOR NON-PLASTIC ITEM

**Recommend that the following non-plastic item be adopted for Navy shipboard use:**

Item Name \_\_\_\_\_

Description \_\_\_\_\_  
\_\_\_\_\_

NSN or Part Number \_\_\_\_\_

Manufacturer (or CAGE Code) \_\_\_\_\_

Unit of issue \_\_\_\_\_

Price \_\_\_\_\_

Other information \_\_\_\_\_  
\_\_\_\_\_

**Can the above item be substituted for a plastic item currently being used? If so what is it?**

Item Name \_\_\_\_\_

Description \_\_\_\_\_  
\_\_\_\_\_

NSN or Part Number \_\_\_\_\_

Manufacturer ( or CAGE Code) \_\_\_\_\_

Unit of issue \_\_\_\_\_

Price \_\_\_\_\_

Other information \_\_\_\_\_

**Fill in what you can and mail to the address on the reverse side. Please sign and give us your address and phone number should we need to contact you.**

Rank/Rate Name \_\_\_\_\_

Address \_\_\_\_\_

Phone Number(s) \_\_\_\_\_

**PRIME phone number at NAVICP-Mech is (717) 605-9144 or DSN 430-9144. Fax - (717) 605-7686**

-----  
DEPARTMENT OF THE NAVY  
\_\_\_\_\_

\_\_\_\_\_  
OFFICIAL BUSINESS

**COMMANDING OFFICER  
NAVAL INVENTORY CONTROL POINT-MECH  
PRIME PM (CODE M077.A)  
5450 CARLISLE PIKE  
PO BOX 2020  
MECHANICSBURG PA 17055-0788**

-----

**DO NOT STAPLE!**

Note: fold on the dotted lines and tape close.



THIS CATALOG IS  
**NOT TO BE USED**  
FOR OBTAINING  
FASTENERS FOR

# **LEVEL 1 / SUBSAFE SYSTEMS**

---

## **CAUTION:**

USE ONLY LEVEL 1/SUBSAFE STOCK  
PROGRAM FOR YOUR SYSTEM FASTENERS.

Main and auxiliary steam and catapult steam systems with a design temperature above 775 degess require Level 1 support. Use **NAVSEA Level 1 Catalog** 0948-LP-103-6010 to identify Level 1 fasteners, valves and piece parts. For other steam system fastener requirements, consult **Military Standard 777**.

**Naval Ship's Technical Manual** 0901-LP-075-0000 (S9086-CJ-STM-002), Chapter 075, provides additional information on the proper identification and use of threaded fasteners.

# TECHNICAL ASSISTANCE

**NOTE: Ask to speak to the Item Manager of your class**

<b>Defense Supply Center Columbus (DSCC)</b> ..... CLASSES: 2040, 2090, 3020, 3441, 4710, 4720, 4730, 4820, 4940, 5905, 5910, 5920, 5930, 5935, 5945, 5962, 5965, 5977, 5590, 5999, 6145, 6695, 6750	<b>Phone</b> (614) 692-2271 <b>DSN</b> 850-2271
<b>Defense Supply Center Richmond (DSCR)</b> ..... CLASSES: 3040, 3110, 3130, 3433, 3439, 3455, 3456, 3460, 3940, 4010, 4030, 4130, 4140, 4240, 4810, 5130, 5940, 5970, 5975, 6135, 6140, 6160, 6645, 6670, 6685, 6810, 6830, 6840, 6850, 8120, 9150, 9320, 9330, 9340, 9350, 9390	<b>Phone</b> (804) 279-4865 <b>DSN</b> 695-4865
<b>Defense Supply Center Philadelphia(DSCP)</b> ..... CLASSES: 3030, 4020, 4110, 4210, 4220, 4510, 4930, 5305, 5306, 5307, 5310, 5315, 5320, 5325, 5330, 5340, 5355, 5360, 5365, 5510, 5530, 6210, 6230, 6240, 6250, 6260, 6675, 7310, 7320, 7360, 8110, 8125, 9160, 9505, 9510, 9515, 9520, 9525, 9530, 9535, 9540	<b>Phone</b> (215) 737-2336 <b>DSN</b> 444-2336
<b>Defense Personnel Support Center (DPSC)</b> ..... CLASSES: 7210, 8305, 8310, 8315, 8340, 8345, 8405, 8410, 8415, 8420, 8430, 8435, 8440, 8455, 8460, 8465, 8470 .....	<b>Phone</b> (800) 413-6789
<b>General Products Commodity Center</b> ..... CLASSES: 5345, 5350, 5610, 5640, 5680, 7240, 7290, 7330, 7340, 7350, 7910, 7920, 7930, 9905 .....	<b>Phone</b> (817) 978-2051 <b>DSN</b> 874-3697/3698
<b>USA Tank Automotive (TACOM)</b> ..... CLASS: 2640 .....	<b>Phone</b> (810) 574-6245 <b>DSN</b> 786-6245
<b>National Furniture Center</b> ..... CLASSES: 7220, 7230 .....	<b>Phone</b> (703) 305-7003 <b>DSN</b> 664-0504
<b>Office and Supply and Paper Products</b> ..... CLASSES: 7510, 7520, 7530, 8105, 8115, 8135, 9310 .....	<b>Phone</b> (212) 264-0479
<b>Tools and Appliances Acquisition Center (GSA)</b> ..... CLASSES: 5110, 5120, 5133, 5136, 5140, 5180, 5210, 8010, 8020, 8030, 8040 .....	<b>Phone</b> (816) 926-7315 <b>DSN</b> 465-7315
<b>GSA National Customer Service Center</b> ..... CLASS: 9920 .....	<b>Phone</b> (800) 488-3111 <b>DSN</b> 465-1416

# SHIPBOARD APPROVED HABITABILITY STATEMENT

**CAUTION:** THIS SECTION IS NOT TO BE USED FOR  
OBTAINING SHIPBOARD APPROVED HABITABILITY  
EQUIPMENT

This Afloat Shopping Guide section **does not** contain any shipboard approved habitability equipment/items. Shipboard approved equipment/items **are** available on-line at:

<http://www.90machinery.navsses.navy.mil/habitability>

All habitability equipment/items not identified in the above catalogs must be approved, in writing, prior to shipboard installation. NAVSURFWARCEN SHIPSYSENGSTA Philadelphia PA message, 171945Z Oct 97, provides specific instructions for their approval. Questions may be directed to:

Naval Surface Warfare Center (NSWCCD-SSES)  
Ship Systems Engineering Station, Carderock Division  
5001 S. Broad St.  
Philadelphia Naval Business Center  
Philadelphia, PA 19112-1403  
Attn: Code 9783  
Telephone (215) 897-7317 (DSN 443-7317)  
Fax at (215) 897-7343 (DSN 443-7343).



## Section 1 Alphabetical Index

### A

ADAPTER,	
BUSHING .....	1-141
GREASE GUN COUPLING .....	1-199
QUICK CHANGE CHUCK .....	1-69
SOCKET WRENCH .....	1-221
STRAIGHT, FLANGE TO BOSS .....	1-141
STRAIGHT, FLANGE TO HOSE .....	1-141
STRAIGHT, HOSE TO BOSS .....	1-141
STRAIGHT, PIPE TO BOSS .....	1-142
STRAIGHT, PIPE TO GAS FITTING .....	1-142
STRAIGHT, PIPE TO HOSE .....	1-142
STRAIGHT, PIPE TO TUBE .....	1-142
STRAIGHT, SWIVEL FLANGE TO HOSE .....	1-141
STRAIGHT, TUBE TO BOSS .....	1-145
STRAIGHT, TUBE TO HOSE .....	1-146
TORQUE WRENCH .....	1-221
ADZ .....	1-205
AGITATOR, PAINT, SHAKER .....	1-203
ALIGNMENT TOOL,	
ELECTRONIC EQUIPMENT .....	1-221
PLUNGER .....	1-221
ANCHOR, MARINE, FLUKED .....	1-1
ANVIL, JEWELER'S .....	1-221
APPLICATOR, NOZZLE .....	1-107
ARBOR, HOLE SAW .....	1-69
ARM ASSEMBLY, HEATED .....	1-13
ARM HINGE ASSEMBLY .....	1-117
ARM, WINDSHIELD WIPER .....	1-13
AUGER MACHINE, PIPE AND SEWER, POWER OPERATED .....	1-203
AUGER,	
PIPE AND SEWER, HAND .....	1-221
WATER CLOSET, HAND .....	1-222
AURAL PROTECTOR, SOUND .....	1-117
AWL, SCRATCH .....	1-222
AX,	
PICK HEAD .....	1-107
SINGLE BIT .....	1-205

### B

BAFFLE,	
DECK DRAIN .....	1-123
SOLDER EXTRACTOR .....	1-55
BAG,	
BREATHING, OXYGEN .....	1-117
DIVING EQUIPMENT .....	1-114

DOCUMENT SINKING .....	1-13
LINEMAN'S TOOL, ROUND .....	1-265
SHIP TO SHIP TRANSFER .....	1-13
TOOL .....	1-265
TOOL, SATCHEL .....	1-265
WATERPROOF .....	1-120
BAIL, SHOCK ABSORBER .....	1-117
BALL END, WIRE ROPE, SWAGING .....	1-95
BALL,	
BEARING .....	1-33
VALVE, PORTED .....	1-107
BAND, ELASTIC .....	1-120
BAR,	
CHISEL .....	1-205
COMBINATION PRY AND SCRAPE .....	1-222
PINCH .....	1-222
PRY .....	1-222
RESCUE TOOL .....	1-222
SOCKET WRENCH HANDLE .....	1-222
WRECKING .....	1-222
BARBER KIT .....	1-77
BEARING SET, SLEEVE .....	1-44
BEARING UNIT, BALL .....	1-51
BEARING,	
BALL, AIRFRAME .....	1-33
BALL, ANNULAR .....	1-34
BALL, DUPLEX .....	1-35
BALL, ROD END .....	1-36
BALL, STACK .....	1-37
BALL, THRUST .....	1-37
CAN .....	1-41
PLAIN, ROD END .....	1-41
PLAIN, SELF-ALIGNING .....	1-42
PLAIN, SPHERICAL .....	1-43
ROLLER, AIRFRAME .....	1-37
ROLLER, CYLINDRICAL .....	1-37
ROLLER, JOURNAL .....	1-38
ROLLER, NEEDLE .....	1-38
ROLLER, ROD END .....	1-39
ROLLER, SPECIAL .....	1-39
ROLLER, TAPERED .....	1-39
SLEEVE .....	1-44
WASHER, THRUST .....	1-46
BELT,	
DIVER'S .....	1-114
FLAT .....	1-25
POSITIVE DRIVE .....	1-25
QUICK RELEASE .....	1-107
TOOL, REPAIRMAN'S .....	1-265
V .....	1-26

## Section 1 Alphabetical Index

<ul style="list-style-type: none"> <li>BELTING,                             <ul style="list-style-type: none"> <li>FLAT ..... 1-25</li> <li>V, ADJUSTABLE LINK ..... 1-29</li> </ul> </li> <li>BELTS, V, MATCHED SET ..... 1-28</li> <li>BENDER SET, TUBE, HAND ..... 1-222</li> <li>BENDER, TUBE, HAND ..... 1-222</li> <li>BINDER, LOAD ..... 1-85</li> <li>BIT SET,                             <ul style="list-style-type: none"> <li>AUGER ..... 1-255</li> <li>CENTER ..... 1-255</li> </ul> </li> <li>BIT,                             <ul style="list-style-type: none"> <li>AUGER ..... 1-255</li> <li>CENTER ..... 1-255</li> <li>EXPANSIVE ..... 1-255</li> <li>FORSTNER ..... 1-255</li> <li>SCREWDRIVER ..... 1-222</li> <li>WIRE WRAPPING, HAND ..... 1-223</li> </ul> </li> <li>BLADE,                             <ul style="list-style-type: none"> <li>BAND SAW ..... 1-63</li> <li>CARTON OPENER ..... 1-205</li> <li>CIRCULAR SAW, METAL CUTTING ..... 1-63</li> <li>COPING SAW ..... 1-205</li> <li>HAND HACKSAW ..... 1-205</li> <li>HOLE SAW ..... 1-63</li> <li>JEWELER'S SAW ..... 1-206</li> <li>KEYHOLE SAW ..... 1-206</li> <li>KNIFE ..... 1-205</li> <li>KNIFE, CRASH RESCUE ..... 1-206</li> <li>LOWER, SHEAR CUTTER ..... 1-67</li> <li>POWER HACKSAW ..... 1-63</li> <li>SHEARING MACHINE ..... 1-67</li> <li>SOLDERING UNIT ..... 1-55</li> <li>THERMAL STRIPPER ..... 1-64</li> <li>UPPER, SHEAR CUTTER ..... 1-67</li> <li>WINDSHIELD WIPER ..... 1-13</li> <li>WIRE STRIPPER ..... 1-206</li> </ul> </li> <li>BLANKET, FIRE ..... 1-107</li> <li>BLOCK,                             <ul style="list-style-type: none"> <li>LAPPING ..... 1-69</li> <li>TACKLE ..... 1-79</li> </ul> </li> <li>BLOWER, WATCHMAKER'S ..... 1-223</li> <li>BOARD, ABSENTEE, OFFICER'S ..... 1-13</li> <li>BOLT, FLUID PASSAGE ..... 1-148</li> <li>BOOTS, DIVERS' ..... 1-114</li> <li>BOTTLE, FUEL SAMPLE ..... 1-199</li> <li>BOWL,                             <ul style="list-style-type: none"> <li>SEDIMENT ..... 1-148</li> <li>WATER CLOSET ..... 1-123</li> </ul> </li> <li>BRACE, BIT RATCHET ..... 1-206</li> </ul>	<ul style="list-style-type: none"> <li>BRACKET, FIRE EXTINGUISHER ..... 1-107</li> <li>BRAZING ALLOY,                             <ul style="list-style-type: none"> <li>COPPER ..... 1-55</li> <li>SILVER ..... 1-55</li> </ul> </li> <li>BRAZING AND SOLDERING SET ..... 1-53</li> <li>BREATHING APPARATUS, OXYGEN                             <ul style="list-style-type: none"> <li>GENERATING ..... 1-117</li> </ul> </li> <li>BRUSH, WIRE, BATTERY ..... 1-223</li> <li>BUBBLER, DRINKING FOUNTAIN ..... 1-123</li> <li>BURNISHER, CONTACT, HAND ..... 1-223</li> <li>BUSHING,                             <ul style="list-style-type: none"> <li>DIESEL GENERATOR ..... 1-148</li> <li>PIPE ..... 1-148</li> <li>SLEEVE ..... 1-47</li> </ul> </li> </ul> <p style="text-align: center;"><b>C</b></p> <ul style="list-style-type: none"> <li>CABINET,                             <ul style="list-style-type: none"> <li>KEY ..... 1-13</li> <li>TOOL, MOBILE ..... 1-265</li> </ul> </li> <li>CAGE, VALVE ..... 1-179</li> <li>CANISTER, OXYGEN GENERATING,                             <ul style="list-style-type: none"> <li>BREATHING APPARATUS ..... 1-117</li> </ul> </li> <li>CAP ..... 1-114</li> <li>CAP,                             <ul style="list-style-type: none"> <li>CANISTER ..... 1-117</li> <li>HOSE ..... 1-149</li> <li>LUBRICATION FITTING, PROTECTIVE ..... 1-149</li> <li>PIPE ..... 1-149</li> <li>QUICK DISCONNECT ..... 1-149</li> <li>TUBE ..... 1-150</li> <li>VALVE ..... 1-179</li> </ul> </li> <li>CARRIER, TOOL ..... 1-265</li> <li>CARTRIDGE ASS'Y DISPOSABLE ..... 1-223</li> <li>CARTRIDGE,                             <ul style="list-style-type: none"> <li>CARBON DIOXIDE ..... 1-113</li> <li>FILTER, AIR BREATHING PUMP ..... 1-117</li> <li>GAS PRESSURE ..... 1-107</li> <li>RESPIRATOR, AIR FILTERING ..... 1-117</li> <li>SAFETY RELIEF VALVE ..... 1-179</li> <li>SHUT-OFF VALVE ..... 1-179</li> </ul> </li> <li>CASE,                             <ul style="list-style-type: none"> <li>EMERGENCY EQUIPMENT, LIFE RAFT ..... 1-113</li> <li>TWIST DRILL ..... 1-266</li> </ul> </li> <li>CATCH,                             <ul style="list-style-type: none"> <li>LEFT ..... 1-118</li> <li>RIGHT ..... 1-118</li> </ul> </li> <li>CAULKING IRON, WOOD ..... 1-223</li> <li>CHAIN ASSEMBLY, SINGLE LEG ..... 1-87</li> </ul>
--	--

## Section 1 Alphabetical Index

CHAIN,		COCK,	
BEAD .....	1-87	DRAIN .....	1-179
WELDED .....	1-87	PLUG .....	1-180
WELDLESS .....	1-87	POPPET DRAIN .....	1-180
CHAIR,		SHUTOFF, SCREW STEM.....	1-180
AVIATOR'S READY ROOM .....	1-13	COLLAR, HOLDING FIXTURE.....	1-224
BARBER.....	1-13	COLLET, WELDING TORCH.....	1-53
BOATSWAINS.....	1-13	COMPRESSOR, VALVE .....	1-180
PEDESTAL SHIPBOARD BRIDGE WING .....	1-13	CONE AND ROLLERS, TAPERED ROLLER	
PEDESTAL WATCHSTANDER'S .....	1-14	BEARING .....	1-39
STRAIGHT .....	1-14	CONNECTOR, MULTIPLE, FLUID PRESSURE ....	1-152
TRANSFER AT SEA.....	1-113	CONTACT POSITIONER TERMINAL CRIMPING	
CHEST, TOOL KIT.....	1-266	TOOL .....	1-224
CHIP DETECTOR, MAGNETIC.....	1-150	CONTAINER, GROMMET and PAINTER LINE	
CHISEL AND PUNCH KIT, METALWORKING .....	1-269	ASSEMBLY .....	1-113
CHISEL SET,		CONTROL VALVE, SHOWER .....	1-123
BUTT, WOOD-WORKING .....	1-207	CONTROLLER, WINDOW HEATER .....	1-14
COLD HAND.....	1-207	CORD ASSEMBLY, ELASTIC.....	1-93
FIRMER .....	1-207	CORD, FIBROUS .....	1-93
CHISEL,		COT, FOLDING .....	1-14
BLACKSMITH'S .....	1-206	COUNTERSINK.....	1-255
BRICK .....	1-206	COUNTERSINK AND DRILL SET .....	1-255
BUTT, WOOD-WORKING .....	1-206	COUNTERSINK SET.....	1-256
CAPE, HAND .....	1-206	COUPLING ASSEMBLY,	
COLD, HAND .....	1-206	EXHALATION.....	1-118
DIAMOND POINT, HAND .....	1-207	INHALATION.....	1-118
FIRMER .....	1-207	QUICK DISCONNECT .....	1-152
FLOOR.....	1-207	SELF-SEALING .....	1-152
HALF ROUND NOSE, HAND .....	1-207	COUPLING HALF,	
PARING .....	1-207	QUICK DISCONNECT .....	1-152
RIVET BUSTER, HAND.....	1-207	SELF-SEALING .....	1-156
SIDE CUTTING, HAND .....	1-207	COUPLING PIPE .....	1-156
CHUCK,		COUPLING,	
AIR INFLATING.....	1-150	GREASE GUN .....	1-199
DRILL.....	1-69	HOSE .....	1-108
ELECTRODE, IONIZER.....	1-69	TUBE .....	1-156
CLAMP,		COVER,	
C.....	1-223	LIFE PRESERVER.....	1-113
HOSE.....	1-150	VALVE .....	1-118
MASK, OXYGEN.....	1-152	VENTILATORY.....	1-1
MATERIAL LIFTING .....	1-83	CRIMPING TOOL, TERMINAL HAND .....	1-224
PLIER.....	1-223	CROW BAR .....	1-224
SCREW, QUICK ADJUSTING .....	1-223	CROWFOOT ATTACHMENT SOCKET WRENCH..	1-224
WIRE ROPE, BOLTED .....	1-95	CUP,	
WIRE ROPE, SADDLED.....	1-95	GREASE .....	1-157
WIRE ROPE, THREADED .....	1-95	PAINT, SPRAY GUN .....	1-203
CLAMPING TOOL OUTFIT, STRAP BAND, HOSE	1-269	TAPERED ROLLER BEARING.....	1-39
CLAMPING TOOL, STRAP BAND, HOSE.....	1-224		
CLEANER SET, WELDING AND CUTTING TIPS ..	1-55		
CLEAT, ROPE .....	1-1		
CLIPPER, HAIR .....	1-77		

## Section 1 Alphabetical Index

CUTTER AND FLARING TOOL KIT, TUBE, HAND	1-269	DISK,	
CUTTER BIT, TOOL HOLDER.....	1-64	MASK, INLET VALVE.....	1-118
CUTTER BUNDLE, SCALING AND SHIPPING TOOL .....	1-253	RUPTURABLE .....	1-182
CUTTER,		VALVE .....	1-182
BOLT .....	1-207	DISPENSER,	
CABLE, HAND OPERATED .....	1-207	DRINKING WATER, MECHANICALLY	
CIRCLE .....	1-208	COOLED .....	1-101
GLASS .....	1-208	FLUX SOLDER .....	1-55
HOLE FORMING, DRIVE SHANK BOLT.....	1-256	GRAPHITE .....	1-199
MILLING, END .....	1-64	PAPER TOWEL .....	1-123
PIPE.....	1-208	SEALANT .....	1-225
RIVET .....	1-208	SOAP .....	1-123
STEEL STRAPPING .....	1-208	TOILET PAPER.....	1-123
TILE, ASPHALT.....	1-208	DISPENSING PUMP, HAND DRIVEN.....	1-199
TUBE .....	1-209	DOOR, METAL, MARINE STRUCTURAL.....	1-4
WIRE ROPE, HAND OPERATED .....	1-209	DRAIN,	
CUTTING ATTACHMENT, WELDING TORCH .....	1-53	FLOOR.....	1-124
CUTTING WHEEL,		LAVATORY.....	1-124
PIPE CUTTER .....	1-209	MULTIPLE WASTE.....	1-124
TUBE CUTTER.....	1-209	SINK .....	1-124
CYLINDER ASSEMBLY, ACTUATING, LINEAR .....	1-31	DRESSER, ABRASIVE WHEEL, HAND.....	1-225
CYLINDER,		DRIER, HAND, ELECTRIC .....	1-124
CARBON DIOXIDE.....	1-113	DRIFT, DRILL.....	1-225
COMPRESSED GAS.....	1-108	DRILL BLANK SET.....	1-256
<b>D</b>		DRILL SET,	
DEFLECTOR, VALVE, MASK .....	1-118	MASONRY, HAND.....	1-210
DEMAGNETIZER.....	1-203	TWIST .....	1-257
DESK,		DRILL,	
FLAT TOP .....	1-14	BREAST .....	1-209
LOG .....	1-14	ELECTRIC, PORTABLE .....	1-253
DESOLDERING TOOL .....	1-55	HAND.....	1-209
DESOLDERING TOOL, ELECTRIC .....	1-55	MASONRY, HAND.....	1-209
DESOLDERING WICK .....	1-55	PUSH.....	1-210
DIAPHRAGM,		TWIST.....	1-256
ACTUATOR VALVE, SPECIAL SHAPED .....	1-181	DRILL-DRIVER, ELECTRIC, PORTABLE.....	1-253
VALVE, FLAT.....	1-181	DUPLEX RACE BALL AND ROLLER.....	1-40
DIE AND TAP SET, THREAD CUTTING.....	1-260	<b>E</b>	
DIE SET, METAL STAMPING, HAND.....	1-209	ELBOW,	
DIE,		BOSS .....	1-158
CRIMPING TOOL.....	1-225	FLANGE .....	1-158
RETHREADING .....	1-259	HOSE.....	1-158
THREAD CUTTING.....	1-259	PIPE.....	1-158
DIESTOCK .....	1-259	PIPE TO TUBE.....	1-159
DISASSEMBLY TOOL, BEARING HOUSING .....	1-225	SWIVEL FLANGE TO TUBE .....	1-160
DISCONNECT, FILTERED .....	1-157	TUBE .....	1-160
		TUBE TO BOSS.....	1-161
		TUBE TO HOSE.....	1-161
		ELECTRODE .....	1-55



## Section 1 Alphabetical Index

ELECTRODE,		FILE HOLDER .....	1-212
CUTTING, SOLID.....	1-55	FILE SET, HAND .....	1-212
RESISTANCE HEATING, SOLDERING AND		FILE,	
BRAZING .....	1-55	HAND.....	1-210
WELDING.....	1-55	ROTARY .....	1-65
ELEMENT, SOLDER REFLOW .....	1-56	THREAD RESTORER .....	1-212
ESCAPE APPLIANCE ASSEMBLY.....	1-113	FILING CABINET .....	1-14
ETCHER, ELECTRIC .....	1-253	FILTER AND OILER, AIRLINE .....	1-199
EXPANDER,		FILTER ELEMENT, AIR CONDITIONING.....	1-103
PISTON SEAL.....	1-225	FILTER MEDIA, AIR CONDITIONING.....	1-103
TUBE .....	1-67	FILTER,	
EXPANSION JOINT, PIPE.....	1-162	PARTICULATE .....	1-118
EXTENSION, SOCKET WRENCH.....	1-225	RESPIRATOR, AIR FILTERING.....	1-118
EXTINGUISHER,		FILTER-DRIER, REFRIGERANT .....	1-103
FIRE, CARBON DIOXIDE .....	1-108	FINGER, MECHANICAL.....	1-226
FIRE, DRY CHEMICAL.....	1-108	FIRE STARTING TOOL, MAGNESIUM .....	1-118
FIRE, FOAM .....	1-108	FISHING KIT, EMERGENCY.....	1-113
FIRE, WATER .....	1-108	FITTING,	
EXTRACTOR SET, SCREW.....	1-226	LUBRICATION .....	1-162
EXTRACTOR,		SWIVEL.....	1-163
CIRCUIT.....	1-225	TEST VALVE .....	1-183
ELECTRON TUBE.....	1-225	FLANGE, PIPE .....	1-163
LAMP .....	1-225	FLARING TOOL, TUBE HAND .....	1-227
SCREW.....	1-225	FLINT TIP, FRICTION IGNITER.....	1-227
SCREW THREAD INSERT .....	1-226	FLUSH CONNECTION, URINAL-WATER	
STUFFING BOX AND PUMP PACKING.....	1-226	CLOSET BOWL .....	1-125
TAP .....	1-226	FLUX,	
EYEGUARD.....	1-1	BRAZING .....	1-56
		SOLDERING.....	1-56
<b>F</b>		FOAM LIQUID, FIRE EXTINGUISHING .....	1-108
FACE PIECE, OXYGEN BREATHING.....	1-118	FORCE CUP, PLUMBER'S .....	1-227
FACE, HAMMER, INSERTED .....	1-226	FORCEPS, SHEET HOLDER .....	1-227
FACESHIELD, INDUSTRIAL .....	1-118	FOUNTAIN, EYE AND FACE WASH.....	1-118
FAN,		FRAME,	
CIRCULATING .....	1-105	COPING SAW.....	1-212
TUBEAXIAL.....	1-105	HAND HACKSAW .....	1-212
VANEAXIAL .....	1-105	JEWELER'S SAW .....	1-212
FASTENER, BEAD CHAIN.....	1-95		
FAUCET,		<b>G</b>	
DOUBLE.....	1-124	GAGE SET, DIVER'S.....	1-114
SINGLE .....	1-125	GAGE, DEPTH, DIVER'S.....	1-114
FENDER,		GAUGE, SEA DIVER'S.....	1-114
BOAT.....	1-1	GEAR, SPUR.....	1-23
MARINE .....	1-1	GEARSHAFT, SPUR .....	1-31
FERRULE, WIRE ROPE .....	1-95		
FIBER ROPE ASSEMBLY, SINGLE LEG .....	1-93		
FID.....	1-226		



## Section 1 Alphabetical Index

SPECTACLES, MASK .....	1-119	LEVER, MANUAL CONTROL.....	1-200
TUBE FITTING .....	1-164	LIFE BOAT INFLATING ASSEMBLY .....	1-113
INSERTER AND REMOVER, STUD .....	1-230	LIFE PRESERVER, YOKE .....	1-114
INSERTER, ELECTRICAL CONTACT.....	1-230	LINK,	
INSTALLATION TOOL, CABLE TIE .....	1-230	CHAIN, CONNECTING.....	1-88
INSTALLING AND REMOVAL TOOL,		CHAIN, DETACHABLE .....	1-88
CONNECTOR ELECTRICAL CONTACT .....	1-230	CHAIN, END.....	1-88
ELECTRICAL CONTACT .....	1-230	FUSIBLE, FIRE .....	1-109
INSTALLING TOOL, TUBE PACKING RING .....	1-230	ROLLER CHAIN.....	1-23
INTRENCHING TOOL, HAND .....	1-230	LOCK ARM ASSEMBLY .....	1-2
<b>J</b>		LOCKER,	
JACK KIT, HYDRAULIC, HAND .....	1-230	CLOTHING .....	1-15
JACK, HYDRAULIC, HAND.....	1-230	MEDICAL .....	1-15
JACKET, BUOYANCY AID.....	1-113	SAFE.....	1-15
		STOWAGE.....	1-15
		LOCKING DEVICE, VALVE .....	1-183
		LOCKNUT, TUBE FITTING .....	1-165
		LUBRICATING GUN, HAND.....	1-200
		LUBRICATING UNIT, POWER OPERATED.....	1-200
		LUBRICATION FITTING TOOL.....	1-232
<b>K</b>		<b>M</b>	
KEY SET, SOCKET HEAD SCREW .....	1-231	MACHETE, RIGID HANDLE .....	1-214
KEY,		MALLET,	
DRILL CHUCK.....	1-69	RAWHIDE.....	1-232
SOCKET HEAD SCREW.....	1-231	RUBBER .....	1-232
KIT, REPLACEMENT AIRLINE FILTER.....	1-119	WOOD.....	1-232
KNIFE SET, CRAFTSMAN'S.....	1-214	MANDREL,	
KNIFE,		MACHINE, SOLID .....	1-69
CRAFTSMAN'S.....	1-213	ROLLER TUBE EXPANDER .....	1-67
DIVER'S .....	1-114	MANDREL-FLANGE.....	1-69
DRAW .....	1-213	MANIFOLD, AIR LINE.....	1-114
ELECTRIC HEATING .....	1-213	MARLINE .....	1-93
FOLDING .....	1-213	MARLINESPIKE.....	1-232
POCKET.....	1-213	MASK,	
PUTTY .....	1-232	AIR FILTERING.....	1-120
RESCUE .....	1-213	AIRLINE .....	1-120
SCRAPING.....	1-213	CHEMICAL-BIOLOGICAL MCU-2/P .....	1-120
		DIVER'S .....	1-115
<b>L</b>		MATTOCK .....	1-232
LADDER, JACOB'S .....	1-15	MINI-GUN, HOTAIR.....	1-203
LANYARD,		MIRROR,	
SAFETY BELT .....	1-119	INSPECTION.....	1-232
SAFETY HARNESS .....	1-119	REPLACEMENT, INSPECTION.....	1-233
LAVATORY.....	1-126	MITER BOX .....	1-214
LENS RING KIT ASSEMBLY.....	1-120	MOUTHPIECE, REGULATOR.....	1-115
LENS,			
COVER.....	1-119		
FACE PIECE, OXYGEN BREATHING.....	1-119		
GOGGLE, INDUSTRIAL .....	1-120		
HELMET, WELDER'S .....	1-120		

## Section 1 Alphabetical Index

MULTI-TOOL, FOLDING, POCKET .....	1-214	PADDLE, BOAT .....	1-2
MULTIPLIER, TORQUE WRENCH .....	1-233	PALM, SEWING .....	1-233
<b>N</b>			
NAIL SET ASSORTMENT .....	1-233	PARTS KIT,	
NET, LAUNDRY.....	1-73	CHECK VALVE .....	1-183
NIB, DIAMOND, WHEEL DRESSING .....	1-70	FAUCET .....	1-126
NIBBLING TOOL, SHEET METAL .....	1-214	FAUCET, WASHER.....	1-126
NIPPERS, END CUTTING .....	1-214	FLUSH VALVE .....	1-126
NIPPLE,		GLOBE VALVE .....	1-183
BOSS .....	1-165	LIFE PRESERVER.....	1-114
HOSE.....	1-109	NOZZLE APPLICATOR.....	1-110
PIPE.....	1-165	NOZZLE WEB.....	1-168
TUBE .....	1-167	SEDIMENT STRAINER .....	1-168
NOSE ASSEMBLY, FASTENER REMOVAL TOOL .	1-233	SHOWER HEAD .....	1-126
NOSECUP ASSEMBLY .....	1-121	SPRAY GUN .....	1-203
NOZZLE APPLIANCE .....	1-110	SWIVEL JOINT .....	1-169
NOZZLE,		THROTTLE CONTROL LEVER.....	1-110
CAULKING GUN .....	1-233	URINAL .....	1-126
DISTRIBUTION, WATER.....	1-167	VALVE .....	1-183
FIRE HOSE .....	1-110	VALVE TRAP .....	1-183
FUEL AND OIL SERVICING .....	1-200	WATER CLOSET.....	1-127
GARDEN HOSE.....	1-167	WATER MIXING VALVE .....	1-127
SPRAY, FLUID-EMULSION.....	1-167	PIN ASSEMBLY, SAFETY .....	1-110
NUT AND SCREWDRIVER.....	1-233	PINCH-OFF TOOL, TUBING .....	1-233
NUT,		PIPE,	
HOSE COUPLING .....	1-167	METALLIC .....	1-129
SLIP JOINT .....	1-167	PLASTIC .....	1-130
TUBE COUPLING .....	1-167	PISTON, VALVE .....	1-183
<b>O</b>			
OAR .....	1-2	PLANE,	
OILER,		BLOCK .....	1-214
AIRLINE .....	1-200	JACK.....	1-214
HAND.....	1-200	RABBET .....	1-214
SELF FEEDING .....	1-200	SMOOTH.....	1-214
OPENER, CARTON .....	1-214	PLATE,	
OUTLET, PIPE .....	1-168	FRONT .....	1-101
OUTSERT ASSEMBLY .....	1-120	PROBE ASSEMBLY .....	1-2
<b>P</b>			
PACKING NUT .....	1-168	RETAINING, BEARING.....	1-40
PAD ASSEMBLY, LIFTING BRACE.....	1-2	THROTTLING .....	1-183
PAD EYE .....	1-2	PLIERS .....	1-233
PAD, WIPE, RESPIRATOR.....	1-121	PLIERS,	
		BRAKE REPAIR .....	1-234
		DIAGONAL CUTTING .....	1-214
		RETAINING RING .....	1-234
		SLIP JOINT .....	1-235
		WIRE TWISTER.....	1-236
		PLUG AND FLANGE .....	1-16
		PLUG,	
		HOSE.....	1-110
		LOCKING, DETACHABLE CHAIN LINK.....	1-96
		OIL, GEAR SHAFT .....	1-169
		PIPE.....	1-169
		QUICK DISCONNECT.....	1-169

## Section 1 Alphabetical Index

<p>SHANK, ARRESTIN ..... 1-169</p> <p>TUBE FITTING, THREADED ..... 1-169</p> <p>TUBE REPAIR ..... 1-170</p> <p>PLUNGER,</p> <p style="padding-left: 20px;">FUEL RECEIVER..... 1-2</p> <p style="padding-left: 20px;">PACKING..... 1-2</p> <p>PORTLIGHT ..... 1-2</p> <p>POUCH ASSEMBLY,</p> <p style="padding-left: 20px;">DYE MARKER..... 1-114</p> <p style="padding-left: 20px;">FLARE..... 1-115</p> <p>POUCH,</p> <p style="padding-left: 20px;">LIFE PRESERVER..... 1-114</p> <p style="padding-left: 20px;">MECHANIC'S TOOLS..... 1-266</p> <p>PRERINSE SPRAY UNIT..... 1-127</p> <p>PRESS, LEAD SEAL, HAND..... 1-236</p> <p>PRESSURIZING KIT, RADIO ..... 1-203</p> <p>PROPORTIONER, FOAM LIQUID INJECTION PUMP TYPE ..... 1-110</p> <p>PULLER KIT, UNIVERSAL..... 1-269</p> <p>PULLER,</p> <p style="padding-left: 20px;">BATTERY TERMINAL..... 1-236</p> <p style="padding-left: 20px;">FUZE ..... 1-236</p> <p style="padding-left: 20px;">MECHANICAL ..... 1-236</p> <p>PULLEY, GROOVE..... 1-23</p> <p>PUMP LUBRICANT TRANSFER ..... 1-201</p> <p>PUMP, BUCKET, LUBRICATING HAND ..... 1-201</p> <p>PUNCH AND DIE SET,</p> <p style="padding-left: 20px;">KNOCKOUT..... 1-215</p> <p style="padding-left: 20px;">METAL CUTTING, HAND ..... 1-215</p> <p>PUNCH AND DIE,</p> <p style="padding-left: 20px;">GROMMET INSERTING ..... 1-237</p> <p style="padding-left: 20px;">KNOCKOUT..... 1-215</p> <p>PUNCH SET,</p> <p style="padding-left: 20px;">ALIGNING ..... 1-238</p> <p style="padding-left: 20px;">CUTTING, DOUBLE BOW ..... 1-216</p> <p style="padding-left: 20px;">DRIVE PIN..... 1-237</p> <p>PUNCH,</p> <p style="padding-left: 20px;">ALIGNING ..... 1-237</p> <p style="padding-left: 20px;">CENTER, AUTOMATIC..... 1-237</p> <p style="padding-left: 20px;">CENTER, SOLID..... 1-237</p> <p style="padding-left: 20px;">CUTTING, DOUBLE BOW ..... 1-215</p> <p style="padding-left: 20px;">CUTTING, REVOLVING HEAD ..... 1-215</p> <p style="padding-left: 20px;">CUTTING, SINGLE BOW..... 1-215</p> <p style="padding-left: 20px;">DRIFT ..... 1-237</p> <p style="padding-left: 20px;">DRIVE PIN..... 1-237</p> <p style="padding-left: 20px;">PRICK ..... 1-237</p> <p style="padding-left: 20px;">TUBE BELLING, HAND ..... 1-237</p>	<p style="text-align: center; font-weight: bold; font-size: 1.2em;">R</p> <p>RACK,</p> <p style="padding-left: 20px;">BOOK..... 1-16</p> <p style="padding-left: 20px;">FIRE HOSE ..... 1-110</p> <p style="padding-left: 20px;">MAGAZINE ..... 1-16</p> <p style="padding-left: 20px;">TOWEL..... 1-127</p> <p>RAKE, FOREST FIRE ..... 1-110</p> <p>RASP, HAND ..... 1-216</p> <p>RATGUARD, SHIP..... 1-2</p> <p>RATLINE..... 1-93</p> <p>REAMER SET, HAND..... 1-217</p> <p>REAMER,</p> <p style="padding-left: 20px;">CYLINDER RIDGE ..... 1-216</p> <p style="padding-left: 20px;">HAND..... 1-216</p> <p>RECONDITIONING TOOL, PISTON RING GROOVE ..... 1-217</p> <p>REDUCER,</p> <p style="padding-left: 20px;">BOSS ..... 1-170</p> <p style="padding-left: 20px;">HOSE ..... 1-110</p> <p style="padding-left: 20px;">PIPE..... 1-171</p> <p style="padding-left: 20px;">TUBE ..... 1-171</p> <p>REEL,</p> <p style="padding-left: 20px;">ASSEMBLY, HOSE ..... 1-201</p> <p style="padding-left: 20px;">STATIC, DISCHARGE..... 1-201</p> <p>REFRIGERATOR-FREEZER, MECHANICAL, FOOD..... 1-101</p> <p>REMOVAL TOOL KIT, CONNECTOR ELECTRICAL CONTACT ..... 1-238</p> <p>REMOVAL TOOL, SPECIAL..... 1-238</p> <p>REMOVER PIN ..... 1-238</p> <p>REMOVER, ELECTRICAL CONTACT..... 1-238</p> <p>REMOVING TOOL..... 1-238</p> <p>REPAIR KIT,</p> <p style="padding-left: 20px;">INFLATABLE CRAFT ..... 1-16</p> <p style="padding-left: 20px;">METALLIC PIPE AND GENERAL PURPOSE, DAMAGE CONTROL..... 1-171</p> <p style="padding-left: 20px;">PIPE, EMERGENCY DAMAGE CONTROL ..... 1-171</p> <p style="padding-left: 20px;">PUNCTURE, PNEUMATIC TIRE ..... 1-21</p> <p>REPAIR TOOL, PNEUMATIC TIRE VALVE ..... 1-238</p> <p>RESPIRATOR, AIR FILTERING KIT..... 1-121</p> <p>RESTORER, THREAD ..... 1-260</p> <p>RESTRICTOR UNIT, FLUID FLOW ..... 1-172</p> <p>RESTRICTOR, FLUID FLOW ..... 1-171</p> <p>RETAINER AND BALLS, BEARING..... 1-40</p> <p>RETAINER AND ROLLERS, BEARING..... 1-40</p>
---	--

## Section 1 Alphabetical Index

RETAINER,		SCRAPER,	
BALL, BEARING .....	1-40	BEARING .....	1-217
CONNECTOR .....	1-172	CARBON, FLEXIBLE .....	1-218
DISK, VALVE .....	1-183	GLASS, RAZOR BLADE .....	1-218
RETRIEVING TOOL, MAGNETIC .....	1-238	SHIP .....	1-218
RING BUOY, LIFESAVING .....	1-114	WOOD .....	1-218
RING,		SCREW GUIDE .....	1-258
BEARING, INNER .....	1-40	SCREW STARTER, HAND .....	1-238
WELDING, PIPE JOINT .....	1-172	SCREWDRIVER BIT SET AND HANDLE .....	1-240
RIVETER KIT, BLIND, HAND .....	1-269	SCREWDRIVER SET .....	1-241
RIVETER, BLIND HAND .....	1-238	SCREWDRIVER SET,	
ROD, WELDING .....	1-57	CROSS TIP .....	1-240
ROLL, TOOLS AND ACCESSORIES .....	1-266	CROSS TIP, STRAIGHT AND OFFSET .....	1-240
ROLLER ASSEMBLY .....	1-40	FLAT TIP .....	1-240
ROLLER,		FLAT TIP AND CROSS TIP .....	1-241
BEARING .....	1-40	JEWELER'S SWIVEL KNOB .....	1-241
LINEAR-ROTARY MOTION .....	1-50	SCREWDRIVER,	
ROPE,		CROSS TIP .....	1-239
FIBROUS .....	1-93	FLAT TIP .....	1-239
WIRE .....	1-88	JEWELERS, SWIVEL KNOB .....	1-240
ROTARY TOOL KIT, ELECTRIC .....	1-253	OFFSET .....	1-240
ROUTER, ELECTRIC, PORTABLE .....	1-253	RATCHET .....	1-240
		SCRIBER,	
<b>S</b>		DIAMOND POINT .....	1-241
SANDER,		MACHINIST'S .....	1-241
DISK, ELECTRIC, PORTABLE .....	1-253	SCUTTLE, MARINE .....	1-11
DISK, PNEUMATIC, PORTABLE .....	1-254	SEA ANCHOR .....	1-3
SANDER-GRINDER, DISK, PNEUMATIC, PORTABLE .....	1-254	SEAL NUT, PIPE .....	1-172
SAW,		SEAL RING, CLOSET BOWL FLANGE .....	1-127
BACK .....	1-217	SEAL,	
BOW .....	1-217	CONICAL, FLARED TUBE FITTING .....	1-172
CIRCULAR, GASOLINE, PORTABLE .....	1-254	DOME .....	1-121
CIRCULAR, PORTABLE, ELECTRIC .....	1-254	SEAT AND GASKET .....	1-172
HAND, CROSSCUT .....	1-217	SEAT,	
HAND, FINGER GRIP .....	1-217	BALL .....	1-172
HAND, RIP .....	1-217	BEARING .....	1-40
JIG, ELECTRIC, PORTABLE .....	1-254	VALVE .....	1-184
KEYHOLE .....	1-217	WATER CLOSET .....	1-127
RECIPROCATING, PORTABLE, ELECTRIC ...	1-254	SEIZER, SOLDERING .....	1-241
SAWS, NESTED .....	1-217	SEPARATOR, OIL AND WATER, SPRAY GUN .....	1-203
SCALER, PNEUMATIC, PORTABLE .....	1-254	SERVER, DINING ROOM .....	1-16
SCISSORS,		SET BLOCK AND TACKLE .....	1-82
ELECTRICIANS' .....	1-217	SHACKLE .....	1-96
LADIES' .....	1-217	SHACKLE,	
POCKET .....	1-217	SIDE .....	1-82
SPRING ACTION .....	1-217	TOP .....	1-83
SCRAPER SET, BEARING .....	1-218	SHAFT SHOULDERED .....	1-31
		SHANK, ADAPTER .....	1-70

## Section 1 Alphabetical Index

SHEARS,		ELECTRIC.....	1-58
BENT TRIMMERS.....	1-218	SOLDERING PENCIL, ELECTRIC .....	1-58
METAL CUTTING, HAND .....	1-218	SOLDERING STATION.....	1-58
PINKING.....	1-219	SPATULA SET .....	1-243
STRAIGHT TRIMMERS.....	1-219	SPECTACLES, INDUSTRIAL .....	1-121
TAILOR'S.....	1-219	SPLIT MANDREL.....	1-70
SHIELD, SAFETY, PIPE FLANGE .....	1-172	SPLITTING TOOL, NUT.....	1-219
SHORE, DAMAGE CONTROL ADJUSTABLE .....	1-16	SPOKESHAVE.....	1-219
SHOVEL, HAND.....	1-241	SPONGE AND TRAY, TIP CLEANER.....	1-58
SHOWER BATH FIXTURE.....	1-127	SPRAY GUN, PAINT.....	1-203
SHOWER HEAD .....	1-127	SPRAY KIT, SELF PRESSURIZED.....	1-204
SIAMESE CONNECTION, FIRE HOSE .....	1-111	SPRING, REINFORCING, HOSE .....	1-140
SLEEVE,		SPRINKLER TYPE .....	1-111
BULKHEAD and DECK.....	1-3	SPUD, WATER CLOSET.....	1-173
CHANNEL BAND .....	1-172	SPUDGER.....	1-243
CLINCH, TUBE FITTING .....	1-172	STEM, FLUID VALVE.....	1-184
COMPRESSION, TUBE-HOSE FITTING .....	1-173	STOOL, REVOLVING .....	1-16
FLARED, TUBE FITTING.....	1-173	STOPPER, WASTE DRAIN.....	1-127
REINFORCING, HOSE.....	1-140	STRAINER ELEMENT, SEDIMENT .....	1-173
SAFETY, CLIMBING.....	1-121	STRAINER,	
SLIDE HAMMER, GROUND ROD .....	1-242	HULL INTAKE .....	1-3
SLING,		PRESSURE, FIRE HOSE .....	1-111
CARGO, NET.....	1-83	SEDIMENT .....	1-174
ENDLESS.....	1-83	SUCTION .....	1-174
MULTIPLE LEG.....	1-83	STRAND, WIRE .....	1-89
PALLET .....	1-84	STRAP,	
SLOTTER AND SCRAPER, COMMUTATOR,		HOSE REEL .....	1-201
HAND.....	1-219	SAFETY, INDUSTRIAL .....	1-122
SNORKEL .....	1-115	WRIST GROUNDING .....	1-122
SOCKET SET, SOCKET WRENCH .....	1-242	STRAPPING AND SEALING KIT.....	1-75
SOCKET WRENCH ATTACHMENT,		STRETCHER, STRAPPING, HAND .....	1-75
SCREWDRIVER .....	1-243	STRIPPER,	
SOCKET,		CABLE, HAND .....	1-219
SOCKET WRENCH.....	1-242	WIRE, HAND .....	1-219
TAPER SHANK TOOL .....	1-70	SUPPORT, FACE PIECE .....	1-122
WIRE ROPE .....	1-97	SWAGING SLEEVE, WIRE ROPE.....	1-98
WRENCH, FACE SPANNER .....	1-243	SWEATBAND, WELDERS HELMET .....	1-122
SOLDER EXTRACTOR, TIP .....	1-57	SWIM FINS.....	1-115
SOLDER,		SWING JOINT, TUBE .....	1-174
LEAD ALLOY .....	1-57	SWIVEL JOINT, HYDRAULIC.....	1-174
LEAD-TIN ALLOY.....	1-57	SWIVEL, LINK AND JAW.....	1-98
TIN ALLOY .....	1-57		
SOLDERING AID TOOL .....	1-57		
SOLDERING AND BRAZING OUTFIT,			
RESISTANCE HEATING .....	1-57		
SOLDERING GUN .....	1-58		
SOLDERING IRON,			
CORDLESS, ELECTRIC.....	1-58		

## Section 1 Alphabetical Index

### T

TAB, PULL, BREATHING .....	1-122	GENERAL MECHANIC'S.....	1-271
TABLE, DINING.....	1-16	GENERAL OFFICE REPAIR .....	1-272
TACKER .....	1-243	HIGHWAY SAFETY .....	1-272
TAILPIECE, WASTE DRAIN.....	1-128	MEDICAL EQUIPMENT.....	1-272
TANK, PRESSURE-FEED, FINISHING- MATERIAL .....	1-204	MULTI PLIER.....	1-220
TAP SET, THREAD CUTTING .....	1-262	PERSONAL COMPUTER .....	1-272
TAP, THREAD CUTTING.....	1-260	REFRIGERATION EQUIPMENT.....	1-272
TAPE,		SCREW THREAD INSERT .....	1-272
DIVER'S MASK.....	1-115	SURVIVAL, OFFROAD .....	1-273
LACING AND TYING .....	1-94	TEST SET .....	1-273
TEE,		TUBE FLARING HAND OPERATED.....	1-273
BOSS.....	1-174	TUNE UP.....	1-273
PIPE.....	1-174	WELDER'S .....	1-273
PIPE TO TUBE .....	1-175	TOOL RETAINER.....	1-267
TUBE .....	1-175	TOOL SET, AIR COMPRESSOR.....	1-273
TUBE TO BOSS.....	1-176	TOOL,	
TERMINAL,		ANTI-WICKING .....	1-244
WIRE ROPE, STUD .....	1-98	WIRE UNWRAPPING, HAND .....	1-244
WIRE ROPE, SWAGING.....	1-99	TORCH BODY, WELDING.....	1-53
THERMAL ELEMENT, TEMPERATURE REGULATOR .....	1-185	TORCH OUTFIT, CUTTING AND WELDING .....	1-54
THIMBLE, ROPE.....	1-99	TORCH,	
THREAD CUTTER, DIE HEAD, HAND .....	1-262	CUTTING .....	1-53
THREADING SET,		WELDING.....	1-53
PIPE.....	1-269	TORQUE SCREWDRIVER KIT .....	1-273
SCREW.....	1-269	TRAP,	
TIP,		DRAIN, PLUMBING FIXTURE .....	1-128
CUTTING TORCH.....	1-53	STEAM.....	1-176
DESOLDERING, SUCTION DEVICE.....	1-58	TRAVELER ASSEMBLY, FIXED .....	1-122
ELECTRIC SOLDERING GUN.....	1-58	TREAD, METALLIC, NONSKID .....	1-16
ELECTRIC SOLDERING IRON .....	1-58	TROUSER, FLIGHT DECK .....	1-111
NOZZLE, FIRE HOSE .....	1-111	TROWEL .....	1-244
RESISTANCE SOLDERING.....	1-59	TUBE AND FLUE CLEANER, BOILER, INTERNAL.....	1-204
SOLDER EXTRACTOR .....	1-59	TUBE ASSEMBLY,	
TIRE, PNEUMATIC, VEHICULAR.....	1-19	METAL.....	1-132
TOOL BOX, PORTABLE .....	1-266	TEST.....	1-111
TOOL CABINET, REPAIR .....	1-267	TUBE,	
TOOL KIT,		BREATHING .....	1-122
AIR TUBING .....	1-270	BREATHING BAG .....	1-122
AUTOMOTIVE ELECTRICAL .....	1-270	DRINKING .....	1-120
BLIND RIVET.....	1-271	METALLIC .....	1-130
CARPENTER'S.....	1-271	TUBING ASSEMBLY, NONMETALLIC.....	1-140
ELECTRICAL CONTACT .....	1-271	TUBING, NONMETALLIC .....	1-140
ELECTRICAL REPAIR.....	1-271	TUNING WAND, ELECTRONIC EQUIPMENT .....	1-244
ELECTRICIAN'S .....	1-271	TURRET HEAD ASSEMBLY, CONTACT POSITIONER, CRIMPING TOOL .....	1-244
ELECTRONIC SYSTEM .....	1-271	TWEEZER, RESISTANCE SOLDERING.....	1-59
		TWEEZERS, CRAFTSMAN'S .....	1-244



## Section 1 Alphabetical Index

TWINE, FIBROUS.....	1-94	SOLENOID.....	1-177
<b>U</b>		STOP CHECK.....	1-196
ULTRASONIC DEGREASER.....	1-204	VACUUM BREAKING.....	1-197
UNION, PIPE.....	1-176	VENT.....	1-197
UNIVERSAL JOINT, SOCKET WRENCH ATTACHMENT.....	1-244	WATER MIXING.....	1-128
URINAL, STATIONARY.....	1-128	Y.....	1-197
<b>V</b>		WISE PIN.....	1-245
V-BLOCK SET, MATCHED.....	1-70	WISE, BENCH AND PIPE.....	1-245
VALVE ASSEMBLY.....	1-186	BENCH, CLAMP BASE.....	1-245
VALVE ASSEMBLY, COMBINATION.....	1-122	MACHINE TABLE.....	1-70
EXHALATION.....	1-122	MACHINIST'S.....	1-245
INHALATION.....	1-122	MULTIPOSITION.....	1-245
PRESSURE VENT.....	1-186	VOICEMITTER, ASSEMBLY.....	1-121
VALVE CORE.....	1-21	<b>W</b>	
VALVE EXTENSION, TIRE.....	1-21	WARDROBE.....	1-16
VALVE, ANGLE.....	1-185	WEDGE, JOINT BREAKING.....	1-245
BALL.....	1-186	WEIGHT, CANVAS BAG.....	1-16
BLEEDER, HYDRAULIC SYSTEM.....	1-187	DIVER'S.....	1-115
BUTTERFLY.....	1-187	WHEEL, ABRASIVE.....	1-70
CALIBRATED FLOW.....	1-187	BUFFING.....	1-71
CHECK.....	1-187	FLAP ABRASIVE.....	1-71
CONTROL, AUTOMATIC SPRINKLER.....	1-111	WINDOW, HEATED, ELECTRICAL.....	1-16
EXHAUST, ORAL-NASAL.....	1-115	WINDSHIELD WIPER, MARINE.....	1-16
EXPANSION.....	1-189	WIPER, WINDOW, PENDULUM.....	1-17
FIRE EXTINGUISHER.....	1-111	WIRE ROPE ASSEMBLY, SINGLE LEG.....	1-90
FLOAT.....	1-189	WORK STATION KIT, ELECTROSTATIC CONTROL.....	1-204
FLUSH.....	1-128	WRENCH KIT.....	1-250
FOOT.....	1-189	WRENCH SET, BOX.....	1-250
GAS INLET, NONMAGNETIC.....	1-189	COMBINATION BOX AND OPEN END.....	1-250
GATE.....	1-189	COMBINATION BOX AND OPEN END BOX ...	1-251
GLOBE.....	1-190	CROWFOOT, RATCHETING.....	1-251
INSTRUMENTATION.....	1-192	OPEN END, FIXED.....	1-251
LIFT CHECK.....	1-192	RATCHET.....	1-251
LINEAR, DIRECTIONAL CONTROL.....	1-192	SOCKET.....	1-254
LIQUID OXYGEN.....	1-193	SOCKET HEAD SCREW SOCKET WRENCH ATTACHMENT.....	1-252
PLUG.....	1-193	WRENCH, ADJUSTABLE.....	1-245
PNEUMATIC INFLATOR.....	1-114	BOX.....	1-245
PNEUMATIC TANK.....	1-193	BOX AND OPEN END COMBINATION.....	1-246
PNEUMATIC TIRE.....	1-21	DRAIN PLUG.....	1-246
REGULATING, FLUID PRESSURE.....	1-193	IMPACT, MANUAL.....	1-246
REGULATING, SYSTEM PRESSURE.....	1-195	IMPACT, PNEUMATIC.....	1-254
REGULATING, TEMPERATURE.....	1-195		
RELIEF, PRESSURE AND TEMPERATURE ...	1-195		
SAFETY RELIEF.....	1-195		
SHUTTLE.....	1-196		

## Section 1 Alphabetical Index

OPEN END .....	1-246
OPEN END BOX .....	1-247
PIPE .....	1-247
PLIER.....	1-247
RATCHET .....	1-248
SOCKET.....	1-248
SPANNER.....	1-248
SPUD CLOSET, INTERNAL, ADJUSTABLE ....	1-249
TAP AND REAMER .....	1-249
TORCH AND REGULATOR .....	1-249
TORQUE .....	1-249
WHEEL STUD NUT, GEARED SOCKET .....	1-250
WYE CONNECTION, FIRE HOSE, VALVED .....	1-111
WYE, QUICK DISCONNECT .....	1-176

# GROUP 20

## SHIP AND MARINE EQUIPMENT

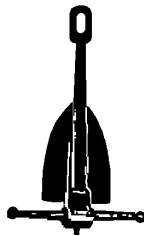
### CLASS 2040

#### MARINE HARDWARE AND HULL ITEMS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### ANCHOR, MARINE, FLUKED

NONFOULING TYPE 30 pound, 30-1/4 inch shank. Two sharp double-swinging 17-1/2 inch flukes with stock located at crown end. With shackle ready for use. Galvanized.



00-287-9702 Bronze and Steel.  
 00-377-8597 Cast Steel or pressed and Forged Steel.

#### CLEAT, ROPE

##### SINGLE BASE

Bronze or Gunmetal.

Steel, Cast, Galvanized.

Base is: 5 inch length by 3-3/4 inch width by 2-3/8 inch height. Closed design form. For size 1-1/4 inch to 1-1/2 inch rope size. NAVSEA Drawing number S1201-860099PC1.

	O/A horn Lg
00-244-1335	8 In.

Base is: 10 inch length by 7-7/8 inch width by 4-3/4 inch height. Closed design form. Used for 3-1/4 to 3-1/2 inch. Rope size.

	O/A horn Lg
00-244-1331	16 In.

#### COVER, VENTILATORY

Round access covers for non-watertight ducts. Quick opening type. Aluminum. NAVSEA Drawings 805-1363775 and 805-1363776.

	Dia	NAVSEA Dwg Piece No.
00-616-5407	6	2, 4
00-616-5410	6	15, 16, 19
00-616-5409	8	2, 4
00-616-5426	8	13, 1
00-616-5408	12	1, 3
00-616-5412	12	13, 1

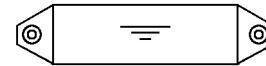
#### EYEGUARD

Rubber, 40 durometer. 2.80 inch by 2.74 inch with varying radii on outside surfaces.

01-158-5089

#### FENDER, BOAT

Air filled Plastic fenders to protect boats and harbor craft, from being damaged when alongside other boats or pier.



	Dia/In.	Lg/In.
00-815-4792	5	24
00-815-4791	8	30

#### FENDER, MARINE

Synthetic Rubber and Nylon cord fenders for ships. Cylindrical shaped. Plastic, unicellular foam filling. NAVSEA Drawing 805-1340571.



	Dia/In.	Lg/In.
00-821-0808	16	36
00-807-4197	24	36
00-128-7982*	32	50

\* Synthetic Rubber and Nylon tire cord shell.

#### GRAPNEL, MARINE

Steel, Zinc Coated. Five prong. Six feet of 1/4 inch chain attached to grapnel by means of a pear-shaped connecting link. A second pear-shaped connecting link attached to other end. A round thimble capable of accommodating a 1-1/2 inch circular rope is fitted to second pear-shaped link.



4 POUND GRAPNEL

# CLASS 2040

	Shank	Spread
00-287-9644	12 In.	7 In.

## 15 POUND GRAPNEL

	Shank	Spread
00-238-9060	19 In.	12 In.

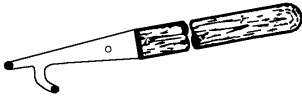
Nonmagnetic material, Zinc coated. Five pronged.

## 4 POUND GRAPNEL

	Shank	Spread
00-287-9643	2 In.	7 In.

## HOOK, BOAT

Bronze boat hook, 7 inch length, furnished with wood handle. Blunt ball point.



Handle Lg/Ft

00-268-9251	8
00-268-9252	12

## LOCK ARM ASSEMBLY

Steel, AMS 5528. With 2.940 inch width by 3.408 inch length by 4 mounting holes. .196 inch diameter, T-shaped, with .875 inch width. Stem, .125 inch thickness.

00-895-7076

## OAR

One piece wood oar made of Ash, hard Maple or Red Elm. Coated with water resisting spar varnish or a varnish type sealer.

Lg/Ft

00-262-4426	8
-------------	---

## PAD ASSEMBLY, LIFTING BRACE

Consists of (10) Steel disks 2.156 inch diameter, .062 inch thickness, bonded to, (9) natural color Urethane pads. 1.625 inch diameter by .250 inch thickness. 2.875 inch overall length assembly. Adhesive bond to withstand 8000 pounds of axial compression load.

01-029-4157

## PADDLE, BOAT

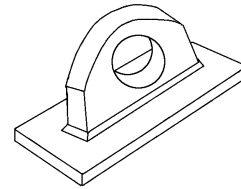
Single laminated wood blade. Painted finish. Without blade tip. Overall dimensions, 6 foot length, 6.812 inch width blade. For use with LCR-L and 26 foot motorized whaleboats.

00-272-2227

## PAD EYE

FORGED STEEL

Pad eye forging seams and pins are to be ground flush with body of pad eye. Bottom side of each foot to be ground flat. GRADE 1023 pad eyes are to be welded in place with a 3/8 inch fillet completely around both feet. Capacity marked on foot. Eye stock diameter 1/2 inch. 4-1/4 inches long by 2-5/8 inches high by 1-3/4 inches wide.



Capacity  
4000 Lb's

00-813-5709

## PLATE, PROBE ASSEMBLY

Consists of a Steel plate 9.70 inch overall diameter, 6.375 inch inside diameter and .500 inch thickness. 6 inserts included.

00-246-5192

## PLUNGER, FUEL RECEIVER

Steel 18-8, passivated. 4.437 inches overall length with .300 inch diameter. Stem is 4.187 inches long. Piston head .535 inch diameter, 160 inch thickness. NAVSEA Drawing 810-2255761PC-17. (For refueling at sea).

00-894-1033

## PLUNGER, PACKING

Used in handle of W.T.Q.A. doors. Phosphor Bronze rod .312 inch diameter and 2.250 inch length. NAVSEA Drawing 805-1400053-6.

01-033-6240

## PORTLIGHT

4.750 inch diameter. Round, plain, Steel frame. Frame opening diameter 4 inches. Frame outside diameter, 5 inches with frosted glass in Steel holder.

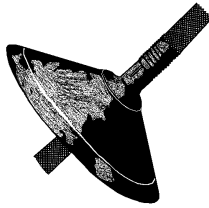
01-386-1441

12 inch diameter. Round, flanged, Aluminum frame. Frame opening diameter, 12.812 inches. Frame outside diameter 17.375 inches with removable hinge pin and .750 inch thick plate glass in holder. Aluminum holder and cover. Glass frame hinged on both sides.

00-753-3977

## RATGUARD, SHIP

A conical shaped disk with a cylindrical sleeve. Made in two halves for ready installation and removal without disturbing mooring lines. Attached to line by lashing. Diameter of lines accommodated given below.



Aluminum

Dia Lines

00-277-4266

5 In.

Steel, Zinc Coated

Dia Lines

00-272-2353

3 In.

00-272-2355

8 In.

## SEA ANCHOR

Hemispherical shaped Nylon body. 15 inch length body, furnished with Nylon bridle and 50 feet of 1/4 inch thick Nylon cord. Used with inflatable boats. NAVSEA Drawing S8225-1298540.

00-368-2880

Nylon body and cord bridle with 12 inch length anchor body. 4 inch diameter opening at apex and 2 inch diameter mouth opening. Provided with 25 foot long mooring line. Intended for use with inflatable life rafts carried by air crewman or stowed in aircraft.

00-273-9147

## SLEEVE, BULKHEAD AND DECK

Used to run wires and pipes through decks and bulkheads on ships. Nominal pipe size listed.

Size/In.

00-273-0684

3/8

00-273-0685

1/2

00-273-0686

3/4

00-273-0687

1

00-273-0688

1-1/4

00-273-0690

2

00-277-5784

2-1/2

00-277-5785

3

00-277-5787

4

## STRAINER, HULL INTAKE

Brass. Size 5-1/4 inch by 8-1/4 inch. Scoop design and wood screw hole included. Weight, 2 pounds.

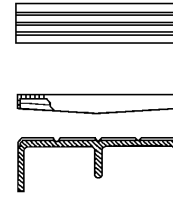
00-045-3575

## TREAD, METALLIC, NONSKID

For use on inclined ladders, weather decks, or leading to weather decks. NAVSEA Drawing 860041.

**NOTE: Aluminum treads shall not be used on Steel stringers above weather decks.**

## GROOVED TREAD



Aluminum Alloy basic material with Aluminum Oxide abrasive additive. Nonmagnetic.

Aluminum or Steel.

Drilled holes.

Lg/In. W/In. H/In.

01-238-0934\* 20 6 1.750

\* 2 coats Silicone Sealer after fabrication, Aluminum Oxide binder colored Black.

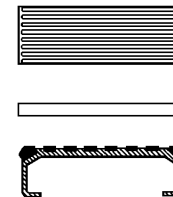
End Bolt Holes

Lg/In. W/In.

01-247-9618 24 4

01-247-9616 24 9

## RIB-STUBBED TREAD



Aluminum or Steel, nonmagnetic.

End Bolt Holes.

Lg/In. W/In. H/In.

01-237-7089\* 20 6 —

01-238-0937 20 9 1.750

00-269-0847 21 6 1.750

01-237-4056† 24 4 1.750

00-269-0848 24 6 1.750

01-238-0933† 24 6 1.750

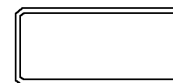
01-237-3208‡ 24 9 —

\* Top drilled countersunk holes

† 2 coats Silicone Sealer after fabrication, Aluminum Oxide binder colored Black

‡ Drilled hole

## OVERLAP THREAD



Galvanized Steel.

Epoxy Resin Abrasive Coated End Bolt Holes.

Lg/In. W/In. H/In.

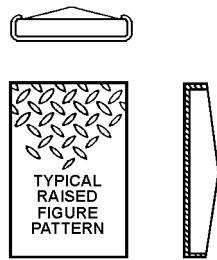
00-753-2863 20 4 1.875

00-753-2865 20 6 1.875

00-753-2867 20 9 1.875

# CLASS 2040

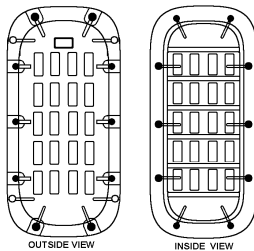
## RAISED PATTERN



## WATERTIGHT CLOSURES and ASSOCIATED REPAIR PARTS

### DOOR, METAL, MARINE STRUCTURAL

#### Standard Individually Dogged Watertight Doors



Galvanized Steel. Without hasp assembly.

18 inch by 36 inch Door Opening. NAVSEA Dwg 805-1400073.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-554-6191	6	RH	4	.075	413
00-554-6190	6	LH	4	.075	414
00-554-3519	19	LH	6	.075	422

26 inch by 45 inch Door Opening. NAVSEA Dwg 805-1400071 and 805-1400072.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-880-6448	10	RH	6	.075	429
00-542-0206	10	LH	6	.075	382
00-542-0203*	13	LH	10	.120	310
00-542-0207	21	RH	8	.075	389
00-554-6193	32	LH	10	.120	398

\* 5/13 Gun Blast PSI.

26 inch by 54 inch Door Opening. NAVSEA Drawing 805-1400070 and 805-1623053.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-554-6205	16	LH	8	.075	358
00-554-6932	22	RH	10	.075	365
00-554-6931	22	LH	10	.075	366

26 inch by 66 inch Door Opening. NAVSEA Drawing 805-1400066.

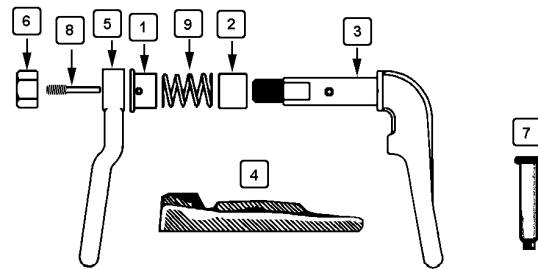
	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-542-0202*	10	RH	8	.075	317
00-542-0249	10	LH	8	.075	318
00-542-0195*	13	RH	10	.120	309
00-554-3525	15	RH	10	.075	301
00-554-3524	15	LH	10	.075	302

\* 5/13 Gun Blast PSI.

30 inch by 66 inch Door Opening. NAVSEA Drawing 805-1626357.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-555-6383	5	RH	8	.075	477
00-555-6384	5	LH	8	.075	478
00-555-6378	13	RH	10	.120	469
00-555-6379	13	LH	10	.120	470

#### Repair Parts for Standard Individually Dogged Watertight Doors.



#### BUSHING DIMENSIONS

Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
3	—	—	1.127	1.377	1.125
4	1.750	0.125	1.127	1.377	1.062

NAVSEA Drawing 805-1400067.

	Repair Parts Piece No.
01-104-1108*	Bushing, Flanged (Bearing, Sleeve) PC 1
00-929-1191	Dog Assembly —
01-435-1756	Dog Wedge, RH PC 4
00-735-4565	Handle, Door PC 5
00-891-3461†	Nut, Plain, Hex PC 6
00-841-1390‡	Pin Shoulder, Headed PC 7
01-104-1052	Plunger Packing (Setscrew) PC 8
00-690-5395	Spring, Helical Compression PC 9

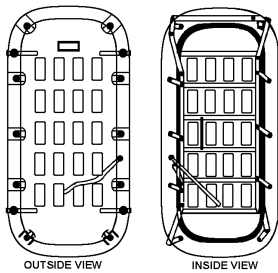
\* FSC 3120.

† FSC 5310 and FSC 5360.

‡ FSC 5315, FSC 5305, NAVSEA Drawing 805-1400054.

**NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes.**

## Standard Quick Acting Watertight Doors, Lever Operates All Dogs at Once.



GALVANIZED STEEL, UNLESS NOTED, WITHOUT HASP ASSEMBLY.

18 inch by 36 inch Door Opening. NAVSEA Drawing 805-1400064.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-3531	30	RH	6	.120	261

26 inch by 45 inch Door Opening. NAVSEA Drawing 805-1400061 and 805-1400062.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-3523	10	LH	6	.075	230
00-554-3526	20	RH	8	.090	237

26 inch by 54 inch Door Opening. NAVSEA Drawing 805-1400059 and 805-1400060.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-6211	15	RH	8	.090	197
00-554-6203	15	LH	8	.090	198
00-554-6202	30	RH	10	.120	213
00-554-6210	30	LH	10	.120	214

26 inch by 57 inch Door Opening. NAVSEA Drawing 805-1400057 and 805-1400058.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-542-0205	5	RH	8	.075	149
00-554-6214	12.5	RH	10	.075	165

26 inch by 66 inch Door Opening. NAVSEA Drawing 805-1400050, 805-1400056, and 805-1400065.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-914-3690*	2	RH	3	.075	—
00-912-5778*	10	LH	8	.075	133
00-542-0200	10	RH	8	.075	—
00-542-0201	10	LH	8	.075	134
00-554-3528	10	RH	8	.075	181
00-554-3527	10	LH	8	.075	182
00-542-0209†	13	RH	10	.120	117
00-542-0198†	13	LH	10	.120	118
00-912-6748*	15	LH	10	.075	—
00-554-6216	15	RH	10	.075	101
00-554-6215	15	LH	10	.075	102

Corrosion Resisting Steel.

\* Painted Steel

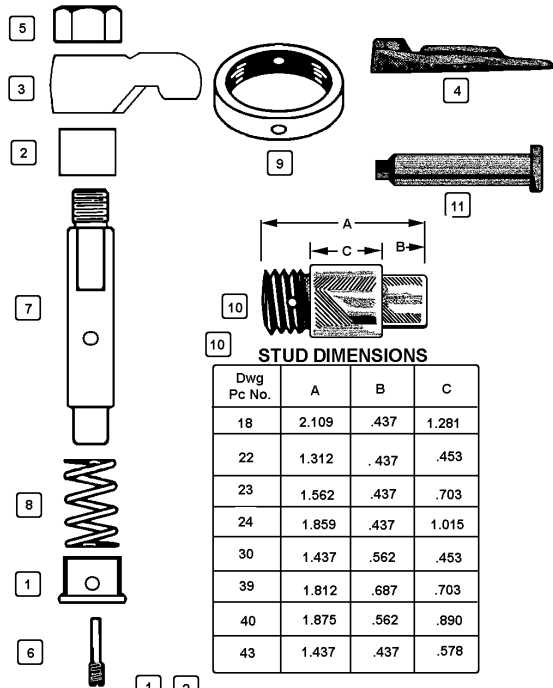
† 5/13 Gun Blast PSI.

30 inch by 66 inch Door Opening. NAVSEA Drawing 805-1626433 and 805-1626510.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-555-6382	5	RH	8	.075	517
00-555-6381	5	LH	8	.075	518
00-912-6172*	13	LH	10	.120	—
00-555-6386	13	RH	10	.120	501
00-555-6385	13	LH	10	.120	502

\* Painted Steel.

## Repair Parts for Standard Quick Acting Watertight and Airtight Doors.



### STUD DIMENSIONS

Dwg Pc No.	A	B	C
18	2.109	.437	1.281
22	1.312	.437	.453
23	1.562	.437	.703
24	1.859	.437	1.015
30	1.437	.562	.453
39	1.812	.687	.703
40	1.875	.562	.890
43	1.437	.437	.578

### BUSHING DIMENSIONS

Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
4	1.625	0.125	1.002	1.252	1.062
5*	1.625	0.125	1.002	1.252	1.125
5**	—	—	1.002	1.252	1.125
15	—	—	0.752	0.935	0.375
16	—	—	0.752	0.938	0.500
17	—	—	0.752	0.938	0.625
19	—	—	1.002	1.252	1.812

\* NAVSHIPS DWG 805-1400053

\*\* NAVSHIPS DWG 805-1400051

## Repair Parts for Standard Quick Acting Watertight Doors.

NAVSEA Drawing 805-1400051.

	Repair Parts Piece No.
01-134-8784*	Bushing, Flanged (Bearing Sleeve) PC 1
01-109-5518*	Bushing, Plain (Bearing Sleeve) PC 2
01-108-4530*	Bushing, Plain (Bearing Sleeve) PC 2
00-770-8374	Dog, Watertight Door PC 3
01-435-1754	Dog Wedge, RH PC 4

# CLASS 2040

		Repair Parts Piece No.
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
01-097-7966†	Nut, Plain, Hex, CRES	PC 5
01-045-9724	Plunger, Packing (Pin, Shoulder)	PC 6
01-103-8804	Setscrew, Dog Point	PC 6
00-770-8373	Spindle, Dog, 5-29/32 in. L	PC 7
00-802-1859	Spring, Helical, Comp.	PC 8
* FSC 3120, FSC 5360, FSC 5315, FSC 5305.		
† FSC 5310.		

**NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes.**

NAVSEA Drawing 805-1400052.

		Repair Parts Piece No.
01-106-6754*	Bushing, Plain	PC 2
01-104-4965*	Bushing, Plain (Bearing Sleeve)	PC 2
01-104-4966*	Bushing, Plain (Bearing Sleeve)	PC 2
00-735-4548†	Collar (Nut)	PC 9
* FSC 5310.		
† FSC 3120.		

PIN, SHOULDER, HEADLESS

NAVSEA Drawing 805-1400052.

		Repair Parts Piece No.
00-735-4573*	Stud, Connecting Rod	PC 10
00-735-4567*	Stud, Conn Rod/Side Dog Lever	PC 10
00-735-4575*	Stud, Side Dog Lever	PC 10
00-735-4571*	Stud, Side Dog Lever	PC 10
00-735-4569*	Stud, Toggle/Hand Lever	PC 10
00-735-4578*	Stud, Toggle Link/Hand Lever	PC 10
00-735-4568*	Stud, Toggle to Dog	PC 10
00-735-4572*	Stud, Top/Bottom, Dog Lever	PC 10
* FSC 5315.		

NAVSEA Drawing 805-1400053.

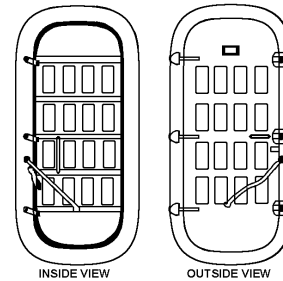
		Repair Parts Piece No.
01-103-8882*	Bushing, Hand, Lever (Bearing Sleeve)	PC 2
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
LL-HDF-M969‡	Nut, Plain, Hex, CRES	PC 5
01-033-6240	Plunger, Packing	PC 6
00-770-8385	Spindle, Dog 7 in. Lg	PC 7
* FSC 3120.		
† FSC 5310.		
‡ FSC 0099.		

NAVSEA Drawing 805-1400054.

		Repair Parts Piece No.
00-841-1390*	Pin, Hinge (Pin, Shoulder, Headed)	PC 11
* FSC 5315.		

## Standard Quick Acting Airtight Doors

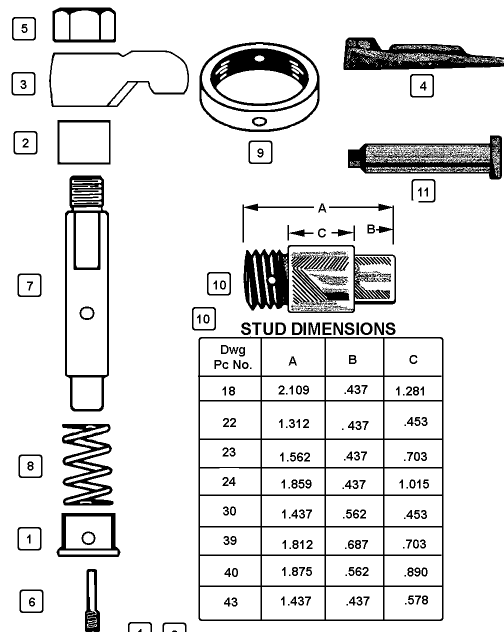
GALVANIZED STEEL, WITHOUT HASP ASSEMBLY. NAVSEA Drawing 805-1400074.



26 inch by 66 inch Door Opening.

	PSI	Door Swing	Thickness In.(s)	Assy Number
00-542-0192	2	RH	.075	445
00-542-0193	2	LH	.075	446

## Repair Parts for Standard Quick Acting Watertight and Airtight Doors



**STUD DIMENSIONS**

Dwg Pc No.	A	B	C
18	2.109	.437	1.281
22	1.312	.437	.453
23	1.562	.437	.703
24	1.859	.437	1.015
30	1.437	.562	.453
39	1.812	.687	.703
40	1.875	.562	.890
43	1.437	.437	.578

**BUSHING DIMENSIONS**

Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
4	1.625	0.125	1.002	1.252	1.062
5*	1.625	0.125	1.002	1.252	1.125
5**	—	—	1.002	1.252	1.125
15	—	—	0.752	0.935	0.375
16	—	—	0.752	0.938	0.500
17	—	—	0.752	0.938	0.625
19	—	—	1.002	1.252	1.812

\* NAVSHIPS DWG 805-1400053

\*\* NAVSHIPS DWG 805-1400051

NAVSEA Drawing 805-1400051.

		Repair Parts Piece No.
01-134-8784*	Bushing, Flanged (Bearing Sleeve)	PC 1
01-109-5518*	Bushing, Plain (Bearing Sleeve)	PC 2
01-108-4530*	Bushing, Plain (Bearing Sleeve)	PC 2

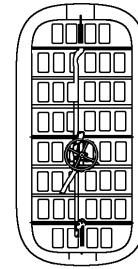


Part No.	Description	Repair Parts Piece No.
00-770-8374	Dog, Watertight Door	PC 3
01-435-1754	Dog Wedge, RH	PC 4
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
01-097-7966†	Nut, Plain, Hex, CRES	PC 5
01-045-9724	Plunger, Packing (Pin, Shoulder)	PC 6
01-103-8804	Setscrew, Dog Point	PC 6
00-770-8373	Spindle, Dog, 5-29/32 in. Lg	PC 7
00-735-4549	Spindle, Dog, 6-19/32 in. Lg	PC 7
00-802-1859	Spring, Helical, Comp.	PC 8
* FSC 3120, FSC 5360, FSC 5315, FSC 5305.		
† FSC 5310.		

Part No.	Door Swing	Panel Thickness	NAVSHIP Dwg No.
00-542-0219	LH	.075	438
NAVSEA Drawing 805-1400054.			
NAVSEA Piece No.			
00-841-1390	Pin, Hinge		PC 6

### Standard, Quick Acting, Sliding Dog, Airtight and Watertight Doors.

NAVSEA Drawing S1602-H-3199767.



**NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes.**

NAVSEA Drawing 805-1400052.

Part No.	Description	Repair Parts Piece No.
01-104-4965	Bushing, Plain (Bearing Sleeve)	PC 2
01-104-4966	Bushing, Plain (Bearing Sleeve)	PC 2
00-735-4548*	Collar (Nut, Plain, Round)	PC 9
* FSC 5310, 3120		

### Repair Parts for Standard Quick Acting Sliding Dog Airtight and Watertight Doors

PIN, SHOULDER, HEADLESS

Part No.	Description	Repair Parts Piece No.
00-735-4575*	Stud, Side Dog Lever	PC 10
00-735-4578*	Stud, Toggle Link/Hand Lever	PC 10
* FSC 5315.		

NAVSEA Dwg S1602-H-3175554.

Part No.	Description	Repair Parts Piece No.
01-084-7948	Bracket (Dog, Door Closer)	PC 1
00-735-4562	Bracket, Slide Plate	PC 2
01-089-2601	Bushing, Conn Rod (Sleeve)	PC 3
01-089-3772	Bushing, Conn Rod (Sleeve)	PC 3
01-089-2603	Bushing, Spindle (Sleeve)	PC 4
01-089-3773	Bushing, Spindle (Sleeve)	PC 4
01-117-0624*	Cap, Operating Crank, RH	PC 5
01-093-1552*	Dog, Slider Bar-Side, 18 Door	PC 7
01-084-7926*	Dog, Slider Bar-Side, 24 Door	PC 7
01-084-7927*	Dog, Slider Bar-Side, 26 Door	PC 7
01-084-7936*	Dog, Slider Bar-Side, 26 Door (Sp)	PC 7
01-084-7928*	Dog, Slider Bar-Side, 30 Door	PC 7
01-084-7929*	Dog, Slider Bar-Side, 36 Door	PC 7
01-084-7930*	Dog, Slider Bar-Side, 42 Door (Sp)	PC 7
01-084-7923*	Dog, Slider Bar-Side, 54 Door	PC 7
01-084-7924*	Dog, Slider Bar-Side, 54 Door (Sp)	PC 7
01-084-7931*	Dog, Slider Bar-Side, RH 6	PC 8
01-084-7932*	Dog, Slider Bar-End, LH 6	PC 8
01-085-8964*	Dog, Slider Bar-End, RH 8	PC 8
01-084-7933*	Dog, Slider Bar-End, LH 8	PC 8
01-084-7935*	Dog, Slider Bar-End, 10	PC 8
01-084-7934*	Dog, Slider Bar-End, 15	PC 8

NAVSEA Drawing 805-1400053.

Part No.	Description	Repair Parts Piece No.
01-103-8882*	Bushing, Hand Lever	PC 1
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
LL-HDF-M969‡	Nut, Plain, Hex, CRES	PC 5
01-033-6240	Plunger, Packing	PC 6
00-770-8385	Spindle, Dog	PC 7
* FSC 3120.		
† FSC 5310.		
‡ FSC 0099.		

NAVSEA Drawing 805-1400054.

Part No.	Description	Repair Parts Piece No.
00-841-1390*	Pin, Hinge	PC 11
* FSC 5315.		

### Standard Non-Tight Doors

GALVANIZED STEEL, WITHOUT HASP ASSEMBLY. NAVSEA Drawing 805-140007.

26 inch by 66 inch Door Opening.

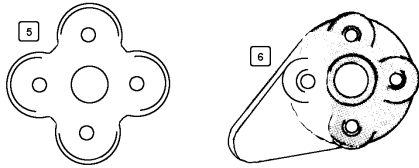
Part No.	Door Swing	Panel Thickness	NAVSHIP Dwg No.
00-542-0191	RH	.075	437

Part No.	Description	Repair Parts Piece No.
01-123-3007†	Pin, Shouldered, Headless	PC 10
01-123-8675†	Bolt, Shouldered	PC 11
00-690-5373	Spring, Compression	PC 12
01-083-6480‡	Washer, Conn. Rod	PC 13
01-130-9846‡	Washer, Conn. Rod	PC 13
* FSC 5340		
† FSC 5315 FSC 5360		
‡ FSC 5310		

# CLASS 2040

**BUSHING DIMENSIONS**

Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
24	1.312	0.125	0.753	0.938	1.500
35	—	—	0.634	0.752	0.375
52	—	—	0.753	0.938	0.875
70	1.625	0.125	1.002	1.252	1.500



**7 DOG, SLIDER BAR-SIDE**

* Dwg Pc No.	Door Width In.	Dog Slider Bar-Side Lg In.
1	18	7.875
2	54	23.937
3	54 Special	25.562
4	22	9.875
5	24	10.875
6	26	12.000
7	30	13.937
8	36	16.937
9	42	19.937
10	42 Special	19.562
33	26 Special	11.625

\*All Pc Nos. included Dog End Pc 17 Assembled to Dog, Slider Bar-Side.

**8 DOG, SLIDER BAR-END Curved End**

* Dwg Pc No.	Type	C Spindle To Open	E
11	RH	6	5.125
12	LH	6	5.125
13	RH	8	7.125
14	LH	8	7.125

**8 DOG, SLIDER BAR-END Straight End**

* Dwg Pc No.	End Dog Span	E
15	15	14.062
16	10	9.000

\* All Pc Nos. included Dog End Pc 17 Assembled to Dog Slider Bar-Side.

**13 WASHER DIMENSIONS**

Dwg Pc No.	I. D.	O. D.	Thk
36	0.656	1.000	0.062
111	0.656	1.750	0.062
112	0.656	1.500	0.125

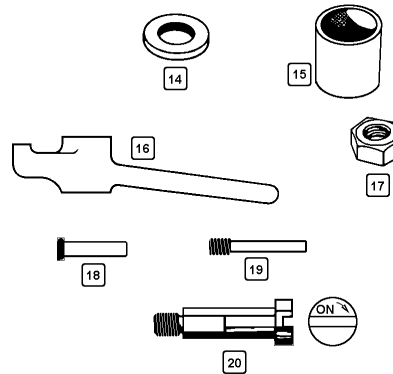
## HATCH, MARINE

Standard Individually Dogged Flush Hatches. Watertight.



FLUSH DESIGN. Operated from below. Without Scuttle.

Repair Parts for Standard Individually Dogged Flush Watertight Hatches



NAVSEA Drawing 805-1624105

- |              |                                 | Repair Parts Piece No. |
|--------------|---------------------------------|------------------------|
| 01-108-4534* | Bearing, Plain                  | PC 14                  |
| 01-108-4531* | Bushing, Plain (Bearing Sleeve) | PC15                   |
| 01-093-1551  | Dog, Angle                      | PC 16                  |
| 00-735-4559  | Dog, Straight                   | —                      |
| 00-764-6610  | Nut, Plain, Hexagon             | PC 17                  |
| 00-189-7383† | Pin, Hinge (Metal Bar)          | PC 18                  |
| 01-094-2863  | Plunger, Packing (Screw)        | PC 19                  |
| 00-735-4558  | Spindle, Dog                    | PC 20                  |
- \* FSC 3120, FSC 5310, FSC 5340, FSC 5305.  
 † NAVSEA Drawing 805-1624106, FSC 9510, Mfg from metal bar.

## Standard Individually Dogged Raised Watertight Hatches

RAISED DESIGN. Operated from above. With hasp assembly., 3/16 inch thickness 12 inch height coaming, except as noted.

WITH SCUTTLE



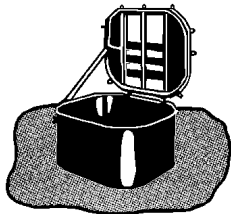
30 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1624092.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6923	30	—	1

30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624087.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-4059	30	Short Side	2

WITHOUT SCUTTLE



24 inch by 24 inch Hatch Opening. NAVSEA Drawing 805-1624090.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6194	15	—	1

24 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1624144.

	PSI	Hinge Location	NAVSEA Assy No.
00-540-5005	15	Long Side	5
00-540-5004	15	Short Side	6

30 inch 30 inch Hatch Opening. NAVSEA Drawing 805-1624093.

	PSI	Hinge Location	NAVSEA Assy No.
00-542-0211*	5	—	1
00-554-6941	5	—	1
00-554-6942	15	—	3

\* NAVSEA Drawing 805-1624091

30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624070.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6938*	5	Short Side	10
00-554-6903	30	Long Side	1

\* 7 inch High Coaming

30 inch by 48 inch Hatch Opening. NAVSEA Drawing 805-1624073.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-4060	5	Short Side	2
00-542-0213	15	Short Side	6

30 inch by 60 inch Hatch Opening. NAVSEA Drawing 805-1624075.

	PSI	Hinge Location	NAVSEA Assy No.
00-542-0214	5	Short Side	2
00-554-4067	15	Short Side	6

36 inch by 42 inch Hatch Opening. NAVSEA Drawing 805-1624077.

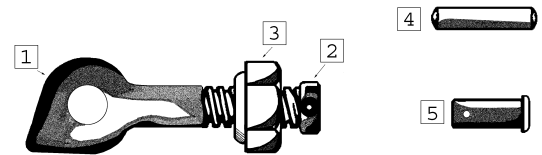
	PSI	Hinge Location	NAVSEA Assy No.
00-554-4039*	15	Short Side	6

\* 7 inch High Coaming

48 inch by 48 inch Hatch Opening. NAVSEA Drawing 805-1624082.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6198	15	—	3

### Repair Parts for Standard Individually Dogged, Raised Watertight Hatches



NAVSEA Drawing 805-1624071.

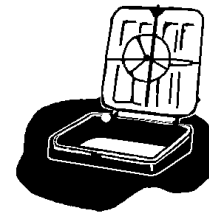
		Repair Parts Piece No.
00-770-8390	Bolt, Dog	PC 1
00-701-2800*	Collar, Shaft	PC 2
00-772-9259	Nut, Dog	PC 3
00-802-2938†	Pin, Dog, Pad	PC 4
00-753-3875†	Pin, Hinge	PC 5

\* FSC 3040.

† FSC 5315.

### Standard Quick Acting Hatches, Watertight

FLUSH DESIGN. Operated from below. Steel. Without hasp assembly.

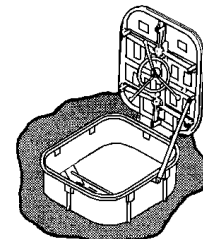


30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624135.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6887*	15	Long Side	3

\* NAVSEA Drawing 805-1624136

RAISED DESIGN. Operated from above and below. Steel. With coaming 3/16 inch thick by 12 inch high With hasp assembly.



24 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1645097.

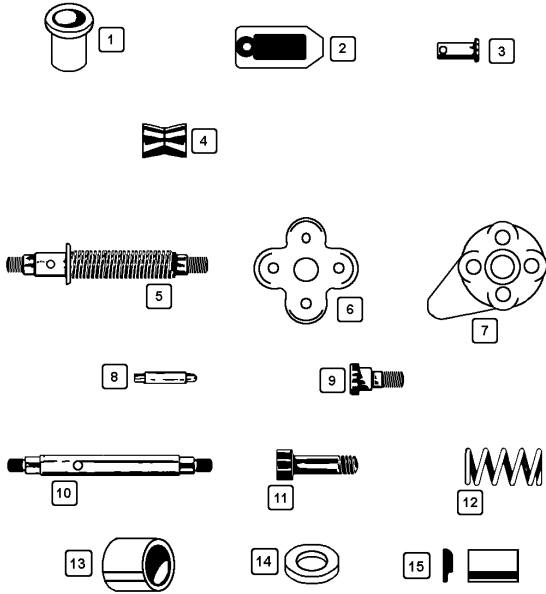
	PSI	Hinge Location	NAVSEA Assy No.
01-306-7834	5	Long Side	1

30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624120.

# CLASS 2040

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6925	5	Long Side	3
00-554-6924	5	Short Side	1
00-554-6904	15	Short Side	1

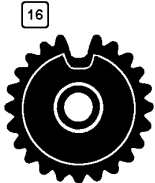
## Repair Parts for Standard Quick Acting Watertight Hatches



1 13

BUSHING DIMENSIONS

Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
16	1.312	0.125	0.752	1.002	1.000
49	—	—	0.634	0.752	0.375
50	—	—	0.753	0.938	0.875
51	1.625	0.125	1.002	1.252	0.750
52	1.750	0.093	1.252	1.503	1.000
53	1.312	0.125	0.753	0.938	1.500
54	1.625	0.125	1.002	1.252	1.500



NAVSEA Drawing 805-1624129.

	Repair Parts Piece No.
01-097-8113*	Bushing, Dog (Bearing Sleeve) PC 1
00-735-4563	Rest, Dog PC 2
00-823-8634†	Pin, Clevis PC 3
00-735-4562 * FSC 3120. † FSC 5315.	Slide Plate, Dog PC 4

NAVSEA Drawing 805-1624130.

	Repair Parts Piece No.
00-770-8382	Cap, Operating Crank PC 6
01-123-3007	Pin, Shouldered, Headless PC 8
01-123-8675	Bolt, Shouldered PC 9
00-753-4219*	Spindle PC 11
00-690-5373 * FSC 5306, FSC 5360, FSC 5315.	Spring, Dog Rest PC 12

NAVSEA Drawing 805-1624131.

	Repair Parts Piece No.
00-957-7910*	Bushing, Flanged PC 1
01-089-2602*	Bushing, Flanged PC 1
01-089-2603*	Bushing, Flanged PC 1
01-089-3773*	Bushing, Flanged PC 1
01-089-2601*	Bushing, Plain PC 13
01-089-3772†	Bushing, Plain PC 13
01-083-6480†	Washer, Flat PC 14
* FSC 3120 † FSC 5310	

NAVSEA Drawing 805-1624133.

	Repair Parts Piece No.
00-735-4534* * FSC 3020.	Gear, Worm Wheel PC 16

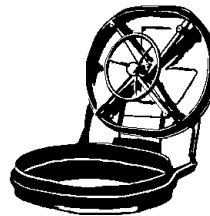
NAVSEA Drawing 805-1624134.

	Repair Parts Piece No.
00-753-3875* * FSC 5315	Pin, Hinge PC 3

## Standard Quick Acting Spring Balanced Hatches, Watertight.

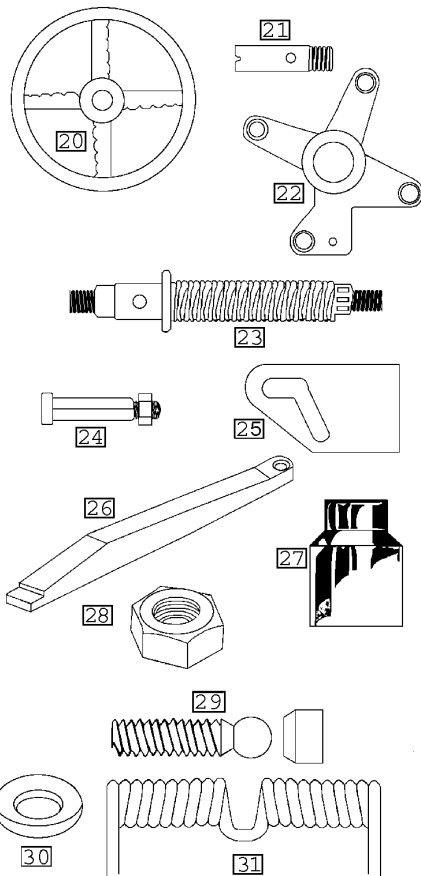
RAISED DESIGN. Operated from above and below. Steel. Oval or rectangular shaped, with coaming 3/16 inch thickness by 12 inch height.

24 inch by 30 inch Oval Hatch Opening.



	PSI	Hinge Location	NAVSEA DWG 805-
00-542-0248	5	—	1626021

## Repair Parts for Standard Quick Acting Spring Balanced Watertight Hatches.



NAVSEA Drawing 805-1626022.

		Repair Parts Piece No.
00-802-1838	Handwheel, Lower	PC 20
00-803-2326	Handwheel, Upper	PC 20
00-802-1858*	Pin, Spider	PC 21
00-770-8396	Spider	PC 22
* FSC 5315.		

NAVSEA Drawing 805-1626023.

		Repair Parts Piece No.
00-753-4217*	Bolt, Dog	PC 24
00-735-4550	Cam	PC 25
00-770-8391	Dog	PC 26
00-735-4551	Housing	PC 27
LL-HDF-M628†	Nut, Plain, Hex	PC 28
01-106-2805	Screw Assy. Adjusting	PC 29
01-168-8226	Washer, Flat	PC 30
* FSC 5306 and FSC 5310.		
† FSC 0099.		

NAVSEA Drawing 805-1625831.

Repair Parts  
Piece No.

00-770-8378\* Spring, Helical, Torsion Type A4  
\* FSC 5360

PC 31

## SCUTTLE, MARINE

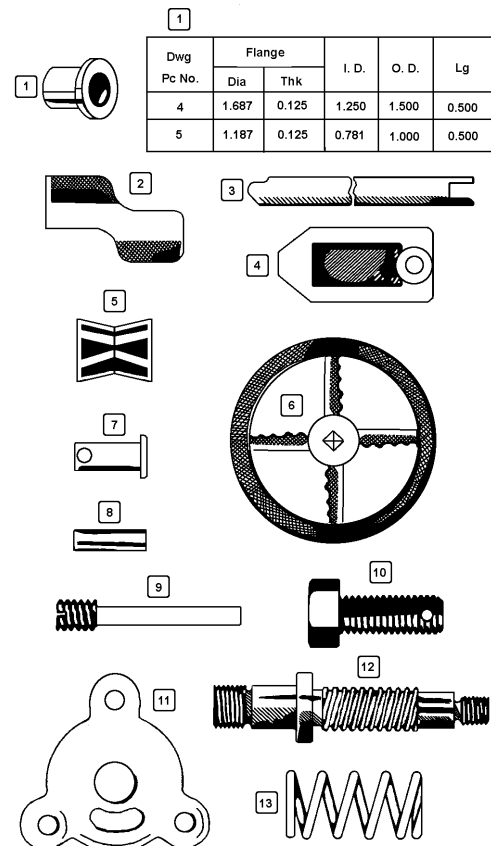
Standard Quick Acting Scuttles, Watertight



FLUSH DESIGN. Operated by wrench from above and by handwheel from below. With Steel cover plate.

	PSI	OD	Dogs	NAVSEA Dwg 805-
00-554-6911	17	21 in.	3	1623056
00-554-6910	25	25 in.	4	1623057
00-725-4515	40	18 in.	3	1623055

## Repair Parts for Standard Quick Acting, Flush Watertight Scuttles.



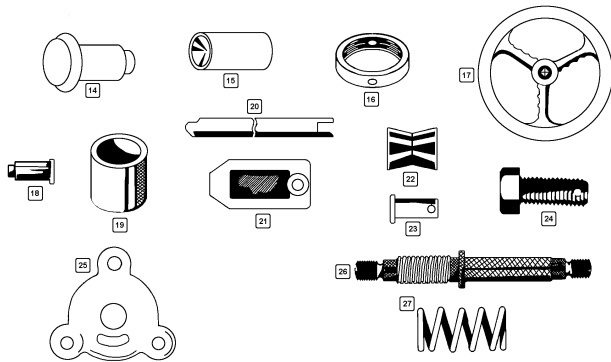
Dwg Pc No.	Flange		I. D.	O. D.	Lg
	Dia	Thk			
4	1.687	0.125	1.250	1.500	0.500
5	1.187	0.125	0.781	1.000	0.500

NAVSEA Drawing 805-1623055.

# CLASS 2040

		Repair Parts Piece No.	PSI	OD	Assembly	Repair Parts Piece No.
00-122-7037	Bushing, Flanged (Bearing, Sleeve)	PC 1	00-554-6909	16	21	B
01-106-6753	Bushing, Flanged (Bearing, Sleeve)	PC 1	00-753-3751	30	21	B
			00-725-4514	35	18	B
00-735-4564	Cam, Dog	PC 2	NAVSEA Drawing 805-1623943.			
00-770-8394	Dog, 8-7/8 in. Lg	PC 3				
00-771-2302	Dog, 10-7/16 in. Lg	PC 3				
00-735-4563	Dog Rest	PC 4	01-140-9950*	Brace Pin, Headed		PC 14
			01-142-3595*	Brace Pin, Headless		PC 15
00-802-1835	Handwheel, 10 in. Dia	PC 6	01-093-1079	Collar, Brace Pin 11/16		PC 16
00-802-1833	Handwheel, 13 in. Dia	PC 6	01-082-2171*	Collar, Brace Pin 9/16		PC 16
00-823-8634*	Pin, Clevis	PC 7	00-802-1835	Handwheel, Lower, 10		PC 17
01-176-5990*	Pin, Hinge	PC 8	00-802-1833	Handwheel, Lower, 13		PC 17
			00-802-1836	Handwheel, Upper, 10		PC 17
01-131-6720	Screw, Adjusting	PC 10	00-802-1834	Handwheel, Upper, 13		PC 17
00-770-8392	Spindle	PC 12	00-802-1837*	Pin, Hinge		PC 18
			* FSC 5315.			
00-690-5373†	Spring, Dog Rest	PC 13	NAVSEA Drawing 805-1623944.			
* FSC 5315.						
† FSC 5360, FSC 5306, FSC 3120.						

## Repair Parts for Standard Quick Acting Raised Watertight Scuttles



Standard Quick Acting, Raised Watertight Scuttles.



Operated by handwheel from above and below. With Steel cover plate and coaming 3/16 inch thick. NAVSEA Drawing 805-1623944, Rev D.

Coaming Height 1-1/2 inch to 2 inch.

	PSI	OD	Assembly
00-725-4519	27	25	A
00-725-4513	30	21	A
00-801-1048	30	21	A
00-727-5458	35	18	A

Coaming Height 6 inch.

		Repair Parts Piece No.
01-097-8113	Bushing	PC 19
00-770-8394	Dog, 8-7/8	PC 20
00-771-2302	Dog, 10-7/16	PC 20
00-770-8379	Dog, 12-1/2	PC 20
00-735-4563	Dog Rest	PC 21
00-735-4562	Dog Rest Slide Plate	PC 22
00-823-8634*	Pin, Clevis	PC 23
01-103-7896†	Screw, Adjusting	PC 24
00-770-8393	Spider, 3 Hole	PC 25
00-770-8380	Spindle (Shaft, Shouldered)	PC 26
00-690-5373‡	Spring, Dog Rest	PC 27
* FSC 5315.		
† FSC 5305 and FSC 3120.		
‡ FSC 5360.		

## GASKETS

FOR WATERTIGHT CLOSURES REFER TO FSC 5330, RUBBER STRIP. SELECT APPROPRIATE SIZE AS REQUIRED.

## CLASS 2090 MISCELLANEOUS SHIP AND MARINE EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### ARM ASSEMBLY, HEATED

Component of "Landing Craft, Utility"; end item 1905-01-009-1056.

01-064-2627

### ARM, WINDSHIELD WIPER

BLACK COLOR PAINT. Non-adjustable, 20 inch length arm. Universal mounting position with collar type drive end mounting.

01-120-7303

### BAG, DOCUMENT SINKING

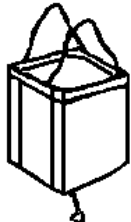
Cylindrical, White cotton, canvas bag with drawstring closure and slide lock at top. 44 inch height. Reinforced bottom with sewn in 18 inch diameter concrete weight. NAVSEA Drawing 805-1641047 PC 1T06.



00-059-6377

### BAG, SHIP TO SHIP TRANSFER

Natural color cotton, canvas bag reinforced with cotton webbing. Cotton webbing slings and becket. 26 inch length by 39 inch height by 26 inch width. NAVSEA Drawing S1802-607397.



00-351-2299

### BLADE, WINDSHIELD WIPER

STAINLESS STEEL holder with rubber insert, mounted with cotter pin. Insert is non-replaceable. Wiper arm not included.

NAVSEA Drawing 1203-1022034.

	Lg/In.
00-262-4417	8

RIGID HOLDER with rubber insert is non-replaceable. Wiper arm adapter not included. Overall length given in inches, mounting method (Mtg M) listed.

	Lg	Mtg M
01-139-4961	13	Unk
00-809-4063	12	Hole
01-168-6218	16	Screw
00-701-4378	16	Unk
00-540-6460	18	Saddle
00-549-5679	18	Hole
00-540-6654	20	Saddle
01-168-4430	22	Screw

### BOARD, ABSENTEE, OFFICER'S

Use colored tabs to Show the Aboard or Ashore status of officers. NAVSEA Drawing S3209-964111.

20 name capacity.

	H/In.	W/In.
00-269-1100	10.250	7.375

40 name capacity.

	H/In.	W/In.
00-269-1098	17.750	7.375

### CABINET, KEY

GLASS DOOR. Steel key cabinet. Red color, wall mounted. Glass door with camlock. Used for shipboard damage control party emergency key source. Approximate dimensions 6.625 inch height by 5.750 inch width by 2 inch depth.



Key Cap.  
1

00-904-6699

### CHAIR, AVIATOR'S READY ROOM

Steel and Aluminum; Gray enamel finish. Covered with Cordovan upholstery. Single seat, adjustable back, and locker under seat. Accessories include 1 plotting board and 1 ash receptacle. 40.25 inch height by 27 inch width. NAVSEA Drawing 805-1646563.



00-368-4787

### CHAIR, BARBER

Integral footrest with tilting adjustment. Upholstered. For shipboard use. Height adjusts from 44 inches to 51.5 inches. 25.875 inch width by 49.75 inch depth. NAVSEA Drawing 804-4661744.

00-822-2304

### CHAIR, BOATSWAINS

Seat is 24 inch length by 8 inch width by 1.5 inch thick. Link is 5 inch length by 3.750 inch width by .625 inch diameter. Manila rope 2.5 inch circumference. Overall 28.25 inches high. .

00-287-3613

### CHAIR, PEDESTAL SHIPBOARD BRIDGE WING

Nonmagnetic frame covered in light gray enamel. Foam rubber upholstery filler with a Cordovan artificial leather covering. Enameled light gray steel pedestal. Includes chair cover. Seat is 21 inch width by 18 inch depth by 17 inch height from floor. Overall dimensions, 39 inch height by 24.5 inch width by 29.5 inch depth. For shipboard bridge C.O. or flag officers use. NAVSEA Drawing S3306-532423.



00-368-4788

# CLASS 2090

Artificial leather upholstered seat, back rest, and arms, Orange color. Aluminum alloy pedestal, Orange color. Stationary seat, pivoting arms fold flat. 4 inch horizontal adjustment range. Seat height minimum 19.375 and maximum 25.75 inch from floor. 15.75 inch width by 17 inch depth. Equipped with safety belt.

00-814-1101

## CHAIR, PEDESTAL WATCHSTANDER'S

For use by watchstanders. Material in accordance with SPCC HX quality control.

01-173-8665

## CHAIR, STRAIGHT

OFFICE USE. Anodized Aluminum alloy natural color frame. Cellulose back padding, rubber arm padding, sponge rubber seat padding. Fire resistant artificial leather upholstery. Four legs and glides. For use in office areas.

33 inch height by 19 inch width by 17 inch depth. With arms.



Upholstery  
Color  
Blue

00-290-8392

Without arms. 33 inch height by 17 inch width by 16 inch depth.



LOUNGE AREA. Natural frame with arms. Artificial leather over foam rubber upholstery padding. Four legs and glides, reversible back and seat. Overall 38 inch height, seat 24.5 inch depth by 23 inch width. Intended for use in shipboard lounge areas. NAVSEA Drawing 805-921937.



Upholstery  
Color  
Blue

00-559-4659

## CONTROLLER, WINDOW HEATER

Hi-Shock resistant. 440 VAC 10 AMPS. For 1/2 inch glass and thicker. Controller monitors the window temperature, by detecting the change in resistance of the sensor controller. Opens circuit when the temperature at the sensor reaches 85 to 95 degrees Fahrenheit and closes the circuit at a minimum of 70 degrees Fahrenheit. Spare sensor is included. Mounting type listed below.

Mtg.Type

00-475-0142 Remote  
00-612-1071 Surface

## COT, FOLDING

Aluminum frame; canvas cover. 77.5 inch length by 27 inch width. NAVSEA Drawing S3306-553320.

00-369-4567

## DESK, FLAT TOP

Aluminum alloy, Gray enamel semi-gloss finish. Single pedestal with two drawers. Drawer with lock over knee space. Composition top and adjustable legs. 30.5 inch height by 39.75 inch width by 30 inch depth. NAVSEA Drawing S3209-631136.

Pedestal

00-267-1994 LH  
00-267-1995 RH

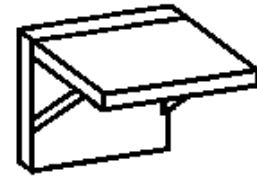
Aluminum alloy, Gray enamel finish. Right and left sliding shelves. Four left side drawers. Two right side drawers. One top center drawer. Composition top and adjustable legs. 30.5 inch height by 54 inch width by 30 inch depth. NAVSEA Drawing S3209-633117.

00-355-4843

## DESK, LOG

Aluminum alloy, light Gray semi-gloss enamel finish. Bulkhead mounted. For use in shipboard working areas. Writing surface dimensions given below.

DROP LEAF TYPE. Linoleum top. 24.25 inch width by 18 inch depth. NAVSEA Drawing S3209-866181.



00-355-4844

DRAWER TYPE. High pressure plastic top. 30.25 inch width by 27.75 inch depth. NAVSEA Drawing S3209-633953.



00-355-4845

## FILING CABINET

LETTER SIZE; FIVE DRAWERS.

Gray enamel finish. One piece construction.

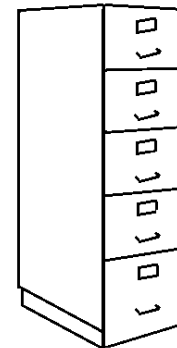
Flush type base. Casters and bulkhead clip are not included. Approximately 60 inch height by 28 inch depth.

STEEL CONSTRUCTION. Includes integral combination lock with dial on top. Combination changed by key. Intended for use in storing classified documents.

W/In.

00-782-3038 18.5

ALUMINUM CONSTRUCTION. Combination lock not included. Intended for shipboard use in office spaces.



W/In.

00-782-3040 15  
00-782-3042 18

COMBINATION; SIX DRAWERS.

Gray enamel finish. One piece construction. Flush type base. Casters and bulkhead clip are not included. Approximately 60 inch height by 28 inch depth.



# CLASS 2090

ALUMINUM CONSTRUCTION. Designed to accommodate card size conversion adapter (not included) for storing 3 by 5 inch cards. Card compartment quantity (Cd Qty) is as indicated below.

	W/In.	Card Qty
00-782-3039	15	6
00-782-3041	18	3

## HEAT SHIELD ASSEMBLY

Stainless Steel. For use on Cornell-Carr models 53620, 53619, 53618, and 53617.

00-549-5678

## LADDER, JACOB'S

WOODEN RUNGS. Fabric side material. Rung spacing 14 inch Lanyard not included.



	Lg/Ft	W/In.
00-242-2511	15	15
00-242-2512	20	15
01-071-4961	30	19

PLASTIC RUNGS. Fabric side material. Rung spacing 13 inch. Bottom lanyard 10 feet long. NAVSEA Drawing 804-5000900.

	Lg/Ft	W/In.
00-753-3911	10	18.5
00-753-3912	15	18.5
00-753-3913	20	18.5
00-753-3914	25	18.5

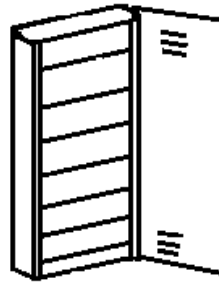
## LOCKER, CLOTHING

ALUMINUM AND STEEL ALLOYS. Type D, two lockers wide. Storage space in each 2.333 cubic feet. Right-hand door 9 inch width. Can be ordered with left-hand doors. Secured with padlock. 25 inch height by 22 inch width by 15 inch depth. NAVSEA Drawing S3308-1626365.

00-543-3597

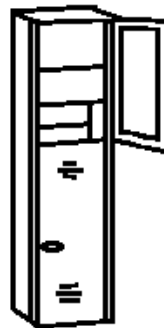
ALUMINUM ALLOYS ONLY. Natural finish. Includes semi-louvered doors, lever handle, and padlock locking device. Legs or feet not included.

ONE TIER, One wide. Single locker, with eight compartments. Includes: one general drawer, one capacity drawer, one towel rack, and eyelet. Approximately 72 inch height by 22 inch width by 15 inch depth. Intended for use in shipboard Chief Petty Officers berthing spaces. NAVSEA Drawing S3308-1626365.



00-543-3596

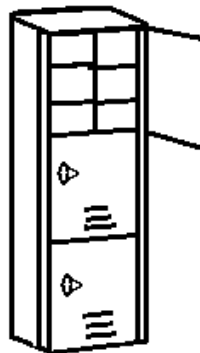
TWO TIERS, One wide. Each locker will contain five general purpose compartments. Includes: one general drawer, one towel rack, and one toothbrush rack. 75 inch height by 17 inch width by 17 inch depth. NAVSEA Drawing 805-1626432.



Door

00-543-3592\* RH  
00-543-3593 LH  
\* As shown in illustration.

THREE TIERS, One wide. Each locker contains five general purpose compartments. Includes one general drawer, one towel rack, and one toothbrush rack. 75 inch height by 26 inch width by 17 inch depth. For use in shipboard crew berthing spaces where underberth stowage is not available. NAVSEA Drawing 805-1626432.



Door

00-543-3594 RH

ALUMINUM PRIMER with light Gray enamel finish. One Tier, One Wide. Contains hanger bar and padlock locking device. NAVSEA Drawing 803-1749239.

	H/In.	W/In.	Dia/In.
00-148-9942*	37	10	22
00-357-0983	37	8	22

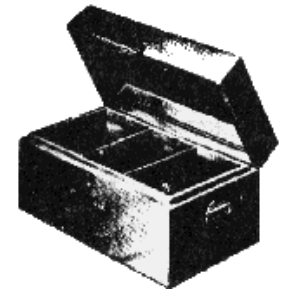
\* NAVSEA Dwg 805-1749239.

## LOCKER, MEDICAL

Aluminum, Gray enamel finish. Watertight. Catch and keeper locking device and clips for Bulkhead mounting. For shipboard medical material dispersal. 20 inch width by 16.5 inch height by 8.5 inch depth. NAVSEA Drawing S3702-921917.

00-368-4792

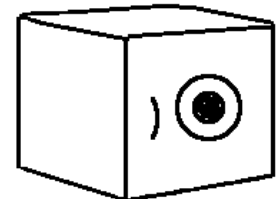
Aluminum, three compartments. Hasp and staple padlock locking device. Plate worded "Medical Locker". Approximately 30 inch width by 17 inch height by 17 inch depth. NAVSEA Drawing S3702-921575.



00-368-4795

## LOCKER, SAFE

STATEROOM. Steel, light Gray enamel finish. One storage compartment, with side swinging door and combination lock. For shipboard use in office spaces or staterooms. Approximately 12 inch height by 13.5 inch width by 12.5 inch depth. NAVSEA Drawing S3209-860212.

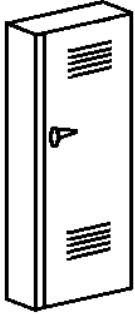


00-243-2362

## LOCKER, STOWAGE

Aluminum construction. Four fixed shelves and removable bottom for deck maintenance and inspection. For shipboard use as a cleaning gear locker or battle dressing station. Approximately 24 inch width by 70 inch height by 18 inch depth. NAVSEA Drawing 805-1648663.

# CLASS 2090



00-115-5148

## PLUG AND FLANGE

Cast Bronze. Approximately 0.750 inches. NPT thread; 3/8 inch diameter flange; 1.250 inch length threaded neck; 7/8 inch hull thickness.

00-805-8336

## RACK, BOOK

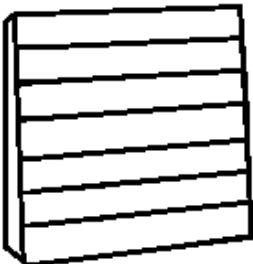
Aluminum construction, Gray enamel finish. Two shelves, 15.5 inch between shelves. Internal guard rails to prevent books from falling out. Two book compressors on slide track, and four clips for bulkhead mounting. 18.75 inch rack support mounting centers. Approximately 36 inch length by 25.5 inch height by 12.8 inch depth. NAVSEA Drawing 805-1749061.



00-264-4859

## RACK, MAGAZINE

Aluminum, with Gray color. Six compartments with closed ends. Approximately 34.6 inch height by 30 inch length by 9.8 inch width. Intended for use in shipboard lounge areas. NAVSEA Drawing S3304-860200.



00-369-4571

## REPAIR KIT, INFLATABLE CRAFT

Inflatable craft repair kit designed for non-bladder type boats. 14 components.

00-287-6232

## SERVER, DINING ROOM

ALUMINUM, with Gray enamel finish. Overall approximately 38 inch height by 24 inch length by 19 inch depth including drawers as indicated. NAVSEA Drawing 805-1625029.

OPEN TYPE, with two top drawers and four bottom drawers. Unit 2.

00-638-1168

CLOSED TYPE. With one top drawer, two bottom drawers, and two swinging doors. Unit 1.

00-638-0049

## SHORE, DAMAGE CONTROL ADJUSTABLE

Steel material overall.

Overall weight approximately 43 pounds. Adjust from 3 to 5 foot in length.

00-058-3737

Overall weight approximately 60 pounds. Adjust from 6 to 11 foot in length.

00-052-1581

## STOOL, REVOLVING

Aluminum frame with Gray enamel finish. Nonreversible 14 inch diameter seat. Rubber tips on all four leg ends. Height adjust 26 to 32 inches from floor. NAVSEA Drawing 805-1627547.



00-266-7463

## TABLE, DINING

Aluminum, with light Gray enamel finish. High pressure plastic laminate top with four folding type legs. 30 inch height by 27 inch width. Length as listed below. Intended for use in areas requiring portable tables.



6 FOOT LONG. Six person table. NAVSEA Drawing 805-1623866.

00-351-2322

8 FOOT LONG. Eight person table. NAVSEA Drawing 805-1624536.

00-351-2323

## TREAD, METALLIC, NONSKID

Aluminum alloy, 3 rib stubbed. 24 inch length by 9 inch width. Drilled hole mounting feature included.

01-237-3208

## WARDROBE

Aluminum with gray enamel finish. Unlined, with two swinging doors and one bottom drawer. Features: two shoe racks, one tie rack, and one clothes compressor. 72 inch height by 24 inch width by 22.125 inch depth. Knockdown construction. For shipboard use in staterooms. NAVSEA Drawing 805-1622993.

00-802-8314

## WEIGHT, CANVAS BAG

A heavy metallic disk. Approximately 7 inch diameter and 0.75 inch thickness. Used in weighing garbage and trash bags for disposal at sea. Especially suited for submarine use in garbage and trash ejector systems.

00-845-9150

## WINDOW, HEATED, ELECTRICAL

Electrically heated window. Intended for shipboard use in applications, where there is a requirement for resistance to condensation or icing.

00-802-8383

## WINDSHIELD WIPER, MARINE

Painted finish. 24 volt DC, single speed. 2 inch oscillating, approximately .032 inch by .25 inch blade. 6.74 inch maximum length.

00-937-6012

## **WIPER, WINDOW, PENDULUM**

With heated arm. Component of "Landing Craft, Utility"; End item number 1905-01-003-1056.

01-064-2626



# GROUP 26 TIRES AND TUBES

## CLASS 2610 TIRES AND TUBES, PNEUMATIC, EXCEPT AIRCRAFT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### INNER TUBE, PNEUMATIC TIRE, VEHICULAR

Standard Base Construction, Minimum Tensile Strength 1200 pounds per square inch, splice minimum tensile strength 500 pounds per square inch. Material synthetic rubber. Inflation device placed off center.

	Appl Design	Size Design
00-089-5997	Indl Util	6.90/6.00-9
00-173-5230	Lt Truck	7.50/8.25-16

### TIRE, PNEUMATIC, VEHICULAR

Over the road light truck, all weather tread radials, of natural rubber. Tubeless, tire load maximum capacity 2778 pounds. Maximum inflation pressure 80 pounds per square inch.

01-148-1635



# CLASS 2640

## TIRE REBUILDING AND TIRE AND TUBE REPAIR MATERIALS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

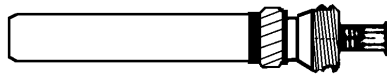
### REPAIR KIT, PUNCTURE, PNEUMATIC TIRE

Supply items: 2640-00-922-6918 Applicator liquid leak detector (1); 2640-00-922-6917, bonding compound (2); 2640-00-922-6916, Box metal (1); 2640-00-922-6922, injector tool, tubeless tire (1); 5120-00-242-7410, key, socket headscrew (1); 5110-00-595-8402, knife, craftsman's (1); 2640-00-922-6920, needle injector, tool (2); 2640-00-922-6915 repair material (4).

00-922-6921

### VALVE CORE

Stainless steel material. Used with a standard valve stem on pneumatic tires. Special Features: Copper plate on cup and pin (slot in head of pin for identification). High spring tension type, packaged 5 per box.

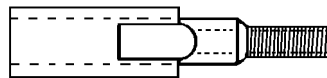


Lg/In.

00-810-5861	1.312
00-240-2061	1.312

### VALVE EXTENSION, TIRE

Rigid metal type tire extension. Standard bore size, straight shape. .302-32 external thread size. Valve core not included.



O/A Lg/In.

00-242-7619	3.375
00-242-7618	4.375
00-338-2705	4.719
00-250-2474	7.000

### VALVE, PNEUMATIC TIRE

Straight, rigid valve. Universal type for tubeless tires. Inserted from outside the rim.

00-555-2840  
00-555-2842  
00-116-6208  
00-511-3544  
00-869-7945  
00-726-7896  
00-182-4848  
00-813-7478





# GROUP 30

## MECHANICAL POWER TRANSMISSION EQUIPMENT

### CLASS 3020

#### GEARS, PULLEYS, SPROCKETS, AND TRANSMISSION CHAINS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### GEAR, SPUR

Plastic Phenolic, 60 teeth standard form, 20.0000 degree pressure angle. Hubless with 3 inch nominal pitch diameter, 3.109 inch nominal outside diameter, 0.678 inch nominal face width. Plain bore both ends, nominal bore diameter 1.000 inches.

01-207-9947

#### LINK, ROLLER CHAIN

Steel with passivate surface. Nominal pitch distance 0.1475 inches. A2 Pin link with 0.0625 inches nominal diameter. Link plate 0.0156 inches nominal thickness, link plate width 0.138 inches nominal. Pin fastening spring clip, minimum tensile strength 180 pounds per square inch.

00-902-7305

#### PULLEY, GROOVE

U groove shape, one Ball bearing.

	OD/In.	OA/Lg/In.	Face W/In.
00-287-7919	1.750	0.4355	0.310
00-964-3970	1.120	1.055	0.400



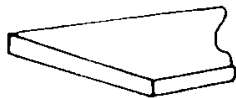
# CLASS 3030

## BELTING, DRIVE BELTS, FAN BELTS, AND ACCESSORIES

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BELT, FLAT

Single or multiple ply materials with smooth pulley surface.



#### LEATHER

	Thk/In.	W/In.	Ins/Circ/In.
00-920-5391	.100	2.000	76.375

#### PLASTIC

	Thk/In.	W/In.	Ins/Circ/In.
01-025-4005	.002	.160	4.690
01-168-1967	.002	.250	9.045
00-427-0534	.003	.250	9.150
01-194-0176	.005	.250	7.880
01-192-9670	.005	.250	10.780
00-125-8571	.008	.500	26.639
01-352-2309	.018	.375	12.500
01-062-4535	.037	.500	28.000
00-073-6356	.055	6.000	49.875
00-181-2852	.070	5.000	15.375

#### RUBBER

	Thk/In.	W/In.	Ins/Circ/In.
01-293-1959	.016	.500	18.360
01-348-3833	.022	.500	23.000
01-144-1824	.022	.500	21.600
01-131-5999	.035	.500	31.000

#### RUBBER/NEOPRENE

	Thk/In.	W/In.	Ins/Circ/In.
01-337-7289*	.020	.500	16.680
01-433-9039†	.320	.062	71.000

\* Oil and abrasion resistant.  
 † 9 ply.

#### RUBBERIZED FABRIC

	Thk/In.	W/In.	Ins/Circ/In.
00-528-0898	.027	.250	11.500
00-237-6063	.040	.625	44.000
00-181-2856	.070	5.000	21.500

CRES. Features 3 protruding trip arms spaced equally distant, comprised of 270 holes. .065 inch diameter centered and spaced equal distance.

Submarine use.

Special test features, noise free environment for submarine use. Smooth, flat.

	Thk/In.	W/In.	Ins/Circ/In.
00-431-7880	.035	1.000	55.250

### BELTING, FLAT

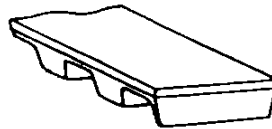
Leather belting, medium duty, single ply, vegetable tanned. Issued by the foot except as noted.

	W/In.	Thk/In.
00-242-6666 <sub>NP</sub>	1.000	.172
00-726-3831 <sub>NP</sub> *	4.000	.172

\* Mildew resistant.

### BELT, POSITIVE DRIVE

A flat belt with internal teeth designed to engage pulleys having corresponding teeth. Reinforced Rubber construction. Pitch length (P/Lg), and width (W) in inches, and number of teeth (T) as listed.



.080 inch TOOTH PITCH.

Glass or Nylon cord.

	Pitch Lg/In.	W/In.	Teeth/In.
01-149-7838	7.500	.250	94
01-162-4372*	8.400	.250	105
01-089-3858	9.600	.250	120
01-162-4373*	10.000	.250	125
01-067-8254	11.200	.250	140
01-275-0583	18.320	.375	229
01-319-0749	24.800	.500	310

\* Polyurethane material.

.081 inch TOOTH PITCH.

Polyester cords.

	Pitch Lg/In.	W/In.	Teeth/In.
01-345-8917	5.630	.188	69
01-288-1952	6.120	.188	75
01-302-3516	11.424	.250	140
01-375-7280	11.424	.312	140
01-097-0758*	11.669	.125	143
01-346-7918	11.924	.250	140
01-114-4580	13.219	.437	162

\* Polyurethane material.

.082 inch TOOTH PITCH

Glass cords.

	Pitch Lg/In.	W/In.	Teeth/In.
01-051-1960	10.037	.250	123
01-074-0793	18.605	.250	228

Polyester cords. Plastic construction. Oil, abrasion and ozone resistant.

	Pitch Lg/In.	W/In.	Teeth/In.
01-070-9109*	10.037	.250	123
01-263-3116	10.608	.406	130
01-070-9110*	15.749	.312	193

\* Plastic construction.

Synthetic cords

	Pitch Lg/In.	W/In.	Teeth/In.
01-128-2506*	7.997	.250	—

\* Plastic material.

Unknown cord.

	Pitch Lg/In.	W/In.	Teeth/In.
01-377-3155	34.517	.250	423

.083 inch TOOTH PITCH

Polyurethane material.

	Pitch Lg/In.	W/In.	Teeth/In.
01-162-4371	10.944	.120	132

.086 inch TOOTH PITCH

Fiber cords.

	Pitch Lg/In.	W/In.	Teeth/In.
01-048-4454	6.283	.125	77

.098 inch TOOTH PITCH

Steel cords.

	Pitch Lg/In.	W/In.	Teeth/In.
00-113-8007*	7.854	.203	80
01-098-5322†	14.137	.203	144

\* Plastic material.  
 † Rubber material.

.200 inch TOOTH PITCH

Fiber cords. Extra light duty.

	Pitch Lg/In.	W/In.	Teeth/In.
00-756-9687	9.000	.250	45
00-933-5356*	11.000	.375	55
00-902-6689	13.000	.375	65
00-385-8855	13.000	.125	65
01-147-1359	34.200	.375	171

\* Cleated pulley surface.

Glass cords

# CLASS 3030

	Pitch Lg./In.	W./In.	Teeth/In.
00-295-1637	10.000	.250	50
00-964-1006	14.000	.250	70
00-385-8828	16.000	.500	80
00-201-3351	21.000	.250	105
00-970-3952	18.000	.375	90
00-993-0579	20.000	.250	100
00-385-8831	21.000	.250	105
00-947-2735	24.000	.250	120

.234 inch TOOTH PITCH

Glass cords.

	Pitch Lg./In.	W./In.	Teeth/In.
00-788-4700	11.232	.125	48

.315 inch TOOTH PITCH

Synthetic cords.

	Pitch Lg./In.	W./In.	Teeth/In.
01-172-6706	25.200	1.180	80
01-377-6999	78.740	.790	250
01-265-3993	80.000	2.000	25

.375 inch TOOTH PITCH

Fiber cords.

	Pitch Lg./In.	W./In.	Teeth/In.
00-420-5626	34.500	.750	92
00-869-6418	36.750	1	98
00-705-4877	51.000	.500	136

Glass cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-203-1586	21	.500	56
00-814-6929	24	.500	64
00-122-6474*	33.500	.500	90
00-451-6380†	33.407	.843	90
00-528-0357	39	.500	104

\* 2 metal and plastic attachments, spaced 45 teeth apart on outside periphery.

† Has two metal trips 180 degrees apart inside. .375 inch width by .750 inch thick.

Steel cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-944-4485	12.375	.500	33
00-057-8802	34.500	.500	92
00-993-3967	36.700	.500	98
00-618-5625	48.000	.500	128

Synthetic cord

	Pitch Lg./In.	W./In.	Teeth/In.
01-232-2902	32.250	1.000	86

.500 inch TOOTH PITCH.

Glass cords

	Pitch Lg./In.	W./In.	Teeth/In.
01-049-9419	51.000	1.500	102

Steel cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-814-6920	27.000	.750	54
00-580-0626	36.000	1.000	72

	Pitch Lg./In.	W./In.	Teeth/In.
00-814-6919	39.000	1.000	78
00-989-6263	39.000	1.500	78
00-812-2431	42.000	1.000	84
01-188-1871	42.000	2.000	84
00-805-1061	48.000	1.000	96
00-814-6921	54.000	1.500	108
00-528-1945	60.000	1.000	120
00-966-9839	60.000	3.000	120
01-122-3686	125.000	.750	250

Synthetic cords

	Pitch Lg./In.	W./In.	Teeth/In.
01-345-2630*	30.000	.750	60
01-345-2629*	42.000	.750	84
01-341-4284*	42.000	1.500	84

\* Rubber material.

.875 inch TOOTH PITCH.

Fiber cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-403-3291	70.000	4.000	80

Glass cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-518-4431	77.000	4.000	88

Steel cords

	Pitch Lg./In.	W./In.	Teeth/In.
00-728-0996	63.000	2.000	72

## BELT, V

**FRACTIONAL HORSEPOWER DRIVE BELTS.** Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches, Industry Number, and Belt Style listed.



"3L" Cross Section. 3/8 inch width by 7/32 inch thick.

	Osd/Lg	B/Style
00-528-4458	23.0	plain
00-528-4457	24.0	cog
00-528-4452	27.0	cog
00-528-4451	28.0	plain
00-528-4450	29.0	cog
00-528-4441	36.0	cog/plain
00-528-4461	37.0	cog
00-528-4592	40.0	plain
00-528-4228	41.0	cog
00-528-4230	42.0	plain
00-528-4234	45.0	cog
00-419-9323	53.0	plain

"4L" Cross Section. 1/2 inch width by 5/16 inch thick.

	Osd/Lg	B/Style
00-528-4255	20.0	plain
00-528-4256	21.0	plain

	Osd/Lg	B/Style
00-528-4258	22.0	plain
00-528-4260	24.0	plain
00-528-4261	25.0	cog
00-528-4219	26.0	plain
00-528-4279	27.0	plain
00-528-4281	28.0	cog/plain
00-528-4283	29.0	cog/plain
00-528-4286	30.0	plain
00-528-4287	31.0	cog/plain
00-528-4264	32.0	plain
00-528-4267	33.0	plain
00-528-4269	34.0	plain
00-528-4271	35.0	cog
00-528-4273	36.0	plain
00-528-4751	37.0	cog/plain
00-528-4634	38.0	plain
00-528-4635	39.0	plain
00-528-4636	40.0	cog/plain
00-528-4756	41.0	plain
00-528-4752	42.0	plain
00-528-4753	43.0	cog/plain
00-528-4754	44.0	plain
00-528-3763	46.0	plain
00-528-3765	47.0	plain
00-528-3767	48.0	plain
00-528-3768	49.0	cog
00-528-3770	50.0	plain
00-528-3771	51.0	cog
00-528-3788	52.0	cog
00-528-3787	54.0	plain
00-528-3796	57.0	plain
00-528-3797	58.0	cog
00-528-3799	60.0	cog
00-528-3825	67.0	plain
00-883-0888	95.0	plain

"5L" Cross Section. 21/32 inch width by 3/8 inch thick.

	Osd/Lg	B/Style
00-528-4529	30.0	cog
00-528-4522	34.0	plain
00-919-9096	38.0	plain
00-528-4615	40.0	plain
00-528-4612	43.0	plain
00-528-4607	48.0	cog
00-528-4626	49.0	cog
00-528-4625	50.0	cog
00-528-4624	51.0	plain
00-528-4623	52.0	plain
00-232-5975	58.0	plain
00-528-4641	62.0	cog/plain
00-528-4734	65.0	cog
00-528-4737	68.0	cog
00-528-4627	72.0	cog
00-528-4628	73.0	cog/plain
00-528-4631	76.0	cog

**INDUSTRIAL (MULTI-DRIVE) BELTS.** Pitch length is the measure used by industry to designate V-belt length. Rubberized fabric reinforced with fiber cords. Pitch Length in inches and Belt Style listed. "A" CROSS SECTION. 1/2 inch width by 5/16 inch thick.

Standard Capacity

	Pitch Lg./In.	B/Style
00-160-8282	24.3	plain
00-160-8283	25.3	plain
00-529-0344	27.3	cog/plain
00-160-8285*	28.3	plain

	Pitch Lg/In.	B/Styl
00-127-4616	29.3	plain
01-127-7210	30.3	cog/plain
01-216-6812	31.3	cog/plain
00-529-0345	32.3	cog/plain
00-561-1960	33.3	cog
00-529-0346	34.3	cog/plain
00-809-7702	35.3	plain
00-232-5959	36.3	cog/plain
00-811-7028	38.3	plain
00-529-0349	43.3	plain
01-061-2587	45.3	plain
00-529-0350	47.3	cog/plain
00-127-4633	50.3	plain
00-529-0354	56.3	cog/plain
00-436-3067	62.0	cog
00-808-7703	65.3	plain
00-529-0487	76.3	plain
00-132-1724	87.3	plain

\* Capacity not rated.

### High Capacity

	Pitch Lg/In.	B/Styl
00-289-8523	37.3	cog/plain
01-061-4977	38.3	plain
01-026-3302	39.3	plain
00-062-8381	43.3	cog
00-350-9160	46.3	cog
00-741-6835	49.3	cog/plain
00-565-7526	52.3	cog

"B" CROSS SECTION. 21/32 inch wide by 13/32 inch thick.

### Standard Capacity

	Pitch Lg/In.	B/Styl
01-141-5085	29.0	plain
00-160-8296*	30.8	plain
00-433-3564*	31.8	plain
00-008-4860	33.8	cog/plain
01-140-9212	39.0	plain
00-793-1036	41.8	plain
01-142-2982	43.0	plain
00-529-0482	43.8	plain
00-529-0481	47.8	cog/plain
00-585-5756	53.8	cog
00-080-8811	63.8	cog
00-529-0469	76.8	cog
00-529-0472	86.8	plain
00-529-0471	91.8	cog
01-061-6627	93.8	plain
00-529-0476	121.8	cog

\* Capacity not rated.

### High Capacity

	Pitch Lg/In.	B/Styl
00-482-4654	39.8	cog
00-197-7913	60.8	cog
00-529-0467	69.8	plain

"C" CROSS SECTION. 7/8 inch width by 17/32 inch thick.

### Standard Capacity

	Pitch Lg/In.	B/Styl
00-529-0394	70.9	cog
00-529-0393	77.9	cog
00-529-0391	87.9	plain
00-529-0389	98.9	plain

## INDUSTRIAL (NARROW TYPE) BELTS.

Rubberized fabric reinforced with fiber cords. Effective outside length in inches, industry number, and belt style listed.

"3V" CROSS SECTION. 3/8 inch width by 5/16 inch thick.

### Standard Capacity

	Osd/Lg	B/Styl
00-840-9344	28.0	cog/plain
00-843-8393	31.5	cog/plain
01-033-0597	33.5	plain
00-130-5189	36.0	plain
00-789-1151	42.5	cog/plain
00-866-1393	56.0	cog/plain
00-064-8265	63.0	plain
00-497-6683*	90.0	plain

\* Capacity not rated.

### High Capacity

	Osd/Lg	B/Styl
00-967-8763	25.0	plain
00-492-8109	37.4	plain
01-271-0159	37.5	plain
00-224-2251	40.0	cog
00-431-9117	45.0	multi V
00-789-0637	45.0	plain
00-071-8018	53.0	cog/plain
00-106-1823	67.0	cog
00-880-0743	71.0	cog
00-587-0494	80.0	plain
00-828-4460	100.0	plain

"5V" CROSS SECTION. 5/8 inch width by 17/32 inch thick.

### Standard Capacity

	Osd/Lg	B/Styl
01-214-1520	60.0	cog/plain
01-316-1082*	212.0	cog/plain

\* Capacity not rated.

### High Capacity

	Osd/Lg	B/Styl
00-484-7472	118.0	plain
00-788-7406	125.0	cog

"7M" CROSS SECTION. Plastic Polyurethane body. All flex type style.

### Standard Capacity

	Osd/Lg
01-239-3678	48.0
01-165-1476	52.8
01-165-1475	70.0

## ENGINE ACCESSORY DRIVE BELTS.

Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches. Belt Style shown.

"SAE" 3/8 INCH CROSS SECTION. .380 inch width by 5/16 inch thick.

	Osd/Lg	B/Styl
01-210-2739	28.0	plain
00-228-1254	30.2	plain
00-718-8195	34.3	cog

	Osd/Lg	B/Styl
00-826-7650*	39.0	plain
00-961-9205†	40.5	plain
00-517-1249*	45.0	cog
00-504-8682	45.0	plain
01-117-7490‡	45.0	cog/plain
00-816-4569†	47.0	plain
00-861-2334*	48.0	plain
01-147-6410	48.5	plain
01-256-3616	50.0	cog/plain
00-890-4727‡	57.5	cog/plain

\* Low temperature requirement —65 degrees Fahrenheit.  
 † High capacity.  
 ‡ Approximately .440 inch width.

"SAE" 1/2 INCH CROSS SECTION. 1/2 inch width by 13/32 inch thick.

	Osd/Lg	B/Styl
01-218-6699	29.5	plain
00-756-8412	35.0	plain
00-567-9211	36.0	cog
00-077-1269*	38.0	cog
01-017-4340	39.3	cog
00-860-6971†	43.0	plain
00-811-2144†	45.0	plain
00-878-6157*	46.6	plain
00-528-6756	47.0	plain
00-569-9447†	50.0	cog
00-849-1033*	51.0	cog
00-317-4811*	52.0	cog/plain
00-081-5436	59.0	cog
00-756-8416†	59.0	plain

\* High capacity.  
 † Low temperature requirement —65 Degrees Fahrenheit.

"SAE" 11/16 INCH CROSS SECTION. .597 inch width by 13/32 inch thick.

	Osd/Lg	B/Styl
01-231-7066	49.5	Cog/plain

"SAE" 3/4 INCH CROSS SECTION. 3/4 inch width by 7/16 inch thick.

	Osd/Lg	B/Styl
00-404-3061	43.6	Cog
00-528-6819	47.0	plain
00-529-1063	51.7	plain

"SAE" 7/8 INCH CROSS SECTION. .785 inch width by 1/2 inch thick.

	Osd/Lg	B/Styl
00-174-5610*	46.0	cog/plain

\* Low temp -65 degrees Fahrenheit.

## NON SPEC BELTS

36 DEGREE ANGLE BELT. Standard capacity.

Plastic, Polyurethane material, strengthened with synthetic cord. Special feature: Polyflex belt with ribbed top.

	Lg/In.	W/In.	B/Styl
01-111-7770	36.9	.375	plain
01-111-5671	43.9	.375	plain
01-148-2792	45.5	.375	plain

Fiber and Rubber material, strengthened with a synthetic cord. Special features as listed.

# CLASS 3030

	Lg/In.	W/In.	B/Styl
00-288-2665*	41.5	.469	plain
01-272-7604*	44.0	.531	cog/plain
01-267-4280	48.5	.375	plain
01-258-5125	58.7	.450	plain

\* Oil and heat resistant.

38 DEGREE ANGLE BELT. Rubberized fabric material strengthened with synthetic cord. Heat, oil, and static resistant.

### High Capacity

	Lg/In.	W/In.	B/Styl
00-844-3591	34.6	.438	plain
00-064-4470	44.5	.469	plain
00-416-4450	51.9	.719	cog

### Standard Capacity

	Lg/In.	W/In.	B/Styl
01-044-3699	46.0	.531	plain

40 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, oil, and static resistant. Used on Grumman A-10 aircraft. Standard Capacity.

	Lg/In.	W/In.	B/Styl
00-115-0013	41.3	.500	plain

45 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Standard capacity.

	Lg/In.	W/In.	B/Styl
00-033-2801	48.0	.500	plain

46 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, Oil and static resistant. Heavy duty.

	Lg/In.	W/In.	B/Styl
00-232-2496	56.0	1.000	plain

MULTI-RIB BAND DRIVE. Rubberized fabric reinforced with synthetic cords. Nominal pitch length listed in inches.

### "J" CROSS SECTION



### 6 Sections.

	Lg/In.	W/In.	Ang/Deg
00-117-2423	38.0	—	—
01-147-8546	46.0	—	—

### 8 Sections.

	Lg/In.	W/In.	Ang/Deg
00-081-9675	40.0	1.125	—
01-198-6560	56.0	1.120	60
01-382-2063*	60.5	1.120	—
01-293-8544	60.5	1.125	40
01-271-3754	68.0	1.125	—

\* Rib width .240 inch.

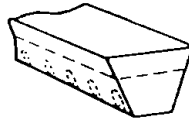
### 10 Sections.

	Lg/In.	W/In.	Ang/Deg
00-962-2984	40.0	—	—
00-007-2324	52.0	—	—

## BELTS, V, MATCHED SET

FRACTIONAL HORSEPOWER DRIVE BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches. Quantity of Belts and Belt Style listed.

"2L" CROSS SECTION 1/8 inch width by 1/4 inch thick. Standard Capacity.



	Osd/Lg	Qty/B	B/Styl
01-214-4268	43.5	2	Plain

"4L" CROSS SECTION. 1/2 inch width by 5/16 inch thick.

	Osd/Lg	Qty/B	B/Styl
00-250-9987	38.0	2	plain
00-243-7249	41.0	2	plain
00-943-1031	48.0	3	plain
00-849-1356	67.0	2	plain
00-060-2590	68.0	2	plain

INDUSTRIAL (MULTI-DRIVE) BELTS. Rubberized fabric reinforced with fiber cords. Pitch Length in inches. Quantity of Belts and Belt Style listed.

"A" CROSS SECTION. 1/2 inch width by 5/16 inch thick.

### Standard Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-160-8286	31.3	2	cog/plain
00-180-2101	32.3	2	cog/plain
00-246-0113	39.3	2	plain
00-618-2073	43.3	2	cog/plain
00-246-0165	69.3	3	cog/plain

"B" CROSS SECTION. 21/32 inch width by 13/32 inch thick.

### Standard Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-702-7942	47.8	2	cog/plain
00-528-8375	61.8	2	plain

### High Capacity

	Pitch Lg/In.	Qty/B	B/Styl
01-045-2619*	29.8	2	plain
00-998-7291	69.8	4	cog
00-316-0109	86.8	6	cog/plain

\* Heat, oil, and static resistant

"C" CROSS SECTION. 7/8 inch width by 17/32 inch thick.

### Standard Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-239-5093	82.9	3	cog/plain
00-105-8238	107.9	4	plain
00-781-8960	107.9	9	plain

### High Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-866-6131	77.9	2	cog
00-460-2517	92.9	4	plain

INDUSTRIAL (NARROW-TYPE) BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in Inches. Quantity of Belts and Belt Style as listed.

"3V" Cross Section. 3/8 inch width by 5/16 inch thick.

### Standard Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-825-0894	45.0	2	cog/plain
00-351-2545	67.0	2	plain

### High Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-946-2970	63.0	3	plain
00-172-1971	71.0	5	plain
00-980-0502*	90.0	6	plain

\* Heat, Oil, and static resistant.

"5V" CROSS SECTION. 1 inch width by 17/32 inch thick.

### Standard Capacity

	Pitch Lg/In.	Qty/B	B/Styl
01-122-1683	75.0	2	plain
00-363-5631	106.0	8	plain

### High Capacity

	Pitch Lg/In.	Qty/B	B/Styl
00-313-1048	112.0	3	plain
01-038-1746	125.0	8	plain

"7M" CROSS SECTION. Rubberized fabric and synthetic fiber material. Heat, oil, and static resistant. Reinforced with synthetic cords.

	Pitch Lg/In.	Qty/B	B/Styl
01-137-4624	44.8	2	plain

ENGINE ACCESSORY DRIVE BELTS. Rubberized fabric reinforced with fiber cords, unless otherwise noted. Effective Outside Length, Quantity of Belts, and Belt Style listed.

"SAE" 3/8 INCH CROSS SECTION. .380 inch width by 5/16 inch thick.

## Standard Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-883-1159*	42.0	2	plain
00-740-3650*	43.0	2	plain
00-833-1325	46.0	2	cog/plain
01-124-2755	47.0	2	plain
00-983-2873*	48.0	2	plain

\* Low temperature requirement -65 degrees Fahrenheit.

## High Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-778-1241*	36.0	2	plain
00-537-1531*	37.0	2	plain
00-938-5758	40.0	2	cog
00-379-2815	50.0	2	cog

\* Low temperature requirement -65 degrees Fahrenheit.

"SAE" 1/2 INCH CROSS SECTION. 1/2 inch wide by 13/32 inch thick.

## Standard Capacity

	Pitch Lg./In.	Qty/B	B/Styl
01-127-6741	25.3	2	cog
00-298-6831	29.0	2	cog
00-832-4308*	36.0	2	plain
00-124-3423*	41.0	2	cog/plain
00-865-2470†	41.3	2	plain
00-865-2701*	42.0	2	cog/plain
00-818-8926*	44.0	2	plain
00-034-1865	46.0	2	cog
00-834-0507*	47.0	2	cog/plain
00-399-5235	50.0	4	cog
00-678-1161*	60.0	2	cog/plain

\* Low temp requirement -65 degrees Fahrenheit.

† Heat, oil, and static resistant.

## High Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-179-6829	49.0	2	plain

"SAE" 11/16 INCH CROSS SECTION. .597 inch width by 13/32 inch thick.

## High Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-392-4697*	46.0	2	cog
00-257-0727†	52.3	2	cog

\* Capacity not rated.  
† Heat, oil, and static resistant.

SAE 7/8 INCH CROSS SECTION. .875 inch width.

## Standard Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-918-3606	79.0	2	plain

## High Capacity

	Pitch Lg./In.	Qty/B	B/Styl
00-109-3857	84.4	2	cog

## NON SPEC BELTS

.531 inch width. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, oil, and static resistant. Standard Capacity.

	Pitch Lg./In.	Qty/B	B/Styl
00-630-0092	47.5	2	cog/plain

36 degree angle belts. .469 inch width. Fiber, synthetic and rubberized fabric material. Reinforced with synthetic cord. Standard Capacity.

	Pitch Lg./In.	Qty/B	B/Styl
01-212-7595	30.0	2	plain
01-248-1496	34.0	2	plain
01-301-8013*	37.0	2	plain
01-200-8695*	39.0	2	cog/plain
01-282-6968*	63.5	2	cog/plain

\* Heat, oil, and static resistant.

38 degree angle belts. .469 inch wide. Rubberized fabric and composition synthetic fiber material. Reinforced with synthetic cord. Heat, oil, and static resistant. High Capacity.

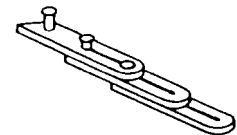
	Pitch Lg./In.	Qty/B	B/Styl
00-208-7495	43.0	2	cog/plain

38 degree angle belts. .531 inch width. Rubberized synthetic body. Reinforced with synthetic cord. Standard capacity.

	Pitch Lg./In.	Qty/B	B/Styl
01-158-4071	58.5	2	plain

## BELTING, V, ADJUSTABLE LINK

Rubberized cotton duck links joined together by studs. Machine cut to correct angle, to fit standard sheaves.



00-224-8357	O cross section
00-224-8358	A cross section
00-233-9126	B cross section



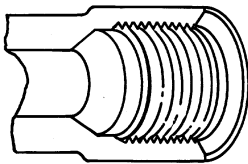


## CLASS 3040 MISCELLANEOUS POWER TRANSMISSION EQUIPMENT

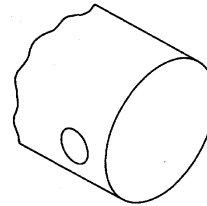
**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### CYLINDER ASSEMBLY, ACTUATING, LINEAR

Single acting single cylinder. Overall width 2 inches nominal, overall height 2 inches nominal, extended length 24.125 inches nominal, compressed length 14.5 inches nominal. Bore diameter 1.5 inches nominal. Mounting arrangement 19 four hole rectangular. Mounting facility diameter 0.438 inches nominal. 1 cylinder head end, 1 piston rod end, 5 gasket seal. UNF Thread Series.



01-147-8568



Surf. Fin. Micro In.  
32.0

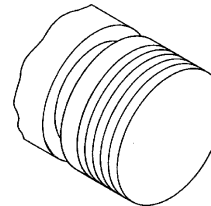
01-125-6925

First end 30 circular grooved and externally threaded. Step quantity 8, largest step diameter 1.625 inches nominal. Non-identical ends.

### GEARSHAFT, SPUR

Steel, 24 teeth, pressure angle 20.0000 degrees. Gear outside diameter 0.8125 inches nominal, diameter pitch 32, face width 0.135 inches nominal. Overall length 1.786 inches nominal, shouldered shaft, shaft largest diameter 0.813 inches nominal. Gear on end of shaft, shaft end circular grooved, cross drilled unthreaded, shaft end size 0.313 inches.

01-098-2496



Surf. Fin. Microin	O/A Lg Nom/In.
63.0	6.530

01-140-3195

First end 5 circular grooved. Step quantity 5, largest step diameter 0.500 inches nominal. Non-identical ends.

### SHAFT SHOULDERED

First end style 23 unthreaded cross drilled. Step quantity 3, largest step diameter 0.8720 inches minimum, 0.8729 inches maximum. Identical ends. Overall length 2.644 inches minimum 2.654 inches maximum

Surf. Fin. Microin	O/A Lg Nom/In.
64.0	2.269

01-294-4869



# GROUP 31

## BEARINGS

### CLASS 3110

#### BEARINGS, ANTIFRICTION, UNMOUNTED

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

#### BALL, BEARING

Steel overall. Style 520 ball. Rolling element (RE) diameter in inches below.

	RE Dia/In.
00-932-7421	1.8750

Steel Composition 440A, B or C overall. Style 520 ball. Rolling element (RE) diameter in inches below.

	RE Dia/In.
00-461-5555†	0.0624
00-044-2269*	0.0625
00-183-7537*	0.0938
00-183-9175*	0.1250
00-838-5033*	0.1875
00-724-7884†	0.2500
00-198-1050	0.2500

\* AFBMA standard tolerance for balls, Grade 48

† AFBMA standard tolerance for balls, Grade 10

Steel overall.

	RE Dia/In.
00-011-9935	0.3749

Steel composition E50100 or Steel composition E51100 or Steel composition E52100 overall. Style 520, ball. Rolling element (RE) diameter in inches below.

	RE Dia/In.
00-100-6155*	0.3750

\* AFBMA standard tolerance for balls, Grade 24

Steel composition E51100 or Steel composition E52100 overall. Style 520, ball. Rolling element (RE) diameter in inches below.

	RE Dia/In.
00-100-6151*	0.2500

\* AFBMA standard tolerance for balls, grade 24

Steel composition E52100 overall. Style 520, ball. Rolling element (RE) diameter in inches below.

	RE Dia/In.
01-027-3183*	0.1250

\* AFBMA standard tolerance for balls, Grade 50

#### BEARING, BALL, AIRFRAME

Steel Composition with Cadmium surface treatment

Style 196 single row inner ring extended both sides

Bore diameter, 0.6250 inches nominal. Overall outside diameter, 1.3750

inches nominal. Outer ring width, 0.3440 inches nominal. Inner ring width, 0.4060 inches nominal. Lubrication material, grease. Standard tolerance designation, AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal. Radial load direction. Internal radial clearance, 0.0004 inches minimum and 0.0010 inches maximum, heat treat rings and balls to Rockwell C 60 to 66 and stabilized for operation at 250 degrees Fahrenheit, radial and lateral eccentricity inner ring 0.0010 inches outer ring 0.0016 inches.

00-027-4028

Bore diameter, 1.0000 inches nominal. Overall outside diameter, 2.0000 inches nominal. Outer ring width, 0.4380 inches nominal. Inner ring width, 0.5000 inches nominal. Lubrication material, grease. Standard tolerance designation, AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal type. Radial load direction. Internal radial clearance 0.0004 to 0.0010 inches. Heat treat rings and balls to Rockwell C 60 to 66 and stabilized for operation at 250 degrees Fahrenheit, radial and lateral eccentricity inner ring, 0.0010 inches and outer ring, 0.0016 inches.

00-027-8142

Bore diameter, 0.2500 inches nominal. Overall outside diameter, 0.7500 inches nominal. Outer ring width, 0.2190 inches nominal. Inner ring width, 0.2810 inches nominal. Lubrication material, grease. Standard tolerance designation, AFBMA standard tolerance for airframe ball bearings. 2 seals. Radial load direction. Internal radial clearance 0.0004 to 0.0010 inches. Also heat treat rings and balls to Rockwell C60 to C66 and stabilized for operation at 250 degrees Fahrenheit. Also radial and lateral eccentricity inner ring 0.0010 inches outer ring 0.0016 inches.

00-030-3381

Steel Composition E51100 or 2100 ball. Steel Composition E52100 inner and outer rings. Steel CRES retainer with Plastic Polytetrafluoroethylene seal. Cadmium surface treatment.

Style 196 single row inner ring extended both sides

Bore diameter, 1.8130 inches nominal. Overall outside diameter, 2.5625 inches nominal. Outer ring width, 0.3750 inches nominal. Inner ring width, 0.4370 inches nominal. Lubrication material, grease. 2 seals. Contact bearing seal type. Radial load direction. Also heat treat rings and balls to Rockwell C60 to C66 and stabilized for operation at 250 degrees Fahrenheit. Also radial and lateral eccentricity. Inner ring 0.0010 inches and outer ring 0.0016 inches. Also 0.0003 to 0.0010 inch radial clearance.

00-042-0901

Bore diameter, 0.5000 inches nominal. Overall outside diameter, 1.1350 inches nominal. Outer ring width, 0.3130 inches nominal. Inner ring width, 0.3750 inches nominal. Lubrication material, grease. AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal type. Radial load direction. Internal radial clearance 0.0004 to 0.0010 inches. Heat treat rings and balls to Rockwell C 60 to 66 and stabilized for

# CLASS 3110

operation at 250 degrees Fahrenheit, radial and lateral eccentricity inner ring 0.0010 inches and outer ring 0.0016 inches.

00-042-0440

Bore diameter, 0.3125 inches nominal. Overall outside diameter, 0.8125 inches nominal. Outer ring width, 0.2340 inches nominal. Inner ring width, 0.2970 inches nominal. Greased lubrication. AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal type. Radial load direction. Internal radial clearance 0.0004 to 0.0010 inches. Heat treat rings and balls to Rockwell 60 to 66 and stabilized for operation at 250 degrees Fahrenheit. Radial and lateral eccentricity inner ring 0.0010 inches. Outer ring 0.0016 inches.

00-033-9851

Steel Composition E51100 or 2100 ball. Steel Composition E52100 inner and outer rings. Steel CRES retainer with Plastic Polytetrafluoroethylene seal. Cadmium surface treatment.

Style 198 single row inner ring extended both sides

Bore diameter, 0.2500 inches nominal. Overall outside diameter, 0.9014 inches nominal. Outer ring width, 0.3350 inches nominal. Inner ring width, 0.4840 inches nominal. Greased lubrication. AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal type. Self-aligning. Radial load direction. Axial play 0.025 inches maximum. Heat treat rings and balls to Rockwell C 60 to 66 and stabilized for operation at 250 degrees Fahrenheit. 10 degrees self-aligning in either direction test KX.

00-042-4806

Bore diameter, 0.2500 inches nominal. Overall outside diameter, 0.7500 inches nominal. Outer ring width, 0.2190 inches nominal. Inner ring width, 0.2810 inches nominal. Greased lubrication. AFBMA standard tolerance for airframe ball bearings. 2 seals. Contact bearing seal type. Self-aligning. Internal self-alignment location. Axial play 0.025 inches maximum. Heat treat rings and balls to Rockwell C60 to 66 and stabilized for operation at 250 degrees Fahrenheit. 8 degrees self-aligning in either direction.

00-042-4807

Style 204 double row. Bore diameter, 0.2497 inches minimum and 0.2500 inches maximum. Overall outside diameter, 0.7496 inches minimum and 0.7500 inches maximum. Outer ring width, 0.7496 inches minimum and 0.7500 inches maximum. Inner ring width, 0.8725 inches minimum and 0.8750 inches maximum. Lubrication material, grease. 2 seals. Radial load direction. SPECIAL FEATURES, 40 to 50 % full of specified lubricant, 0.440 inch ounce maximum starting torque.

00-180-6560

Style 206 double row, self aligning. Bore diameter, 0.2497 inches minimum and 0.2500 inches maximum. Overall outside diameter, 0.9010 inches minimum and 0.9014 inches maximum. Outer ring width, 0.4640 inches nominal. Inner ring width, 0.6845 inches minimum and 0.6870 inches maximum. Lubrication material, grease. 2 seals. Bearing seal type, contact. Self-aligning. Self-alignment location, internal. Radial load direction. SPECIAL FEATURES: 10 degrees self-alignment in either direction, 40 to 50 % full of specified lubricant, 0.440 inch ounce maximum starting torque.

00-180-6561

Plastic Polytetrafluoroethylene Seal, Contact Bearing Seal, Radial load direction.

	Bore Dia/In	O/A OD/In	Outer Ring W/In	Inner Ring W/In
00-027-8758	0.1900	0.6250	0.0016	0.0010
00-023-4810	0.1900	0.6250	0.0016	0.0010
00-023-6669	0.0.2500	0.9014	0.0.0016	0.0010
00-023-7007	0.3125	1.2500	0.3750	0.5580
00-023-4022	0.3750	0.8750	0.0016	0.0010

	Bore Dia/In	O/A OD/In	Outer Ring W/In	Inner Ring W/In
00-277-8348	0.4297	0.7497	0.7475	0.8725
00-027-3401	0.5000	1.6875	0.0016	0.0010
00-023-4022	0.6250	1.9375	0.0016	0.0010
00-027-7423	0.7500	1.6250	0.3750	0.4370
00-027-8142	1.0000	2.0000	0.0016	0.0010
00-027-8143	1.2500	2.2500	0.4380	0.5000

## BEARING, BALL, ANNULAR

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. One seal, contact seal bearing, radial load direction.

Standard Internal Fit-Up

	O/A W/MM	Bore Dia/MM	O/A OD/MM
00-107-7568	25.0	45.0	100.0

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. One shield, radial load direction. Standard internal fit-up.

	O/A W/MM	Bore Dia/MM	O/A OD/MM
00-555-5339	12.0	17.0	40.0
00-554-3304	17.0	35.0	72.0
00-554-5962	17.0	35.0	72.0
00-554-5719	23.0	40.0	90.0
00-554-3359	27.0	50.0	110.0
00-554-5656	31.0	60.0	130.0
00-155-6230	33.0	65.0	140.0

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. Two shields, radial load direction. Standard internal fit-up.

	O/A W/MM	Bore Dia/MM	O/A OD/MM
00-554-3256	9.0	15.0	32.0
00-554-5314	10.0	12.0	32.0
00-516-5159	10.0	17.0	35.0
00-516-5171	11.0	15.0	35.0
00-554-2975	16.0	30.0	62.0
00-554-5412	19.0	30.0	72.0
00-555-5209	21.0	35.0	80.0
00-155-6267	27.0	50.0	110.0
00-155-6283	29.0	55.0	120.0
00-155-6298	31.0	60.0	130.0
00-155-6302	33.0	65.0	140.0

	O/A W/MM	Bore Dia/MM	O/A OD/MM
00-144-8869	9.0	10.0	30.0
00-144-8603	14.0	20.0	47.0
00-144-8623	15.0	25.0	52.0
00-144-8648	17.0	35.0	72.0
00-144-8631	17.0	25.0	62.0
00-158-8161	23.0	40.0	90.0

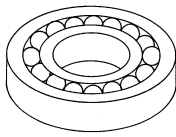
ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. 2 seals, radial load direction, standard internal fit-up.

	O/A W/In.	Bore Dia/MM	O/A OD/MM
00-198-2079*	0.6875	17.00	40.00
00-198-2856*	0.8750	20.00	52.00
00-156-5044*	1.1875	30.00	72.00
00-156-5046*	1.3750	35.00	80.00
00-158-8255*	1.4375	40.00	90.00
00-227-4110*	1.5625	45.00	100.00
00-156-5048*	1.7500	50.00	110.00
00-158-8265†	1.9375	55.00	120.00
00-158-8269*	2.1250	60.00	130.00

\* Without Grease Plug

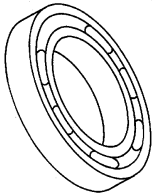
† Labyrinth

O/A W/In.	Bore Dia/MM	O/A OD/MM
-----------	-------------	-----------



O/A W/MM	Bore Dia/MM	O/A OD/MM
00-144-8589	12.0	40.0

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. Radial load direction.



O/A W/MM	Bore Dia/MM	O/A OD/MM
00-144-8663	23.0	90.0

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. Two Seals, Radial load direction.

O/A W/In.	Bore Dia/In.	O/A OD/In.
00-245-5205	0.3125	1.1250

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. Radial load direction.

O/A W/MM	Bore Dia/MM	O/A OD/MM
00-293-9302	19.0	72.0
00-555-5207	21.0	80.0

ABEC No. 1 tolerance designation, straight bore shape, ground finish, pressed retainer fabrication method. Two Seals, Contact bearing seal, Radial load direction.

O/A W/MM	Bore Dia/MM	O/A OD/MM
00-722-1185	0.3438	1.3750

Steel overall. 10A non-loading groove, non-separable style. Overall width, 17.0 millimeters nominal. Bore diameter, 25.00 millimeters nominal. Overall outside diameter, 62.00 millimeters nominal. ABEC number 1 standard tolerance designation. Bore shape, straight. Ground surface finish. Pressed retainer fabrication method. Radial load direction.

00-144-8519

Steel ball, inner and outer ring. 10A style, non-loading groove, non-separable. Overall width, 15.0 millimeters nominal. Bore diameter, 25.00 millimeters nominal. Overall outside diameter, 52.00 millimeters nominal. Standard tolerance designation, ABEC number 1. Straight bore shape. Ground surface finish. Radial load direction.

00-144-8518

Steel ball, inner and outer ring; and retainer

Rubber Synthetic seal. 10A non-loading groove, non-separable style.

ABEC Number 1 standard tolerance designation.

O/A W/MM	Bore Dia/MM	O/A OD/MM
00-108-9225	11.0	35.00
00-108-9247	12.0	40.00

O/A W/MM	Bore Dia/MM	O/A OD/MM
00-109-1180	16.0	62.00
00-107-7580	18.0	95.00

ABEC Number 5 standard tolerance designation. Straight bore shape, ground finish, pressed retainer fabrication method. Two Seals, Contact bearing seal, Radial load direction.

Loose Internal fit-up designation.

O/A W/In.	Bore Dia/In.	O/A OD/In.
00-109-7072	0.5118	2.1653

## BEARING, BALL, DUPLEX

Steel composition E52100 ball, inner and outer ring with Steel retainer and Rubber Synthetic seal

Style 92A non-loading groove, non-separable, tandem mounting.

Overall width, 16.0 millimeters nominal. Bore diameter, 10.0 millimeters nominal. Overall outside diameter 26.0 millimeters nominal. Lubrication material, grease. Standard tolerance designation, ABEC number 1. Ground surface finish. Pressed retainer fabrication method. 2 seals. Contact bearing seal type. Radial load direction. Internal clearance, 0.0004 inches minimum and 0.0010 inches maximum radial. SPECIAL FEATURES: Bearings stabilized for operation at minus 65 to plus 250 degrees Fahrenheit, Lubrication quantity 30 to 50 % full.

00-059-6354

Overall width, 26.0 millimeters nominal. Bore diameter, 30.0 millimeters nominal. Overall outside diameter, 55.0 millimeters nominal. Grease lubrication. ABEC number 5. Ground surface finish. Machined retainer fabrication. 2 seals. Contact bearing seal. Radial load direction. Bearing pre-load rating, 100.0 pounds nominal.

00-831-8365

Radial load direction, ABEC number 5 standard tolerance. Ground surface finish.

Forged Retainer Fabrication

Style 92A non-loading groove, non-separable, tandem mounting.

Steel ball, inner and outer Ring. Copper Alloy retainer. ABEC ground number 5. Overall width, 2.6690 inches nominal. Bore diameter, 1.3774 inches nominal. Overall outside diameter, 3.9370 inches nominal. Single material response. Internal clearance, 0.0048 inches minimum radial and 0.0058 inches maximum radial.

01-034-1491

Angular load direction, ABEC number 5T standard tolerance. Ground surface finish.

Pressed Retainer Fabrication

Style 92B counterbored outer rings, non-separable, back to back mounting. Steel composition 440C ball, inner and outer rings. Cotton and Plastic Phenolic Retainer. Steel CRES shield. Single material response retainer. Overall width, 0.6040 inches minimum and 0.6240 inches maximum. Bore diameter, 3.0622 inches minimum and 3.0625 inches maximum. Overall outside diameter, 3.8746 inches minimum and 3.8750 inches maximum. 2 shields. Bearing preload rating, 90,0 pounds minimum and 110.0 pounds maximum. Contact angle, 15.0 degrees minimum and 25.0 degrees maximum. SPECIAL FEATURES: Vacuum impregnate retainer with specified oil, centrifuge for 2 minutes at 100 G after vacuum; inscribe match mark on outside diameter of each bearing; one shield each bearing.

# CLASS 3110

01-191-3230

Angular load direction, ABEC number 1 standard tolerance. Ground surface finish, machined retainer fabrication method. Light bearing preload designation.

Overall width, 15.0 millimeters, nominal. Bore diameter 20.00 millimeters nominal. Overall outside diameter 52.00 millimeters nominal. 90A universal ground faces, counterbored outer ring, non-separable. Steel ball with steel inner and outer rings.

00-101-4641

Steel ball; inner and outer ring. Plastic Phenolic retainer. 90A universal ground faces, counterbored outer ring, non-separable style. Overall width, 21.0 millimeters nominal. Bore diameter, 35.0 millimeters nominal. Overall outside diameter, 80.0 millimeters nominal. ABEC number 3 standard tolerance designation. Ground surface finish. Machined retainer fabrication method. Angular load direction. Light bearing preload designation. SPECIAL FEATURES: Pair of bearings.

00-864-0575

Steel ball; inner and outer ring. Copper Alloy retainer. 90A universal ground faces, counterbored outer ring, non-separable. Overall width, 21.0 millimeters nominal. Bore diameter, 35.00 millimeters nominal. Overall outside diameter, 80.00 millimeters nominal. ABEC number 1 standard tolerance designation. Ground surface finish. Pressed retainer fabrication method. Angular load direction. Light bearing preload designation.

00-109-1340

Angular load direction. ABEC number 1 standard tolerance. Ground surface finish. Pressed retainer fabrication method.

Medium bearing preload

Steel ball, inner and outer ring. Copper Alloy retainer. 92B counterbored outer rings, non-separable, back to back mounting style. Overall width, 32.00 millimeters nominal. Bore diameter, 35.0 millimeters nominal. Overall outside diameter, 80.00 millimeters nominal. SPECIAL FEATURES: Angularity greater than 25 degrees.

00-156-8039

Angular load direction. ABEC number 1 standard tolerance. Ground surface finish. Pressed retainer fabrication method.

Light bearing preload

90A universal ground faces, counterbored outer ring, non-separable style.

Steel overall. Overall width, 19.0 millimeters nominal. Bore diameter, 30.00 millimeters nominal. Overall outside diameter, 72.00 millimeters nominal.

00-156-8023

Steel ball, inner and outer ring. Copper Alloy roller. Overall width, 27.0 millimeters nominal. Bore diameter, 50.00 millimeters nominal. Overall outside diameter, 110.00 millimeters nominal. SPECIAL FEATURES: Pair of bearings, angularity greater than 25 degrees.

00-158-8303

Steel ball, inner and outer ring. Copper Alloy retainer. Overall width, 23.0 millimeters nominal. Bore diameter, 40.00 millimeters nominal. Overall outside diameter, 90.00 millimeters nominal.

00-158-8295

## BEARING, BALL, ROD END

Style 466 Double Row, Staggered, Ball

Shank Style 651 Externally Threaded

Surface Treatment. Cadmium all External/Exposed Metal Surfaces.

Steel composition E52100 ball and inner ring. Steel composition 4130 or 4720 outer ring. Plastic Polytetrafluoroethylene and Steel CRES seal. Self-alignment angle, 10.00 degrees nominal. Overall length, 2.3440 inches nominal. Bore diameter, 0.2500 inches nominal. Overall outside diameter, 0.9380 inches nominal. Outer ring width, 0.4380 inches nominal. Inner ring width, 0.5930 inches nominal. Length from bore center to shank end, 1.8750 inches nominal. Shank diameter, 0.3750 inches nominal. Shank thread length, 1.1250 inches nominal. UNF threads, 0.375 inches, 24, 3A, Right-hand. Greased lubrication. 2 seals. Contact bearing seal type. Self-aligning. Internal self-alignment location. SPECIAL FEATURES: Shank end chamfered, 0.29 to 0.36 grams amount of specified lubricant, shank heat treated to 90,000/150,000 PSI.

00-180-6566

Steel ball; inner and outer ring with Rubber Synthetic seal and Steel shaft. Self-alignment angle, 10.00 degrees nominal. Overall length, 3.0630 inches nominal. Bore diameter, 0.3122 inches minimum and 0.3125 inches maximum. Overall outside diameter, 1.2400 inches minimum and 1.2510 inches maximum. Outer ring width, 0.6500 inches nominal. Inner ring width, 0.8700 inches nominal. Length from bore center to shank end, 2.4380 inches nominal. Shank diameter, 0.4375 inches nominal. Shank thread length, 1.5630 inches nominal. UNF, 0.438 inches at 20 threads per inch, 3A, Right-hand. Lubrication material, grease. 2 seals. Contact bearing seal type. Self-aligning. Self-alignment location, internal. SPECIAL FEATURES: 0.0004 inches maximum radial clearance.

00-079-9960

Rubber Synthetic Seal

Steel ball, inner and outer ring; rod end body. Self-alignment angle, 10.00 degrees nominal. Overall length, 1.9530 inches nominal. Bore diameter, 0.1895 inches minimum and 0.1900 inches maximum. Overall outside diameter, 0.7810 inches nominal. Outer ring width, 0.3280 inches nominal. Inner ring width, 0.4320 inches minimum and 0.4370 inches maximum. Length from bore center to shank end, 1.5620 inches nominal. Shank diameter, 0.2500 inches nominal. Shank thread length, 1.0000 inches nominal. UNF threads, 0.250 inches, 28, 3A, Right-hand. Greased lubrication. 2 seals. Contact bearing seal. Self-aligning. Internal self-alignment location. SPECIAL FEATURES: Tested, selected and classified by assembly manufacturer at his plant.

00-618-0868

Shank Style 657 Internally Threaded with Hexagon End

Steel ball, inner and outer ring; shaft. Self alignment angle, 10.00 inches nominal. Overall length, 1.9380 inches nominal. Bore diameter, 0.2500 inches nominal. Overall outside diameter, 0.9380 inches nominal. Outer ring width, 0.4380 inches nominal. Inner ring width, 0.5930 inches nominal. Length from bore center to shank end, 1.4690 inches nominal. Shank diameter, 0.4380 inches nominal. Width across flats, 0.4380 inches nominal. Shank thread length, 0.8120 inches nominal. UNF threads, 0.312 inches, 24, 3B, Left-hand. Greased lubrication. 2 seals. Contact bearing seal type. Self-aligning. Internal self-alignment location.

00-651-0320

Steel Overall

Plastic Seal

Cadmium Surface Treatment

## Shank Style 651 Externally Threaded

Self-alignment angle, 10.00 degrees nominal. Overall length, 3.0630 inches nominal. Bore diameter, 0.3122 inches minimum and 0.3125 inches maximum. Overall outside diameter, 1.2400 inches minimum and 1.2600 inches maximum. Outer ring width, 0.6460 inches minimum and 0.6660 inches maximum. Inner ring width, 0.8650 inches minimum and 0.8700 inches maximum. Length from bore center to shank end, 2.4280 inches minimum and 2.4480 inches maximum. Shank diameter, 0.3750 inches nominal. Shank thread length, 1.5320 inches minimum and 1.5940 inches maximum. UNJF threads, 0.375 inches, 24, 3A, right-hand. Greased lubrication. 2 seals. Contact bearing seal type. Self-aligning, internally. SPECIAL FEATURES: 80 % full of specified lubricant; standard NAS 513 keyway in shank.

01-126-1292

Self-alignment angle, 10.00 degrees nominal. Overall length, 3.0630 inches nominal. Bore diameter, 0.3122 inches minimum and 0.3125 inches maximum. Overall outside diameter, 1.2400 inches minimum and 1.2600 inches maximum. Outer ring width, 0.6460 inches minimum and 0.6660 inches maximum. Inner ring width, 0.8650 inches minimum and 0.9700 inches maximum. Length from bore center to shank end, 2.4280 inches minimum and 2.4480 inches maximum. Shank diameter, 0.4375 inches nominal. Shank thread length, 1.5320 inches minimum and 1.5940 inches maximum. UNJF Threads, 0.438 inches, 20, 3A, right-hand. Greased lubrication. 2 seals. Contact bearing seal type. Self-aligning, internally. SPECIAL FEATURES: 80 % full of specified lubricant; standard NAS 513 keyway in shank.

01-126-1294

Self alignment angle, 10.00 degrees nominal. Overall length, 2.3290 inches minimum and 2.3590 inches maximum. Bore diameter, 0.2497 inches minimum and 0.2500 inches maximum. Overall outside diameter, 0.9280 inches minimum and 0.9480 inches maximum. Outer ring width, 0.4280 inches minimum and 0.4480 inches maximum. Inner ring width, 0.5880 inches minimum and 0.5930 inches maximum. Length from bore center to shank end, 1.8650 inches minimum and 1.8850 inches maximum. Shank diameter, 0.3750 inches nominal. Shank thread length, 1.0940 inches minimum and 1.1560 inches maximum. UNJF threads, 0.375 inches, 24, 3A, right-hand. Greased lubrication. 2 seals Contact bearing seal. Self-aligning, internally.

00-232-3075

Self alignment angle, 10.00 degrees nominal. Overall length, 3.0480 inches minimum and 3.0780 inches maximum. Bore diameter, 0.3122 inches minimum and 0.3125 inches maximum. Overall outside diameter, 1.2400 inches minimum and 1.2600 inches maximum. Outer ring width, 0.6460 inches minimum and 0.6660 inches maximum. Inner ring width, 0.8650 inches minimum and 0.8700 inches maximum. Length from bore center to shank end, 2.4280 inches minimum and 2.4480 inches maximum. Shank diameter, 0.3750 inches nominal. Shank thread length, 1.5320 inches minimum and 1.5940 inches maximum. UNJF threads, 0.375 inches, 24, 3A, right-hand. Greased lubrication. 2 seals. Contact bearing seal. Self-aligning, internally.

00-232-3428

## Shank Style 659 Hollow

Steel Overall

Plastic Seal

Self-alignment angle, 10.00 degrees nominal. Overall length, 3.0630 inches nominal. Bore diameter, 0.3122 inches minimum and 0.3125 inches maximum. Overall outside diameter, 1.2400 inches minimum and 1.2600 inches maximum. Outer ring width, 0.6460 inches minimum and 0.6660 inches maximum. Inner ring width, 0.8650 inches minimum and 0.8700 inches maximum. Length from bore center to shank end, 2.4280 inches minimum and 2.4480 inches maximum. Any acceptable shank diameter.

Shank bore diameter, 0.5000 inches nominal. Shank bore depth, 1.5620 inches nominal. Greased lubrication. 2 seals. Contact bearing seal type. Self-aligning internally. Standard internal fit-up.

01-212-5245

Self-alignment angle, 10.00 degrees nominal. Overall length, 2.3440 inches nominal. Bore diameter, 0.2497 inches minimum and 0.2500 inches maximum. Overall outside diameter, 0.9280 inches minimum and 0.9480 inches maximum. Outer ring width, 0.4280 inches minimum and 0.4480 inches maximum. Inner ring width, 0.5880 inches minimum and 0.5930 inches maximum. Length from bore center to shank end, 1.8650 inches minimum and 1.8850 inches maximum. Shank diameter, 0.6230 inches minimum and 0.6250 inches maximum. Shank bore diameter, 0.4900 inches minimum and 0.5100 inches maximum. Shank bore depth, 1.0940 inches minimum and 1.1560 inches maximum. Greased lubrication. 2 seals. Contact bearing seal. Self-aligning internally. SPECIAL FEATURES: 80 % full of specified lubricant.

01-126-1681

## BEARING, BALL, STACK

Steel composition E51100. E52100 inner and outer ring. Copper Alloy retainer.

00-001-4665

## BEARING, BALL, THRUST

Steel composition E51100 or E52100 overall. 156 grooved race surface style. Overall height, 12.0 millimeters nominal. Overall outside diameter, 28.0 millimeters nominal. Bore smallest diameter, 12.0 millimeters nominal. AFBMA standard tolerance for thrust bearings. Ground surface finish. Rigid alignment type. Thrust directional capability designation, single.

00-156-1851

## BEARING, ROLLER, AIRFRAME

Steel inner and outer ring. Steel or Copper Alloy retainer. Steel roller. Rubber Synthetic seal. Cadmium all external/exposed metal surfaces, surface treatment. 276 concave rollers, double closure, self aligning style. Bore diameter, 0.3125 inches nominal. Overall outside diameter, 1.2500 inches nominal. Outer ring width, 0.6560 inches nominal. Inner ring width, 0.8120 inches nominal. Greased lubrication. 2 seals. Contact bearing seal type. SPECIAL FEATURES: 10 degree self-aligning in either direction, oil hole and groove in outside diameter of outer ring.

00-460-5244

Steel inner and outer ring. Steel roller. Rubber Synthetic seal. Cadmium all external/exposed metal surfaces, surface treatment. 274 spherical roller, double closure, self aligning style. Bore diameter, 0.2520 inches nominal. Overall outside diameter, 0.9014 inches nominal. Outer ring width, 0.4640 inches nominal. Inner ring width, 0.6250 inches nominal. Greased lubrication. 2 seals. Contact bearing surface. SPECIAL FEATURES: 10 degree self-alignment in either direction.

00-271-0011

## BEARING, ROLLER, CYLINDRICAL

Bore diameter, 2.2495 inches minimum and 2.2500 inches maximum. Overall outside diameter, 3.9999 inches minimum and 4.0000 inches maximum. Outer ring width, 1.4900 inches minimum and 1.5000 inches maximum. Inner ring width, 2.2400 inches minimum and 2.2500 inches maximum.

01-445-8798

# CLASS 3110

Silver Bore material. Outer ring width, 0.737 inches minimum and 0.787 inches maximum. Inner ring width, 0.8611 inches minimum and 0.8661 inches maximum. SPECIAL FEATURES: Inside surface material Silver.

01-083-2373

UnGround Surface Finish. Two Direction Locating.

Steel composition 4340 overall. Style 252D single row, non-locating, cylindrical inner and outer ring, separable. Overall width, 0.4674 inches minimum and 0.4724 inches maximum. Bore diameter, 1.1661 inches minimum and 1.1666 inches maximum. Overall outside diameter, 1.8502 inches minimum and 1.8504 inches maximum. Straight bore shape.

01-068-8266

Ground Surface Finish. Nonlocating

Extended inner ring. Overall width 0.5595. Bore diameter 2.4375. Overall outside diameter 3.3425.

00-083-1282

Internal clearance, 0.0031 inches minimum radial and 0.0036 inches maximum radial. SPECIAL FEATURES: 32 slots equally spaced on inner bore, puller groove on inner ring.

00-125-5374

Steel inner and outer ring. Copper Alloy retainer. Steel roller.

252E single row, one-direction locating, two lip inner ring, one lip outer ring, separable style. Overall width, 1.0000 inches nominal. Bore diameter, 2.0767 inches nominal. Overall outside diameter, 80.0 millimeters nominal. RBEC number 5 standard tolerance designation. Straight bore shape. Ground surface. Machined retainer fabrication method. Nonlocating. Internal clearance, 0.0012 inches minimum radial and 0.0020 inches maximum radial. SPECIAL FEATURES: Retainer to be silver plated 0.0005 to 0.0015 inches thick per AMS2412.

00-870-5266

One Direction Locating

Steel Roller and Inner/Outer Ring

Copper Alloy Retainer

RBEC number 5 standard tolerance. Internal clearance, 0.0024 inches minimum radial and 0.0040 inches maximum radial.

01-072-7433

RBEC number 5 standard tolerance. Internal clearance, 0.0006 inches minimum radial and 0.0018 inches maximum radial.

01-095-2607

Nonlocating

Steel Composition 4340 Retainer

Internal clearance, 0.0009 inches minimum radial and 0.0013 inches maximum radial. SPECIAL FEATURES: Keys on outer ring 0.154 inches minimum and 0.156 inches maximum length by 0.315 inch minimum and 0.330 inch maximum width, Radial clearance measured under 11 pound gage load.

00-536-5025

Bore diameter, 3.7402 inches nominal. Overall outside diameter, 5.1101 inches nominal. RBEC number 5 standard tolerance.

01-020-2048

## BEARING, ROLLER, JOURNAL

Steel outer ring retainer and roller. Rubber Synthetic seal.

308 solid outer race, no inner race style.

Overall width, 1.0000 inches nominal. Bore diameter, 0.7500 inches nominal. Overall outside diameter, 1.2500 inches nominal. RBEC number 1 standard tolerance. SPECIAL FEATURES: Maximum roller diameter variation in any one bearing, 0.0001 inches. Lubricated with MIL-G-25537. Maximum surface finish, raceways 10 UIN rollers 4 UIN AA.

00-840-8610

Overall width, 1.0000 inches nominal. Bore diameter, 0.7500 inches nominal. Overall outside diameter, 1.2500 inches nominal. RBEC number 1 standard tolerance. SPECIAL FEATURES: Maximum roller diameter variation in any one bearing 0.0001 inches. Maximum surface finish, raceways 10 UIN AA, Roller 4 UIN AA.

00-840-8611

## BEARING, ROLLER, NEEDLE

Steel outer ring, retainer and roller. 424 Non-separable, with roller retainer, hardened and ground style. Overall width, 0.7500 inches nominal. Bore diameter, 1.0000 inches nominal. Overall outside diameter, 1.5000 inches nominal. AFBMA standard tolerance for industrial needle bearings. Ground surface. Pressed retainer fabrication. Rigid alignment. SPECIAL FEATURES: Oil hole and groove in outer ring, manufactured standard retainer.

00-227-3240

Steel cup and seal. 418 separable rollers, open end, drawn shell style. Overall width, 1.0000 inches nominal. Bore diameter, 2.7500 inches nominal. Overall outside diameter, 3.1250 inches nominal. Greased lubrication. AFBMA class 3. Ground surface, Pressed retainer fabrication. Rigid alignment.

00-806-0035

Steel overall. Style 412 non-separable, closed end, drawn shell. Overall width, 0.7500 inches nominal. Bore diameter, 0.7500 inches nominal. Overall outside diameter, 1.0000 inches nominal. AFBMA standard tolerance for industrial needle bearings. Ground surface finish. pressed retainer fabrication. Rigid alignment. FEATURES: External lubrication fitting.

01-286-7226

Steel composition E52100 roller. Non-separable, with roller retainer, hardened and ground. Overall width 1.2475 nominal. Bore diameter 1.3764 nominal. Overall outside diameter 1.8747. Lubricated. Ground surface finish and rigid alignment.

01-256-7204

Steel Composition E52100 inner and outer ring. Steel retainer and roller. Rubber Synthetic seal. Bore diameter, 0.5000 inches nominal. Overall outside diameter, 1.0000 inches nominal. Outer ring width, 0.6250 inches nominal. Inner ring width, 0.7650 inches nominal. Greased lubrication. AFBMA standard tolerance for industrial needle bearings. Ground surface finish. 2 seals. Contact bearing surface. Rigid alignment. SPECIAL FEATURES: Oil hole and oil groove in outer race.

00-252-9621

Steel Composition E52100 or 8620 or Steel. Or Steel composition E50100 or E51100 overall. Cadmium exposed surfaces as mounted Chromium

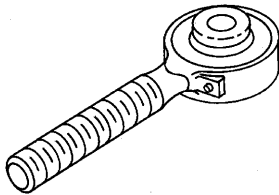


outer ring outside diameter surface treatment. 430 Cam roller, hardened and ground, non-separable style. Bore diameter, 0.6250 inches nominal. Overall outside diameter, 1.5000 inches nominal. Outer ring width, 0.6250 inches nominal. Inner ring width, 0.7500 inches nominal. Greased lubrication. AFBMA standard tolerance for industrial needle bearings. Ground surface finish. Rigid alignment. Pressed retainer fabrication. SPECIAL FEATURES: Oil hole and groove in inner ring.

00-227-2807

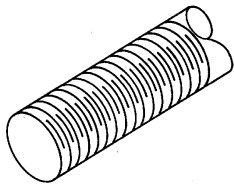
## BEARING, ROLLER, ROD END

Single row 468 concave rollers. Shank 651 externally threaded, shank diameter 0.3750 inches nominal, shank thread length 1.0000 inches nominal, UNJF thread series. Nominal thread size 0.375 inches, thread quantity per inch 24, thread class 3A, right hand thread direction. Contact bearing seal, 2 seals, internal self-alignment. Length from bore center to shank end 1.8400 inches nominal. Flush type lubricant fitting.



	O/A Lg	Bore Dia/In	O/A OD/In	Outer Ring W/In	Inner Ring W/In
00-159-1636	2.3800	0.2500	1.0800	0.3600	0.5000

Single row 468 concave rollers. Nominal thread size 0.375 inches, thread quantity per inch 24, thread class 3A, right hand thread direction. Contact bearing seal, 2 seals, internal self-alignment. Inches from bore center to shank end 1.7500 inches nominal. Shank externally threaded 651, shank diameter 0.3750 inches nominal, shank thread length 1.1250 inches nominal, thread series UNJF. Plastic flush type grease fitting, radial clearance 0.0001 inches to 0.0005 inches.



	O/A Lg	Bore Dia/In	O/A OD/In	Outer Ring W/In	Inner Ring W/In
00-702-5120	2.1500	0.2500	0.8000	0.3500	0.4370
00-630-4089	2.6990	0.2495	1.0730	0.4790	0.6250
00-198-0252	3.1070	0.3122	1.3850	0.4525	0.6845

## BEARING, ROLLER, SPECIAL

End Item: Jet engine Model F-104.

01-158-1701

## BEARING, ROLLER, TAPERED

Steel, 350 straight bore, normal angle, overall width 0.7188 inches nominal, backface corner radius 0.0620 inches nominal, standout width 0.1250 inches nominal, cone corner radius 0.0620 inches nominal. AFBMA Class 2 standard tolerance. Retainer fabrication, pressed.

	Bore Dia/In	O/A OD/In	Cone W/In	Cup W/In
00-293-8154	1.7500	2.8750	0.7188	0.5938
00-277-0286	2.0000	3.1875	0.3594	0.5625

	Bore Dia/In	O/A OD/In	Cone W/In	Cup W/In
00-679-6782	2.1250	3.8125	0.8640	0.6250

Steel overall. Straight bore, normal angle style. Overall width, 1.2500 inches nominal. Bore diameter, 2.0000 inches nominal. Overall outside diameter, 4.0000. Backface corner radius, 0.0300 inches nominal. Standout width, 0.2500 inches nominal. Cone corner radius, 0.1400 inches nominal. Cone width, 1.2500. Cup width, 1.0000 inches nominal. Pressed retainer fabrication. AFBMA class 4 standard tolerance designation.

00-013-7743

## CONE AND ROLLERS, TAPERED ROLLER BEARING

Steel, AFBMA Class 2.

	Bore Dia/In	Cone Corner R/In	Cone W/In
00-198-2169	1.2500	1.1400	0.7500
01-398-0674	1.5000	0.0625	0.4688
00-100-3530	1.5000	0.0600	0.6504
00-100-3136	1.5000	0.0781	0.7500
00-100-3537	1.6250	0.1406	0.9063
00-100-3137	1.7500	2.8750	0.7188
00-186-1119	1.7500	0.0620	0.5000
00-100-3529	2.0000	0.1406	0.6875
00-400-8419	2.0000	0.1400	0.8750
00-277-0373	2.0000	0.0620	0.7188
00-275-0044	2.0000	0.0620	0.5000
00-191-0495	2.2500	0.0620	0.7187
00-100-3585	2.3616	0.0938	0.8661
00-100-3586	2.5000	0.0800	0.8661
00-624-1538	2.5000	0.0620	0.7500
00-679-4181	2.7500	0.0625	0.7500
01-117-1026	2.7505	0.0620	0.5313
00-159-9396	3.0000	0.0620	0.7500
00-100-3578	3.0000	0.0800	0.9060
01-121-0432	3.2505	0.0620	0.8438
01-127-3831	3.2813	0.0300	1.0000
00-100-0263	3.3750	0.1406	1.1720
00-100-0650	3.6250	0.1406	1.4300
00-227-3385	3.7500	0.1400	1.3750
00-100-3621	4.0000	0.1406	1.4219

## CUP, TAPERED ROLLER BEARING

Steel overall, AFBMA Class 2, style 566 normal angle.

	OD/In	O/A W/In	Backface Corner R/In
00-004-5095	2.3280	0.4700	0.0500
00-198-2170	2.4410	0.5625	0.0460
00-100-0514	2.5625	0.3750	0.0312
00-100-0535	2.6875	0.4688	0.0600
00-100-0512	2.7170	0.5938	0.0938
00-100-0542	3.0000	0.6875	0.0312
00-277-0372	3.1875	0.5625	0.0620
00-406-0619	3.2500	0.6500	0.0500
00-100-0534	3.3464	0.5315	0.0625
00-191-0494	3.4375	0.5625	0.0620
00-606-3179	3.7188	0.5937	0.0620
00-943-5230	3.8760	0.3750	0.0620
00-785-1785	4.0000	0.5938	0.0620
00-100-0580	4.1250	0.6250	0.0800
00-159-9462	4.3125	0.5938	0.0620
00-001-4662	4.4380	0.6250	0.0300
00-151-8431	4.7812	0.8600	0.0800
00-100-0560	4.9375	0.7813	0.0625
00-195-0457	5.2500	0.8750	0.1250
00-227-2925	5.7500	1.0313	0.1250
00-142-4390	6.0000	1.1875	0.1250

# CLASS 3110

## DUPLEX RACE BALL AND ROLLER

Consists of inner and outer race. Outer race used on hydraulic motor.

00-012-4535

## HOUSING, BEARING, GEARBOX

Aluminum Alloy. 3.000 inches long and 0.800 inches high.

00-036-6334

## PLATE, RETAINING, BEARING

Steel overall material with Chromium overall surface treatment. Round style. Outside diameter, 6.00 inches nominal. Aperture diameter 4.800 inches maximum. Overall thickness, 0.087 inches nominal. Round, unthreaded mounting hole with a diameter of 0.224 inches maximum. 8 bolt circle holes with 5.600 nominal inches hole diameter.

00-079-4475

## RETAINER AND BALLS, BEARING

Steel composition 5140 ball. Steel retainer. 606 Retainer and balls, thrust style. Outside diameter, 1.6920 inches nominal. Bore diameter, 1.0520 inches nominal. Rolling element diameter, 0.2500 inches nominal. Pressed retainer fabrication. 1 retainer piece. SPECIAL FEATURES: In line.

00-198-1187

## RETAINER AND ROLLERS, BEARING

Style 608 retainer and rollers, thrust. Outside diameter 0.9270 inches nominal, bore diameter 0.5020 inches nominal, rolling element diameter 0.0781 inches nominal. Retainer fabrication pressed 2 retainer pieces

00-589-7960

Copper Alloy retainer, Steel roller. Outside diameter, 11.3790 inches nominal. Overall width, 3.5000 inches nominal. Bore diameter, 9.1239 inches nominal. Rolling element diameter, 1.1250 inches nominal. Machined retainer fabrication. 1 retainer piece.

00-278-6968

## RETAINER, BALL, BEARING

Steel overall. Outside diameter, 2.7300 inches nominal. Overall width, 0.5800 inches nominal. Bore diameter, 1.6340 inches nominal. Stamped retainer fabrication method. 1 retainer. SPECIAL FEATURES: Retainer Silver plated.

00-012-4534

## RING, BEARING, INNER

Steel composition E52100 overall. Overall width, 2.2000 inches nominal. Ground surface finish.

00-022-9401

Aluminum Alloy 7075 overall. Anodized surface treatment. 494 Inner ring, roller, cylindrical style. Overall width, 0.7450 inches minimum and 0.7550 inches maximum. Bore diameter, 1.5850 inches minimum. Overall outside diameter, 2.5225 inches nominal.

01-242-9527

Steel overall. 494 inner ring, roller, cylindrical style. Overall width, 3.4950 inches minimum and 3.5000 inches maximum. Bore diameter, 7.8728 inches minimum and 7.8740 inches maximum. Overall outside diameter, 9.1227 inches minimum and 9.1239 inches maximum. AFBMA class 00. Straight bore shape. Ground surface finish.

00-278-6951

## ROLLER ASSEMBLY

Aluminum roller, 1.12500 inch outside diameter. 0.5000 inch inside diameter. Counterbore each end 1.1255 inches minimum and 1.1270 inches maximum diameter by 0.4400 inches deep. 3.3400 inches overall length. Press fit into each end ball bearing.

00-915-7096

## ROLLER, BEARING

Steel Composition E50100 or E52100 overall. Cylindrical roller, flat ends. Overall length, 0.6000 inches minimum and 0.6200 inches maximum. Rolling element diameter, 0.2498 inches minimum and 0.2500 inches maximum.

00-009-7771

Steel composition E52100 overall. Oxide surface treatment overall. Cylindrical roller with flat ends. Overall length, 1.6000 inches minimum and 1.6050 inches maximum. Rolling element diameter, 0.7998 inches minimum and 0.8000 inches maximum.

00-019-6648

## SEAT, BEARING

Steel overall, AFBMA Class 2, style 566 normal angle.

	OD/In	O/A W/In	Bore Dia
00-820-2110	0.9370	0.0310	0.500

Steel overall. 622 Flat race surface, THRUST TYPE

	OD/In	O/A W/In	Bore Dia
00-943-5137	0.9370	0.0615	0.5000

## CLASS 3120

### BEARINGS, PLAIN, UNMOUNTED

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.**

#### BEARING, CAN

Steel. End Item: Aircraft Model F-14 Wheel, Main Landing Gear.

01-164-4064

#### BEARING, PLAIN, ROD END

Bore diameter, 0.6245 inches minimum and 0.6250 inches maximum. Inner member width, 0.6230 inches minimum and 0.6250 inches maximum. Shank style, 1 externally threaded. SPECIAL FEATURES: Passivation optional.

01-131-9932

Number 6 ball type style

Overall length 3.3250 inches nominal. Bore diameter 0.4370 inches minimum and 0.4375 inches maximum. Outer member outside diameter 1.7700 inches nominal. Outer member width 0.6300 inches nominal. Inner member width 0.8730 inches minimum and 0.8750 inches maximum. Shank thread length 1.1200 inches nominal.

00-042-5050

Overall length 3.8250 inches nominal. Bore diameter 0.4370 inches minimum and 0.4375 inches maximum. Outer member outside diameter 1.7700 inches nominal. Outer member width 0.6200 inches minimum and 0.6300 inches maximum. Inner member width 0.8730 inches minimum and 0.8750 inches maximum. Shank thread length 1.1200 inches nominal.

00-042-5051

Overall length, 2.3800 inches nominal. Bore diameter, 0.2495 inches minimum and 0.2500 inches maximum. Outer member outside diameter, 1.0000 inches nominal. Bore center to shank end distance, 1.8800 inches nominal. Outer member width, 0.2500 inches minimum and 0.25550 inches maximum. Inner member width, 0.5930 inches nominal. Shank style, 8 hollow, unthreaded. Shank diameter, 0.5480 inches minimum and 0.5530 inches maximum. Shank inside diameter, 0.3120 inches nominal. Shank hole length, 0.8200 inches nominal.

01-124-6672

Steel composition 440C inner member. Steel composition 630 or 631 or 440C race insert. Plastic race liner. Steel comp 630 or XM-12 rod end body. Hardness rating, 56.0 Rockwell C nominal inner member. 30.0 Rockwell C nominal race insert. 34.0 Rockwell C minimum and 42.0 Rockwell C maximum rod end body. Overall length, 3.3600 inches minimum and 3.3800 inches maximum. Bore diameter, 0.4370 inches minimum and 0.4375 inches maximum. Outer member outside diameter, 1.4900 inches minimum and 1.5100 inches maximum. Bore center to shank end distance, 2.6150 inches minimum and 2.6350 inches maximum. Outer member width, 0.5720 inches minimum and 0.5820 inches maximum. Inner member width, 0.7480 inches minimum and 0.7500 inches maximum. Shank style, 1 externally threaded. Shank thread length, 1.6000 inches minimum and 1.6900 inches maximum. UNF threads, 0.625 inches nominal, 18, 3A, Right-hand.

00-089-5774

Plastic Polytetrafluoroethylene or Glass inner member. Steel composition 630 race insert and rod end body. Hardness rating, 55.0 Rockwell C minimum and 62.0 Rockwell C maximum inner member. 26.0 Rockwell C minimum and 36.0 Rockwell C maximum race insert. 36.0 Rockwell C minimum and 40.0 Rockwell C maximum rod end body. Overall length, 2.1090 inches minimum and 2.1390 inches maximum. Bore diameter, 0.2495 inches minimum and 2.500 inches maximum. Outer member outside diameter, 0.8020 inches minimum and 0.8220 inches maximum. Bore center to shank end distance, 1.7080 inches minimum and 1.7280 inches maximum. Outer member width, 0.2450 inches minimum and 0.2550 inches maximum. Inner member width, 0.3390 inches minimum and 0.3440 inches maximum. Static radial load rating, 4067 pounds. Shank style, 1 externally threaded. Shank thread length, 0.9690 inches minimum and 1.0620 inches maximum. UNF threads, 0.312 inches nominal, 24, 3A, Right-hand. SPECIAL FEATURES: keyway in shank.

01-041-7130

Steel Composition 630 external outer member. Steel Comp 440C inner member. Steel comp 630 internal race insert. Hardness rating, 23.0 Rockwell C minimum and 35.0 Rockwell C maximum internal race insert. Overall length, 1.1510 inches minimum and 1.1760 inches maximum. Bore diameter, 0.1250 inches minimum and 0.1255 inches maximum. Outer member outside diameter, 0.5100 inches minimum and 0.5200 inches maximum. Bore center to shank end distance, 0.8960 inches minimum and 0.9160 inches maximum. Outer member width, 0.1820 inches minimum and 0.1920 inches maximum. Inner member width, 0.2450 inches minimum and 0.2500 inches maximum. 600 pound static radial load rating. Shank style, 1 externally threaded. Shank thread length, 0.5010 inches minimum and 0.5910 inches maximum. UNJF threads, 0.190 inches nominal, 32, 3A, Left-hand.

01-089-9834

Steel Composition 630 inner member. Cobalt Composition 6 race liner. Style, 1 shouldered flange type. Bore diameter, 0.3745 inches minimum and 0.3750 inches maximum. Bore center to shank end distance, 2.2500 inches nominal. Outer member width, 0.3020 inches minimum and 0.3120 inches maximum. Inner member width, 0.4040 inches minimum and 0.4060 inches maximum. Shank end to shoulder length, 1.7500 inches nominal. Shank style, 1 externally threaded. Shank thread length, 1.7500 inches nominal. UNF threads, 0.500 inches nominal, 20, 3A.

01-276-5999

Steel Composition 630 overall. Style, 2 shouldered ball type. Bore diameter, 0.3745 inches minimum and 0.3755 inches maximum. Outer member outside diameter, 1.9700 inches minimum and 2.000 inches maximum. Bore center to shank end distance, 3.4000 inches minimum and 3.4440 inches maximum. Outer member width, 0.6750 inches minimum and 0.6850 inches maximum. Inner member width, 0.9170 inches minimum and 0.9370 inches maximum. Shank end to shoulder length, 1.9400 inches nominal. Shank style, 1 externally threaded. Shank thread length, 1.9400 inches nominal. UNJF threads, 0.625 inches nominal, 18, 3A, Right-hand.

01-290-6494

Cobalt Composition 6 inner member Steel UNS J92200 Rod end body. Style, 6 ball type. Bore center to shank end distance, 2.5000 inches nominal. Outer member width, 0.4350 inches minimum and 0.4500 inches

# CLASS 3120

maximum. Inner member width, 0.5910 inches minimum and 0.5930 inches maximum. Shank style, 2 internally threaded. Shank thread length, 1.5000 inches nominal.

01-265-3405

Steel CRES inner member, race inset and rod end body. Oxide Film spherical surface of race insert. Style, 6 ball type. Any acceptable overall length. Bore diameter, 0.2495 inches minimum and 0.2500 inches maximum. Outer member outside diameter, 1.0000 inches maximum. Bore center to shank end distance, 1.9380 inches minimum and 1.9980 inches maximum. Outer member width, 0.2600 inches minimum and 0.2700 inches maximum. Inner member width, 0.5880 inches minimum and 0.5930 inches maximum. Static radial load rating, 8300 pounds. Shank style, 1 externally threaded. Shank thread length, 1.1900 inches minimum and 1.3100 inches maximum. UNF threads. Thread diameter, 0.3750 inches nominal, 24, 3A, Right-hand. SPECIAL FEATURES: High misalignment 23 degrees in either direction.

01-209-6498

Steel CRES overall. 34.0 Rockwell C minimum and 38.0 Rockwell C maximum overall. Style, 2 shouldered ball type. Outer member outside diameter, 2.5900 inches nominal. Bore center to shank end distance, 4.0000 inches nominal. Outer member width, 0.8600 inches minimum and 0.8700 inches maximum. Shank end to shoulder length, 2.6100 inches nominal. Shank style, 1 externally threaded. Shank thread length, 2.2500 inches nominal. UNJF threads, 0.750 inches nominal, 16 3A, Right-hand.

01-201-9481

Steel composition 440C inner member. Plastic Polytetrafluoroethylene race liner. Steel comp 4340 or E4340 rod end body. Hardness rating, 56.0 Rockwell C nominal inner member, 34.0 Rockwell C nominal rod end body. Cadmium rod end body surface treatment. Overall length, 3.0790 inches minimum and 3.1090 inches maximum. Bore diameter, 0.3745 inches minimum and 0.3750 inches maximum. Outer member outside diameter, 1.3020 inches minimum and 1.3220 inches maximum. Bore center to shank end distance, 2.4280 inches minimum and 2.4480 inches maximum. Outer member width, 0.5200 inches maximum. Inner member width, 0.6230 inches minimum and 0.6250 inches maximum. Shank style, 1 externally threaded. Shank thread length, 1.4200 inches minimum and 1.5400 inches maximum. UNF threads, 0.500 inches nominal, 20, 3A, Right-hand.

00-724-2451

Plastic Nylon case. Glass core. Outer member outside diameter, 0.8300 inches nominal. SPECIAL FEATURES: Locking.

01-455-2409

End Item: UH-60 Helicopter

01-417-0133  
01-417-0134  
01-417-0135  
01-417-0136

Steel Corrosion Resisting Body

Aircraft Model MH-53E

01-334-2931  
01-334-2932

## BEARING, PLAIN, SELF-ALIGNING

Steel Composition XM-13 inner member. Plastic Tetrafluoroethylene internal inner member. Steel CRES outer race member. Hardness rating 45.0 Rockwell C minimum and 50.0 Rockwell C maximum inner member. Style 8A with insert and/or liner. Bore diameter, 0.6245 inches minimum and 0.6253 inches maximum. Inner member width, 1.4980 inches

minimum and 1.5000 inches maximum. End Item: CH-53E Helicopter. (common and peculiar).

01-356-6970

Style 10A with insert and/or liner with staking groove.

Bore diameter 0.4995 inches minimum and 0.5000 inches maximum. Outer member outside diameter 0.9995 inches minimum and 1.0000 inches maximum. Outer member width 0.5000 inches minimum and 0.5100 inches maximum. Inner member width 0.6230 inches minimum and 0.6250 inches maximum. Static radial load rating 27500 pounds.

01-015-8846

Bore diameter 0.4995 inches minimum and 0.5000 inches maximum. Outer member outside diameter 1.4370 inches minimum and 1.4375 inches maximum. Outer member width 0.5880 inches minimum and 0.5980 inches maximum. Inner member width 0.9980 inches minimum and 1.0000 inches maximum.

00-172-2761

Bore diameter, 1.3745 inches minimum and 1.3750 inches maximum. Outer member outside diameter, 2.4995 inches minimum and 2.5000 inches maximum. Outer member width, 1.0950 inches minimum and 1.1000 inches maximum. Inner member width, 1.3700 inches minimum and 1.3750 inches maximum. Static radial load rating, 142000 pounds.

01-121-1798

Steel Composition 440C inner member. Steel Comp XM-12 outer race member. Plastic Tetrafluoroethylene race liner.

Hardness rating, 23.0 Rockwell C minimum and 62.0 Rockwell C maximum inner member and outer race member. Bore diameter, 0.4994 inches minimum and 0.5000 inches maximum. Outer member outside diameter, 1.1870 inches minimum and 1.1875 inches maximum. Outer member width, 0.5620 inches minimum and 0.5720 inches maximum. Inner member width, 0.7480 inches minimum and 0.7500 inches maximum.

00-727-3721

Steel Composition 440C inner member. Steel comp 630 outer race member. Plastic Polytetrafluoroethylene race liner.

Hardness rating, 55.0 Rockwell C minimum and 62.0 Rockwell C maximum inner member. 23.0 Rockwell C minimum and 35.0 Rockwell C maximum outer race member

Bore diameter, 0.7495 inches minimum and 0.7500 inches maximum. Outer member outside diameter, 1.4370 inches minimum and 1.4375 inches maximum. Outer member width, 0.5880 inches minimum and 0.5980 inches maximum. Inner member width, 0.7480 inches minimum and 0.7500 inches maximum. Static load rating, 46400 pounds.

01-006-9516

Bore diameter, 0.2495 inches minimum and 0.2500 inches maximum. Outer member outside diameter, 0.6557 inches minimum and 0.6562 inches maximum. Outer member width, 0.2450 minimum and 0.2550 inches maximum. Inner member width, 0.3410 inches minimum and 0.3430 inches maximum. Static radial load rating, 6040 pounds.

01-006-9515

Bore diameter, 0.6245 inches minimum and 0.6250 inches maximum. Outer member outside diameter, 0.1870 inches minimum and 0.1875 inches maximum. Outer member width, 0.4950 inches minimum and 0.5050 inches maximum. Inner member width, 0.6230 inches minimum and 0.6250 inches maximum. Static radial load rating, 30500 pounds.

01-006-9514

Bore diameter, 0.3120 inches minimum and 0.3125 inches maximum. Outer member outside diameter, 0.6870 inches minimum and 0.6875 inches maximum. Outer member width, 0.3120 inches minimum and 0.3220 inches maximum. Inner member width, 0.4350 inches minimum and 0.4370 inches maximum. Static radial load rating, 9400 pounds.

01-006-9150

Bore diameter, 0.3745 inches minimum and 0.3750 inches maximum. Outer member outside diameter, 0.8120 inches minimum and 0.8125 inches maximum. Outer member width, 0.3070 inches minimum and 0.3170 inches maximum. Inner member width, 0.4040 inches minimum and 0.4060 inches maximum. Static radial load rating, 10540 pounds.

01-006-9149

Bore diameter, 0.4370 inches minimum and 0.4375 inches maximum. Outer member outside diameter, 0.9057 inches minimum and 0.9062 inches maximum. Outer member width, 0.3380 inches minimum and 0.3480 inches maximum. Inner member width, 0.4350 inches minimum and 0.4370 inches maximum. Static radial load rating, 13200 pounds.

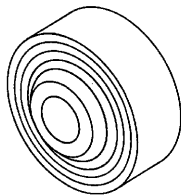
01-006-9147

Hardness rating 56.0 Rockwell C nominal inner member and 30.0 Rockwell C nominal outer race member.

Style 11A with insert and/or liner.

Bore diameter, 0.4370 inches minimum and 0.4375 inches maximum. Outer member outside diameter, 1.1870 inches minimum and 1.1875 inches maximum. Outer member width, 0.4950 inches minimum and 0.5050 inches maximum. Inner member width, 0.6230 inches minimum and 0.625 inches maximum. Static radial load rating, 16900 pounds. SPECIAL FEATURES: Outer Member May Be Of One piece Cartridge Type Or Two piece Retainer Type Construction.

00-916-9251



Style 10B without insert or liner with staking groove. Copper Alloy 172 or Copper Alloy 173 inner member Steel composition 630 outer race member, Material. Hardness rating, 37.0 Rockwell C minimum inner member, 28.0 Rockwell C minimum and 36.0 Rockwell C maximum outer race member. Bore diameter 0.4995 inches minimum and 0.5000 inches maximum. Outer member outside diameter 0.9995 inches minimum and 1.0000 inches maximum. Outer member width 0.3850 inches minimum and 0.3900 inches maximum. Inner member width 0.4950 inches minimum and 0.5000 inches maximum. Static load rating 20400 pounds.

00-323-1472

Style 11B without insert or liner. Steel overall material. Bore diameter, 0.1895 inches minimum and 0.1900 inches maximum. Outer member outside diameter, 0.5620 inches minimum and 0.5625 inches maximum. Outer member width, 0.2130 inches minimum and 0.2230 inches maximum. Inner member width, 0.2760 inches minimum and 0.2810 inches maximum.

00-618-5658

Style 11B without insert or liner. Steel composition E52100 inner member, Copper Alloy outer race member, 59.0 Rockwell C nominal inner member hardness rating. Surface treatment, Chromium inner member. Bore

diameter, 0.1895 inches minimum and 0.1900 inches maximum. Outer member outside diameter, 0.5620 inches minimum and 0.5625 inches maximum. Outer member width, 0.2130 inches minimum and 0.2230 inches maximum. Inner member width, 0.2760 inches minimum and 0.2810 inches maximum. Lubrication, Groove external outer member perforation outer race member. Special features, Inside diameter and Outside diameter concentric within 0.0050 inches. TIR, 11 degrees misalignment in either direction.

00-661-7062

Style 11B without insert or liner. Steel composition E52100 inner member, Steel composition 4130 outer race member. Surface treatment, Chromium inner member, Cadmium outer race member. Bore diameter, 0.3120 inches minimum and 0.3125 inches maximum. Outer member outside diameter, 0.6870 inches minimum and 0.6875 inches maximum. Outer member width, 0.3120 inches minimum and 0.3220 inches maximum. Inner member width, 0.4320 inches minimum and 0.4370 inches maximum.

00-662-1278

Style 10B without insert or liner with staking groove. Material, Copper Alloy 172 or Copper Alloy 173 inner member Steel composition 630 outer race member 37.0 Rockwell C minimum inner member, 28.0 Rockwell C minimum and 36.0 Rockwell C maximum outer race member. Bore diameter, 0.2495 inches minimum and 0.2500 inches maximum. Outer member outside diameter, 0.6557 inches minimum and 0.6562 inches maximum. Outer member width, 0.2450 inches minimum and 0.2500 inches maximum. Inner member width, 0.3380 inches minimum and 0.3430 inches maximum. Static radial load rating, 6330 pounds.

00-332-4437

Style 8A with insert and/or liner.

	Bore Dia	Outer Member OD	Outer Member W	Inner Member W
01-133-7940	0.2497	0.6559	0.2500	0.3405
01-161-4074	0.3122	0.6872	0.2550	0.6225
01-314-4960	0.3747	0.9997	0.4200	0.8120
01-259-9345	0.3747	0.8122	0.3120	0.4050
01-116-6688	0.3747	0.8122	0.3120	0.4050
01-263-8306	0.4997	0.9997	0.3900	0.4990
01-314-5580	0.4997	1.6880	0.8330	1.1240
01-027-4728	0.4997	0.9997	0.3900	0.4990
01-314-5581	0.497	1.5000	0.710	1.0300
01-040-4863	0.6248	1.8725	0.5670	0.7490
01-084-2543	0.7498	1.3748	0.6300	0.8740
01-060-0423	0.7498	1.5623	0.6200	1.2790
01-167-3404	0.8748	1.3123	0.4978	0.5025
01-108-3831	0.8748	1.5623	0.7030	0.8740
01-201-9479	0.9995	2.0000	0.8750	1.0930
01-050-5055	0.9997	1.7498	0.7970	0.9990
01-206-8699	1.1150	2.7500	1.2550	2.5010

Style 11A with insert and/or liner

	Bore Dia	Outer Member OD	Outer Member W	Inner Member W
00-064-5562	0.3747	1.4372	0.593	1.049

## BEARING, PLAIN, SPHERICAL

End Item: Aircraft Model CH-53E.

01-209-3040

Iron overall.

00-005-5490

Steel with Passivate inner member. Solid body style. Square inside Right

# CLASS 3120

and inside Left corners. SPECIAL Features: Teflon liner and bearing sleeve included.

	O/A Lg./In.	Body ID./In.	Spher. Body Dia./In.
00-006-4587	0.4380	A/A	0.4690

## BEARING, SLEEVE

Square all corners.

SOLID Body style.

	O/A Lg./In.	Body OD./In.	Body ID./In.
00-007-3217			

Copper Alloy overall.

Square all corners.

SOLID Body style.

	O/A Lg./In.	Body OD./In.	Body ID./In.
00-003-0614	1.000	1.1285	1.0015

Plastic Melamine overall.

Square all corners.

SPLIT body style.

	O/A Lg./In.	Body OD./In.	Body ID./In.
00-001-8108	2.2930	5.9660	5.7480

## BEARING SET, SLEEVE

Steel Composition 1010 inner layer and Copper Alloy outer layer.

00-662-8425

## BEARING, SLEEVE

Overall length, 1.4110 inches minimum and 1.4160 inches maximum. Body outside diameter, 0.4365 inches minimum and 0.4370 inches maximum. Body inside diameter, 0.3125 inches minimum and 0.3135 inches maximum. Square all corners.

01-131-3001

Overall length, 1.1300 inches minimum and 1.1350 inches maximum. Body outside diameter, 0.3115 inches minimum and 0.3120 inches maximum. Body inside diameter, 0.1900 inches minimum and 0.1910 inches maximum. Square all corners.

01-143-6748

Aluminum Alloy 7075 overall. Overall length, 3.9450 inches minimum and 3.9500 inches maximum. Body outside diameter, 4.9670 inches minimum and 4.9700 inches maximum. Body inside diameter, 4.2500 inches minimum and 4.2520 inches maximum. 2 slot antirotation/lubrication type and quantity.

01-141-2237

Style 17A Split.

Copper Alloy and Plastic Polytetrafluoroethylene inner layer. Steel outer layer. Cadmium and Chromate outer layer surface treatment. Overall length, 0.5000 inches nominal. Body outside diameter, 1.6558 inches minimum and 1.6568 inches maximum. Body inside diameter, 1.4972 inches minimum and 1.4988 inches maximum. Square all corners.

01-183-7007

Tin Alloy 12 inner layer. Steel outer layer. Surface treatment, Tin outer layer. Overall length, 2.4370 inches nominal. Body outside diameter, 2.4385 inches minimum and 2.4400 inches maximum. Body inside diameter, 2.2530 inches minimum and 2.2450 inches maximum. Corner shape, Square outside left and right corners. Chamfered inside right and left corners. Lubricant accommodation style, 72 grooved figure 8. SPECIAL FEATURES: 0.2500 inch radius, 0.2200 inch minimum and 0.2800 inch maximum deep notch in right end surface of body centered 30.0 degrees clockwise from split.

00-300-7924

Style 17B segmented.

Copper Alloy 955 overall. Surface treatment, Cadmium overall. Overall length, 1.4950 inches minimum and 1.5000 inches maximum. Body outside diameter, 4.9700 inches minimum and 4.9720 inches maximum. Body inside diameter, 4.7560 inches minimum and 4.7580 inches maximum. Chamfered all corners. Surface finish, 90.0 Micro inches overall.

00-949-5938

Style 17C solid.

Plastic Polytetrafluoroethylene inner layer, Aluminum Alloy 2024 outer layer.

Overall length, 0.2750 inches minimum and 0.2800 inches maximum. Body outside diameter, 0.5637 inches minimum and 0.5641 inches maximum. Body inside diameter, 0.4375 inches minimum and 0.4385 inches maximum. Square all corners. Surface finish, 125.0 microinches inside diameter surface of body. 125.0 microinches left and right end surfaces of body. 63.0 microinches outside diameter, surface of body.

01-122-0989

Plastic Polytetrafluoroethylene inner layer, Aluminum Alloy 2024 outer layer. Anodized outer layer.

Overall length, 0.4930 inches minimum and 0.4950 inches maximum. Body outside diameter, 0.5637 inches minimum and 0.5641 inches maximum. Body inside diameter, 0.4375 inches minimum and 0.4385 inches maximum. Square all corners. Surface finish, 125.0 micro inches inside diameter surface of body. 125.0 micro inches left end surface of body. 63.0 micro inches outside diameter surface of body. 125.0 micro inches right end surface of body.

01-121-1779

Plastic Polytetrafluoroethylene and Lead inner layer. Copper Alloy intermediate layer and Steel outer layer. Overall length, 0.7500 inches nominal. Body outside diameter, 0.9997 inches minimum and 1.0005 inches maximum. Body inside diameter, 0.8750 inches nominal. Square all corners.

00-758-7408

Material, Plastic overall. Overall length, 0.9400 inches minimum and 0.9500 inches maximum. Body outside diameter, 1.1240 inches minimum and 1.1250 inches maximum. Body inside diameter, 0.7540 inches minimum and 0.7560 inches maximum. Square outside left corner, Square outside right corner, Chamfered inside right corner, Chamfered inside left corner. Surface finish, 63.0 micro inches overall.

00-468-0094

Style 22A split.

Aluminum Alloy 7075 overall. Anodized surface treatment. Overall length, 0.9130 inches nominal. Body outside diameter, 5.0010 inches minimum and 5.0030 inches maximum. Body inside diameter, 4.750 inches minimum and 4.7530 inches maximum. Flange outside diameter, 5.1650 inches minimum and 5.1700 inches maximum. Flange width, 0.0800 inches

minimum and 0.082 inches maximum. Square outside left and right corners and square inside left and right corners. Square left flange outside right corner. Undercut left flange body corner.

01-212-0183

Style 22C solid.

Overall length 0.4950 inches minimum, 0.5050 inches maximum. Body outside diameter 1.5020 inches minimum, 1.5030 inches maximum. Body inside diameter 1.2505 inches minimum, 1.2515 inches maximum. Flange outside diameter 1.6770 inches minimum, 1.6970 inches maximum. Flange width 0.1200 inches minimum and 0.1300 inches maximum. Corner shapes, square outside left, square outside right, square inside right, square inside left, square left flange outside right, square left flange body.

00-122-7037

Glass Fiber overall. Overall length 0.5580 inches minimum and 0.5680 inches maximum. Body outside diameter, 1.0645 inches minimum and 1.0650 inches maximum. Body inside diameter, 0.8152 inches minimum and 0.8160 inches maximum. Flange outside diameter, 1.3020 inches minimum and 1.3220 inches maximum. Flange width, 0.1190 inches minimum and 0.1210 inches maximum. Square outside left corner. Square outside right corner. Square inside right corner. Square inside left corner. Square left flange outside right corner. Square left flange body corner.

00-824-2294

Steel composition 630 overall, chromium outside diameter surface of body. Overall length 1.1300 inches minimum, 1.1350 inches maximum. Body outside diameter 0.4990 inches minimum, 0.4995 inches maximum. Body inside diameter 0.3750 inches minimum, 0.3760 inches maximum. All corners square.

00-343-4815

Steel Composition 630, 410 or 416 overall. Overall length, 1.3075 inches minimum and 1.3125 inches maximum. Body outside diameter, 1.1893 inches minimum and 1.1898 inches maximum. Body inside diameter, 1.0010 inches minimum and 1.0020 inches maximum. Flange outside diameter, 1.560 inches nominal. Flange width, 0.0575 inches minimum and 0.0625 inches maximum. Square outside left and right corners. Square inside right corner. Chamfered inside left corner. Square left flange outside right corner. Square left flange body corner.

01-092-2154

Plastic inner layer. Aluminum Alloy 2024 Outer layer. Overall length, 0.2890 inches minimum and 0.3000 inches maximum. Body outside diameter, 0.8765 inches minimum and 0.8771 inches maximum. Body inside diameter, 0.7520 inches minimum and 0.7540 inches maximum. Flange outside diameter, 1.1250 inches nominal. Flange width, 0.0590 inches minimum and 0.0600 inches maximum. Square outside left and right corners. Square inside left and right corners. Square left flange outside right corner. Square left flange body corner. Surface finish, 125.0 microinches inside diameter surface of body and left end surface of body and flange. 63.0 microinches outside diameter surface of body. 125.0 microinches outside diameter surface of body and outside diameter surface of flange. 125.0 microinches right end surface of left flange. SPECIAL FEATURES: Plastic liner bonded to let end surface of flange.

01-121-1778

Plastic polytetrafluoroethylene inner layer, glass fiber outer layer. Overall length 0.6390 inches minimum, 0.6490 inches maximum. Body outside diameter 1.0640 inches minimum, 1.0650 inches maximum. Body inside diameter 0.8152 inches minimum, 0.8160 inches maximum. Flange outside diameter 1.2700 inches minimum, 1.2900 inches maximum. Flange width 0.1190 inches minimum and 0.1210 inches maximum. Corner shapes, square outside left, square outside right, square inside

right, square inside left, square left flange outside right, square left flange body.

00-781-7294

Steel composition 630 inner layer, plastic polytetrafluoroethylene intermediate layer, steel composition 410 outer layer. Overall length 0.9810 inches minimum, 0.9880 inches maximum. Body outside diameter 1.5015 inches minimum, 1.5020 inches maximum. Body inside diameter 1.0000 inches minimum, 1.0005 inches maximum. Flange outside diameter 1.8650 inches minimum, 1.8850 inches maximum. Flange width 0.1820 inches minimum and 0.1860 inches maximum. Corner shapes, square outside left, square outside right, square inside right, square inside left, square left flange outside right, round left flange body.

00-914-8671

Plastic Polytetrafluoroethylene and Plastic Polyurethane overall. Overall length, 0.2400 inches minimum and 0.2600 inches maximum. Body outside diameter, 0.390 inches nominal. Body inside diameter 0.3130 inches minimum and 0.3180 inches maximum. Flange outside diameter, 0.5520 inches minimum and 0.5720 inches maximum. Flange width, 0.0940 inches nominal Square all corners.

01-173-3730

Plastic Polytetrafluoroethylene and Plastic Polyamide and Plastic Phenolic overall. Overall length, 0.9350 inches nominal. Body outside diameter, 1.0010 inches minimum and 1.0020 inches maximum. Body inside diameter, 0.7540 inches minimum and 0.7550 inches maximum. Flange outside diameter, 1.2500 inches nominal. Flange width, 1.1250 inches nominal. Square all corners.

01-346-3859

Plastic Polytetrafluoroethylene inside diameter surface of body and left end surface of body and flange. Steel outer layer. Overall length, 0.930 inches nominal. Body outside diameter, 1.2540 inches minimum and 1.2545 inches maximum. Body inside diameter, 1.0040 inches minimum and 1.0050 inches maximum. Flange outside diameter, 1.7500 inches nominal. Flange width, 0.1250 inches nominal. Square all corners. Lubricant accommodation style, 69 grooved circular. Surface groove location and quantity, 1 internal.

01-308-1483

Copper alloy overall. Overall length 0.7450 inches minimum, 0.7550 inches maximum. Body outside diameter 1.2510 inches minimum, 1.2520 inches maximum. Body inside diameter 1.0010 inches minimum, 1.0020 inches maximum. Flange outside diameter 1.6150 inches minimum, 1.6350 inches maximum. Flange width 0.1250 inches nominal. Corner shapes, square outside left, square outside right, square inside right, square inside left, square left flange outside right, square left flange body.

00-957-7910

Copper alloy overall. Overall length 1.0000 inches nominal. Body outside diameter 1.0010 inches minimum, 1.0020 inches maximum. Body inside diameter 0.752 inches minimum, 0.7530 inches maximum. Flange outside diameter 1.3125 inches nominal. Flange width 0.1250 inches nominal. Corner shapes, square outside left, square outside right, square inside right, square inside left, square left flange outside right, square left flange body.

01-097-8113

Plastic Polytetrafluoroethylene and lead inner layer. Steel outer layer. Solid style. Overall length 0.9900 inches minimum and 1.0100 inches maximum. Body outside diameter 0.9997 inches minimum and 1.0005 inches maximum. Body inside diameter 0.8729 inches minimum and 0.8741 inches maximum.

00-054-8192

# CLASS 3120

Copper alloy overall. Style 17C solid. All corners square.

	O/A Lg	Body OD	Body ID
01-104-4965	0.5000	0.9385	0.7525
00-978-2190	0.5630	1.1155	0.6255
01-104-4966	0.6250	0.9385	0.7525
00-410-6425	1.0000	1.6907	1.4935

17C solid. Steel Composition 4130 overall. Cadmium overall surface treatment.

	O/A Lg	Body OD	Body ID
00-287-7935	0.3412	0.4383	0.3132
00-916-6302	0.6150	1.8745	1.4690

Copper alloy overall. Style 17C solid. Overall length 1.8125 inches nominal. Body outside diameter 1.2510 inches minimum, 1.2520 inches maximum. Body inside diameter 1.0010 inches minimum, 1.0020 inches maximum. All corners square.

01-108-4530

Aluminum alloy 5086 overall. Style 17C solid. Overall length 1.1250 inches nominal. Body outside diameter 1.2510 inches minimum, 1.2520 inches maximum. Body inside diameter 1.0010 inches minimum, 1.0020 inches maximum. All corners square.

01-448-6600

22C solid. Copper Alloy overall.

	O/A Lg	Body OD	Body ID
00-585-9632	0.2810	0.4395	0.3140
01-192-1507	0.5620	0.6271	0.4942
01-171-6616	0.6600	0.5647	0.4270

22C solid. Plastic inner layer. Glass and Plastic Polytetrafluoroethylene outer layer.

	O/A Lg	Body OD	Body ID
00-824-2336	0.6250	0.7517	0.5646

Style 22C solid. Plastic Polyamide overall.

	O/A Lg	Body OD	Body ID
01-019-7377	0.5800	0.3116	0.2501

Style 22C solid. Steel Composition 410 overall.

	O/A Lg	Body OD	Body ID
00-058-0729	0.6290	0.4373	0.3132

## BEARING, WASHER, THRUST

Square all corners. Shouldered.

	OD/In.	O/A Thk/In.	Ctr. Hole Dia./In.	Flange Thk/In.
00-007-3045	2.3675	0.3750	1.6695	0.1250

Plastic inner layer. Copper Alloy intermediate layer. Steel outer layer.

	OD/In.	O/A Thk/In.	Ctr. Hole Dia./In.
00-005-8276	1.2450	0.0620	0.7550

Style 23 Round

Graphite overall. Outside diameter 0.7800 inches minimum, 0.7840 inches maximum. All corners square. 35 rectangular cross-sectional shape. Overall thickness 0.1380 inches minimum, 0.1420 inches maximum. Center hole shape 42 round, diameter 0.550 inches nominal.

Outside diameter, 0.0630 inches minimum and 6.0660 inches maximum.

Square all corners. Cross-sectional shape style 35 rectangular. Number 42, round center hole shape with 5.8120 inches minimum and 5.8170 inches maximum diameter.

00-443-1736

Plastic Phenolic and Graphite overall. Outside diameter, 1.0000 inches nominal. Square all corners. Cross-sectional shape style 35 rectangular. Overall thickness, 0.0300 inches nominal. Center hole shape style 42 round. with a 0.5600 inch nominal diameter. Lubrication material, manufacturers standard.

00-998-8414

Outside diameter, 1.1150 inches minimum and 1.1250 inches maximum. Square all corners. Cross-sectional shape style 35 rectangular. Overall thickness, 0.0570 inches minimum and 0.0590 inches maximum. Center hole shape style 42 round. with a diameter of 0.5000 inches minimum and 0.5100 inches maximum.

00-942-8219

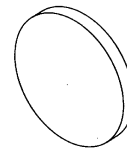
Outside diameter, 1.1150 inches minimum and 1.1250 inches maximum. Square all corners. Cross-sectional shape style 35 rectangular. Overall thickness, 0.0900 inches minimum and 0.0920 inches maximum. Center hole shape style 42 round with a 0.5000 inch minimum and 0.5100 inch maximum diameter.

00-942-8220

Copper Alloy 903 overall. Outside diameter, 1.6280 inches minimum and 1.6300 inches maximum. Square first outside corner. Square second outside corner. Square third outside corner. Square fourth outside corner. Square first inside corner. Square second inside corner. Cross-sectional shape style, number 36 shouldered. Flange thickness, 0.1250 inches nominal. Overall thickness, 0.2812 inches nominal. Shank outside diameter, 1.2490 inches minimum and 1.2500 inches maximum. Center hole shape style, number 42 round with 1.1330 inches minimum and 1.1350 inches maximum diameter. Ground surface.

Steel inner layer. Plastic intermediate layer. Copper Alloy outer layer. Outside diameter, 1.2500 inches nominal. Square all corners. Cross-sectional shape 35 rectangular. Overall thickness, 0.0630 inches nominal. Center hole shape number 42 round with 0.7500 inches nominal diameter. Lubrication feature, Perforation flat bearing surface. Bearing surface hole quantity, 1 first. Bearing surface hole diameter, 0.1040 inches nominal first.

00-723-2905



01-004-0357

Copper Alloy overall. Style 23 round.

Outside diameter 1.6250 inches nominal. Chamfer length 0.0625 inches nominal second inside corner. Chamfer angle 45.0 degrees nominal second inside corner. Cross-sectional shape 35 rectangular. Overall thickness 0.1250 inches nominal, center hole shape 42 round. Diameter 1.0150 inches nominal.

01-108-4534

Steel composition 630 overall.

Outside diameter 1.2500 inches nominal. Overall thickness 0.2500 inches



nominal. Round center hole. Diameter 0.6400 inches nominal.

00-074-2143

Steel composition XM-12 Overall

Outside diameter, 0.7700 inches nominal. Square all corners. Cross-sectional shape style, 35 rectangular. Overall thickness, 0.1750 inches minimum and 0.1850 inches maximum. Center hole shape style, 42 round. Diameter, 0.3800 inches minimum and 0.3900 inches maximum. Surface finish, 32.0 micro inches left and right sides.

01-210-7544

Plastic Polytetrafluoroethylene Inner layer and Copper Alloy and Plastic and Lead Alloy Intermediate layer. Steel outer layer.

Style 27 Round with two flats.

Width across flats, 4.7500 inches nominal. Outside diameter, 5.0000 inches nominal. Square all corners. Cross-sectional shape style, 35 rectangular. Overall thickness, 0.0430 inches minimum and 0.0450 inches maximum. Center hole shape style, 42 round. Diameter, 3.4900 inches nominal. Surface finish, 90.0 micro inches inside diameter surface of body; and largest outside diameter. 90.0 micro inches left and right sides.

00-046-4041

Plastic Polyamide overall.

Outside diameter, 1.5000 inches nominal. Square first through fourth outside corners. Square first and second inside corners. Cross-sectional shape style, 36 shouldered. Flange thickness, 0.0450 inches nominal. Overall thickness, 0.1550 inches nominal. Shank outside diameter, 1.0870 inches nominal. Center hole shape style, 42 round. Diameter, 1.0015 inches nominal. Lubrication feature: Groove external surface member.

00-062-5229

Style number 30 round with keyways.

Outside diameter, 3.2500 inches nominal. Keyway radius, 0.0780 inches nominal. 1 keyway. with a depth of 0.0780 inches nominal. Square all corners. Cross-sectional shape, number 35 rectangular. Overall thickness, 0.1230 inches minimum and 0.1250 inches maximum. Center hole shape style, number 42 round with a 2.4530 inch nominal diameter. ONE GROOVE ON SIDE.

00-661-4660

## BUSHING, SLEEVE

22C Solid Style

	O/A Lg	Body OD	Body ID
01-130-1040	0.1625	0.3140	0.2502
00-914-7531	0.1980	0.2710	0.2490
01-131-3025	0.2600	0.4970	0.3140
00-517-8423	0.2645	0.8137	0.6257
00-781-0478	0.2895	0.4383	0.2513
00-781-0446	0.2995	0.5634	0.4400
00-864-5913	0.2995	0.3758	0.2507
01-132-1141	0.3725	0.5019	0.6757
00-911-8322	0.3820	0.3705	0.2500
01-202-7725	0.4120	0.8125	0.6200
01-144-3962	0.4355	0.4340	0.3020
00-781-6796	0.4695	0.7541	0.5007
01-144-3964	0.5100	0.7640	0.7030
00-781-0466	0.5475	0.7541	0.5006
00-781-6797	0.5895	0.7541	0.6279
00-781-2085	0.6495	0.7075	0.5652
00-906-8988	0.7195	0.6879	0.4390

	O/A Lg	Body OD	Body ID
00-781-0447	0.7995	0.7075	0.5652
00-906-8992	0.8895	0.9388	0.7507
01-448-6601	1.0625	1.2562	1.0045
01-131-3008	1.0230	1.2450	1.7505

22C Solid Style

Steel Composition 305 overall.

Overall length, 0.5050 inches nominal. Body outside diameter, 0.3105 inches nominal. Body inside diameter, 0.1900 inches nominal. Flange outside diameter, 0.3695 inches nominal. Flange width, 0.0240 inches nominal. Square outside left corner. Square outside right corner. Square inside right corner. Square inside left corner. Square left flange outside right corner. Square left flange body corner.

00-708-3004

Steel Composition 440C overall.

Overall length 0.8180 inches minimum, 0.8190 inches maximum. Body outside diameter 0.8147 inches minimum, 0.8152 inches maximum. Body inside diameter 0.4375 inches minimum, 0.4380 inches maximum. Flange outside diameter 1.3020 inches minimum, 1.3220 inches maximum. Flange width 0.1240 inches minimum, 0.1260 inches maximum. Corner shapes, square outside left, square outside right, chamfered inside right, square inside left, square left flange outside right, round left flange body. Chamfer length 0.2485 inches nominal outside left corner. Radius 0.300 inches minimum, 0.0400 inches maximum. Chamfer angle 15.0 degrees nominal outside left corner.

00-781-7261

Steel Composition 4130 overall.

Cadmium and Chromate and Phosphate inside diameter surface of body. Chromium outside diameter surface of body. Cadmium and Chromate and Phosphate right end surface of body. Overall length, 0.7440 inches minimum and 0.7510 inches maximum. Body outside diameter, 0.8720 inches minimum and 0.8730 inches maximum. Body inside diameter, 0.6870 inches minimum and 0.6885 inches maximum. Flange outside diameter, 1.1770 inches minimum and 1.1870 inches maximum. Flange width, 0.0370 inches minimum and 0.0430 inches maximum. Square outside right and left corners. Square inside right and left corners. Square left flange outside right corner. Square left flange body corner. Surface finish, 125.0 micro inches inside diameter surface of body and left end surface of body and flange. 32.0 micro inches outside diameter surface of body, 125.0 micro inches outside diameter surface of flange, right end surface of body and right end surface of left flange.

00-054-2382

Cadmium Surface Treatment overall.

Overall length 0.3270 inches minimum and 0.3520 inches maximum. Body outside diameter 0.4381 inches minimum and 0.4386 inches maximum. Body inside diameter 0.3131 inches minimum and 0.3146 inches maximum. Flange outside diameter 1.5525 inches minimum and 1.5725 inches maximum. Flange width 0.0570 inches minimum and 0.0620 inches maximum.

00-043-0512

Overall length, 0.6250 inches minimum and 0.6500 inches maximum. Body outside diameter, 0.7536 inches minimum and 0.7546 inches maximum. Body inside diameter, 0.6277 inches minimum and 0.6282 inches maximum. Flange outside diameter, 0.9900 inches minimum and 1.0100 inches maximum. Flange width, 0.0570 inches minimum and 0.0620 inches maximum. Square outside left and right corners. Square inside left and right corners. Square left flange outside right corner and relief groove

# CLASS 3120

left flange body corner. Surface finish, 125.0 micro inches intermediate layer.

00-044-2385

Overall length, 0.5750 inches minimum and 0.6000 inches maximum. Body outside diameter, 0.7536 inches minimum and 0.7546 inches maximum. Body inside diameter, 0.5000 inches minimum and 0.5015 inches maximum. Flange outside diameter, 0.9900 inches minimum and 1.0100 inches maximum. Flange width, 0.0570 inches minimum and 0.0620 inches maximum. Square outside left and right corners. Square inside left and right corners. Square left flange outside right corner. Relief groove left flange body corner. Surface finish, 125.0 micro inches intermediate layer.

00-044-4263

Copper Alloy overall.

Overall length 0.3130 inches minimum, 0.3530 inches maximum. Body outside diameter 1.0010 inches minimum, 1.0020 inches maximum. Body inside diameter 0.8750 inches minimum, 0.8760 inches maximum. Flange outside diameter 1.1770 inches minimum, 1.1970 inches maximum. Flange width 0.0830 inches minimum, 0.1030 inches maximum. Corner shapes, chamfered outside left, chamfered outside right, square inside right, square inside left, square left flange outside right, square left flange body. Chamfer length 0.0250 inches minimum, 0.0350 inches maximum inside right corner. Chamfer angle 45.0 degrees nominal outside right corner, 45.0 degrees nominal inside right corner.

00-781-7306

Plastic overall.

Overall length, 0.4260 inches minimum and 0.4360 inches maximum. Body outside diameter, 0.2420 inches minimum and 0.2440 inches maximum. Flange outside diameter, 0.3010 inches nominal. Flange width, 0.0350 inches minimum and 0.0370 inches maximum. Chamfered outside left corner. Square outside right corner. Square inside right corner. Square inside left corner. Special features, rectangular shaped aperture straight through, 0.1500 inches long and 0.0530 inches wide.

00-998-8624

Overall length 0.9830 inches nominal. Body outside diameter 0.3650 inches minimum and 0.3800 inches maximum. Body inside diameter 0.2510 inches minimum and 0.2580 inches maximum. Flange outside diameter 0.6150 inches minimum and 0.6350 inches maximum. Flange width 0.1220 inches minimum and 0.1270 inches maximum.

00-235-5637

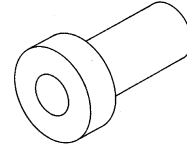
Overall length, 0.3800 inches minimum and 0.3900 inches maximum. Body outside diameter, 0.2420 inches minimum and 0.2440 inches maximum. Flange outside diameter, 0.3010 inches nominal. Flange width, 0.0350 inches minimum and 0.0370 inches maximum. Chamfered inside left corner. Special features, Rectangular shaped aperture, 0.1500 inches long, 0.0450 inches wide straight through.

00-757-2840

22C Solid Style

	O/A Lg	Body OD	Body ID
01-167-6366	0.2950	0.8137	0.6125
00-066-8659	0.3095	0.6887	0.5632
00-052-0809	0.3240	0.3741	0.2498
00-077-8373	0.3750	0.8767	0.6682
00-110-8922	0.4430	0.850	0.3900
00-941-3347	0.5050	0.5000	0.3965
00-287-7962	0.6595	0.5634	0.4382
00-074-2167	0.6745	0.8149	0.6247
01-283-2409	0.7785	0.5639	0.3752
00-066-8656	0.7995	0.5634	0.4382

	O/A Lg	Body OD	Body ID
00-104-4335	1.0600	1.0015	0.9450



17C Solid Style.

Overall length, 0.1830 inches minimum and 0.1880 inches maximum. Body outside diameter, 0.4391 inches minimum and 0.4396 inches maximum. Body inside diameter, 0.3755 inches minimum and 0.3760 inches maximum. Square all corners.

01-132-1140

Overall length, 0.3700 inches minimum and 0.3750 inches maximum. Body outside diameter, 0.4391 inches minimum and 0.4396 inches maximum. Body inside diameter, 0.3480 inches minimum and 0.3495 inches maximum. Square all corners.

01-132-1139

Overall length, 1.1870 inches nominal. Body outside diameter, 1.2500 inches nominal. Body inside diameter, 0.8750 inches nominal. Square all corners.

00-910-9335

Steel Composition 630 overall.

Passivate overall surface treatment. Overall length, 0.3170 inches minimum and 0.3220 inches maximum. Body outside diameter, 0.4985 inches minimum and 0.4990 inches maximum. Body inside diameter, 0.3750 inches minimum and 0.3760 inches maximum. Square all corners.

00-508-6072

Steel Corrosion Resisting overall.

Surface treatment, Passivate overall. Overall length, 19.05 millimeters nominal. Body outside diameter, 12.738 millimeters nominal. Body inside diameter, 6.35 millimeters nominal. End Item Gun, Automatic, 25 MM. (M242), NSN 1005-01-086-1400.

01-089-7727

Steel Composition 416 overall.

Hardness rating, 26.0 Rockwell C minimum and 38.0 Rockwell C maximum overall. Overall length, 0.9300 inches minimum and 0.9500 inches maximum. Body outside diameter, 0.3115 inches minimum and 0.3120 inches maximum. Body inside diameter, 0.1895 inches minimum and 0.1905 inches maximum. Square all corners.

00-932-5565

Steel Composition 4130 overall.

Hardness rating, 26.0 Rockwell C minimum and 33.0 Rockwell C maximum overall. Cadmium surface treatment, overall. Overall length, 0.8150 inches minimum and 0.8190 inches maximum. Body outside diameter, 0.4980 inches minimum and 0.5080 inches maximum. Body inside diameter, 0.3950 inches minimum and 0.3980 inches maximum. Square all corners.

00-941-3348

Steel Composition 4130 or 8630 overall. Cadmium overall surface treatment.

Overall length, 0.3700 inches minimum and 0.3750 inches maximum. Body outside diameter, 0.3756 inches minimum and 0.3761 inches maximum. Body inside diameter, 0.2500 inches minimum and 0.2515 inches maximum. Square outside left and right corners. Chamfered Inside right and left corners. Surface finish, 125.0 micro inches intermediate layer. SPECIAL FEATURES: Inside and outside diameters to be parallel and concentric within 0.0030 TIR 80205–NAS75 Professional/Industrial Association Standard.

00-661-6971

Overall length, 0.2762 inches minimum and 0.2812 inches maximum. Body outside diameter, 0.3756 inches minimum and 0.3761 inches maximum. Body inside diameter, 0.2500 inches minimum and 0.2515 inches maximum. Square outside left and right corners. Chamfered inside right and left corners. Surface finish, 125.0 micro inches intermediate layer. SPECIAL FEATURES: Inside an outside diameters to be parallel and concentric within 0.0030 TIR 80205–NAS75 Professional/Industrial Association Standard.

00-287-6992

Aluminum Alloy overall.

Overall length, 0.6870 inches minimum and 0.6970 inches maximum. Body outside diameter, 1.3752 inches minimum and 1.3762 inches maximum. Body inside diameter, 1.2290 inches minimum and 1.2340 inches maximum. Square all corners.

00-731-7967

Steel Composition 630 overall, AMS 5643 ASSN STD single material response overall. Surface treatment, Passivate overall.

Overall length, 0.2860 inches minimum and 0.2910 inches maximum. Body outside diameter, 0.3735 inches minimum and 0.3740 inches maximum. Body inside diameter, 0.2500 inches minimum and 0.2510 inches maximum. Square all corners.

00-270-7706

Overall length, 0.1610 inches minimum and 0.1660 inches maximum. Body outside diameter, 0.3735 inches minimum and 0.3740 inches maximum. Body inside diameter, 0.2500 inches minimum and 0.2510 inches maximum. Square all corners.

00-272-3582

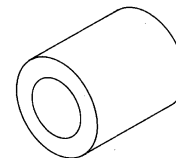
Overall length, 0.3800 inches minimum and 0.3850 inches maximum. Body outside diameter, 0.3735 inches minimum and 0.3740 inches maximum. Body inside diameter, 0.2500 inches minimum and 0.2510 inches maximum. Square all corners. 1 hole anti-rotation/lubrication type and quantity. Hole diameter, 0.0780 inches minimum and 0.0830 inches maximum.

00-316-7210

17C Solid Style

	O/A Lg	Body OD	Body ID
00-051-9758	0.0960	0.3105	0.1915
00-517-8432	0.1537	0.3133	0.1907
01-163-5201	0.1875	0.3746	0.2503
00-829-9857	0.2163	0.3768	0.2442
00-810-1966	0.2375	0.4383	0.3035
00-241-6805	0.2500	0.3762	0.2500
00-580-9979	0.2675	0.3758	0.2405
00-943-8266	0.2675	0.4383	0.3035
01-040-3438	0.3195	0.4356	0.2502
00-516-2434	0.3412	0.3758	0.2507

	O/A Lg	Body OD	Body ID
01-263-8539	0.3725	0.4376	0.3132
01-264-0017	0.3725	0.5006	0.3757
01-165-7660	0.3725	0.3768	0.2442
01-386-5318	0.3750	0.4396	0.3670
00-585-1488	0.4037	0.5009	0.3757
00-661-6979	0.4350	0.4383	0.3132
00-917-7430	0.4350	0.8137	0.6257
01-163-7389	0.4355	0.4240	0.3020
01-164-6282	0.4355	0.4340	0.3020
00-624-5248	0.4690	1.0302	0.8885
01-235-1702	0.4940	0.6264	0.5005
00-516-0906	0.4975	0.8137	0.6257
00-830-1038	0.5287	0.6261	0.5007
00-516-1869	0.5600	0.5009	0.3757
01-188-1754	0.5600	0.3768	0.2442
01-131-7637	0.5695	0.9987	0.7505
01-171-5932	0.5695	0.4981	0.3127
00-066-8363	0.5695	0.4350	0.2502
00-946-5318	0.5810	0.7497	0.6252
00-661-7380	0.5912	0.6261	0.5007
00-944-7588	0.6225	0.6261	0.5007
00-854-7122	0.6300	0.4975	0.3120
01-173-3745	0.7110	1.2492	1.1252
00-516-2421	0.7162	0.3758	0.2057
00-838-8588	0.7163	0.5634	0.4382
00-516-2418	0.7475	0.6261	0.5007
01-180-8999	0.7600	0.8113	0.7355
00-905-3206	0.7787	0.5634	0.4382
00-051-9757	0.7788	0.6261	0.5007
00-807-9337	0.8413	0.6261	0.5007
01-167-7765	0.8413	0.3133	0.1907
00-944-7566	0.8413	0.5634	0.4382
00-965-7206	0.8725	0.5634	0.4382
01-235-7616	0.9130	0.9388	0.7507
00-066-8367	0.9445	0.6225	0.4377
00-066-8329	0.9663	0.5634	0.4382
00-947-4397	1.0075	0.4350	0.2502



Steel composition 8630 or Steel composition 4130 overall. with Cadmium surface treatment overall. 17C solid style. Overall length 0.1512 inches minimum and 0.1562 inches maximum. Body outside diameter 0.5006 inches minimum and 0.5013 inches maximum. Body inside diameter 0.3770 inches minimum and 0.3790 inches maximum.

00-015-7793

Aluminum Alloy 2024 overall. Anodized surface treatment overall. 17C solid style. Overall length 0.6500 inches nominal.

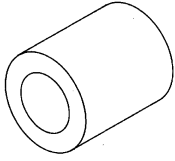
00-241-9060

Overall length 0.1280 inches minimum and 0.1460 inches maximum. Body inside diameter 1.0237 inches minimum and 1.0247 inches maximum. Flange outside diameter 1.4830 inches minimum and 1.4950 inches maximum. Flange width 0.0230 inches minimum and 0.0260 inches maximum. Bushing, glass packed.

01-119-8807

Copper alloy overall, style 17C solid. Overall length 0.3700 inches minimum, 0.3800 inches maximum. Body outside diameter 0.7510 inches minimum, 0.7520 inches maximum. Body inside diameter 0.6349 inches minimum, 0.6360 inches maximum. All corners square.

# CLASS 3120



01-089-2601

Copper alloy overall, style 17C solid. Overall length 0.8700 inches minimum, 0.8800 inches maximum. Body outside diameter 0.9375 inches minimum, 0.9385 inches maximum. Body inside diameter 0.7514 inches minimum, 0.7525 inches maximum. All corners square.

01-089-3772

Copper alloy overall. Style 17C solid. All corners square.

	O/A Lg	Body OD	Body ID
01-106-6754	0.3750	0.9385	0.7380
01-213-9542	0.5280	0.8110	0.4370

## ROLLER, LINEAR-ROTARY MOTION

Steel

R1 plain style

Anodized surface treatment. No rating for metallic hardness. Not casehardened. Outside diameter, 0.840 inches nominal. Face width, 0.938 inches nominal. Bore inside diameter, 0.437 inches nominal. Chamfer/radius of outside corner, 0.030 inch radius.

01-140-3695

Metallic hardness rating 34.0 minimum Rockwell C and 38.0 maximum Rockwell C. Not case-hardened. Outside diameter 0.469 inches nominal. Face width 0.750 inches nominal.

00-023-9263

Plastic Turcite LAC-22-1142 TY A 25220. Not case-hardened. Outside diameter, 1.045 inches nominal. Bore length, 0.900 inches nominal. Face width, 0.810 inches nominal. Bore inside diameter, 0.378 inches minimum and 0.381 inches maximum.

00-879-4882

R9 Plain Counterbored style

Plastic PLT-1. Not case-hardened. No rating on metallic hardness. R9 Plain, counterbored style. Counterbore diameter, 0.700 inches nominal. Counterbore depth, 0.190 inches nominal. Outside diameter, 1.125 inches nominal. Face width, 0.812 inches nominal. Bore inside diameter, 0.313 inches nominal. Chamfer radius of outside corner, 0.562 inch radius.

00-886-1321

Plastic, Nylon Resin/Zytel. Not case-hardened. Counterbore diameter, 0.550 inches minimum and 0.570 inches maximum. Counterbore depth, 0.909 inches minimum and 0.130 inches maximum. Outside diameter, 0.790 inches minimum and 0.810 inches maximum. Face width, 0.430 inches minimum and 0.450 inches maximum. Bore inside diameter, 0.262 inches minimum and 0.269 inches maximum. Chamfer/radius of outside corner 0.060 inch radius. Special features, 63 UIN AA Bore, all other surfaces 125 UIN AA.

00-967-1798

## CLASS 3130

### BEARINGS, MOUNTED

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.**

#### BEARING UNIT, BALL

Iron cast housing, steel seal. Bore diameter 1.1875 inches nominal. Style A16 pillow block, solid. Base thickness 0.6875 inches nominal. Center to center distance between mounting holes along width 4.7500 inches nominal. Assembly overall length 2.1250 inches nominal. Height from bottom of base to bore centerline 1.5625 inches nominal. Mounting hole slotted. Lubrication fitting pipe plug, grease for lubrication. Internal fit-up standard, 1 rolling element groove, self-aligning, fixed block open shaft end. Labyrinth seal type both ends. Collar on one end, radial load capability.

	Housing H/In.	Housing W/In.	Base Lg/In.	Mtg Slot W/In.	Mtg Slot Lg/In.
00-190-9359	3.1562	6.3125	1.8750	0.5625	0.7500

Iron cast housing, rubber synthetic seal. Bore diameter 1.1875 inches nominal. Style A16 pillow block, solid. Base thickness 0.470 inches nominal. Center to center distance between mounting holes along width 3.780 inches nominal. Assembly overall length 1.340 inches nominal. Height from bottom of base to bore centerline 1.250 inches nominal. Mounting hole slotted. Lubrication fitting pipe plug, grease for lubrication. Internal fit-up standard, 2 rolling element grooves, self-aligning, fixed block open shaft end. Contact seal type both ends. Radial load capability.

	Housing H/In.	Housing W/In.	Base Lg/In.	Mtg Slot W/In.	Mtg Slot Lg
01-463-7300	2.500	5.000	1.340	0.440	0.780



# GROUP 34 METALWORKING MACHINERY

## CLASS 3433 GAS WELDING, HEAT CUTTING, AND METALIZING EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BRAZING AND SOLDERING SET

Acetylene and Air-Burning Kits. Suitable for light brazing, soldering, heating, and burning. Steel carrying case contains: a torch handle; fine, small, medium, and large torch stems; a soldering iron stem with pyramid-pointed soldering tip; a 6 foot 3/16 inch diameter fitted hose assembly with two tank unions; and a "B" tank (40 cubic inch) pressure regulator.

KIT WITH STANDARD TORCH HANDLE (NO SHUT-OFF VALVE).

00-255-9333

KIT WITH PRECISION TORCH HANDLE (WITH NEEDLE VALVE). Reference Number 30 by 60.

00-027-1364

### COLLET, WELDING TORCH

Used with welding torch collet body, to retain an electrode in a gas shielded arc welding torch. .062 inch electrode diameter.

00-953-6440

### CUTTING ATTACHMENT, WELDING TORCH

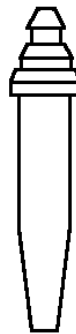
90 degree head angle. Hand operated, forged type, 10-1/2 inch length, 7 inch cutting capacity. Use tip size 3. Used with Victor model 315 welding torch.

00-275-1231

### TIP, CUTTING TORCH

Oxyacetylene cutting tips. Copper or tellurium-copper. For use with standard cutting

torches. Tip number indicates drill size of cutting and preheat orifices, respectively. Cutting range is for straight edge cutting of medium Steel.



1/8 inch to 1/2 inch cutting range. With 4 preheats.

Size  
 00-964-0264 1-62-64

1 inch to 2-1/2 inch cutting range. With 4 preheats.

Size  
 00-964-0262 3-52-59

### TORCH BODY, WELDING

MEDIUM DUTY. With oxygen and fuel valves. B type hose connections, 9/16 - 18 thread. 8-1/2 inch length overall. Used with Victor model 100 torch.

00-391-1220

### TORCH, CUTTING

Standard Hand type Oxyacetylene Cutting

Torch. 90 degree head angle. Approximately 21 inches in length.



00-273-2552

### TORCH, WELDING

Hand Type Oxyacetylene Welding Torches. Designed for welding, brazing, heating, etc. Complete with: wrench, male hose connections, and welding tips (suitable for welding work up to thickness specified below). Hose connection size shown.

LIGHTWEIGHT, TYPE AB.

Welds steel up to and including 1/4 inch thick.

00-255-9332 3/8-24 RH/Thd

# CLASS 3433

## TORCH OUTFIT, CUTTING AND WELDING

Emergency Oxyacetylene Cutting Outfit. Canvas pack type. For damage control and other emergency cutting. Complete pack stowed in a steel cabinet. Replacement cylinder cradle stowed in a separate Steel cabinet. Outfit components and spare parts supplied, as per NAVSEA Drawings S9200-606943 through -606946.

**NOTE: CYLINDERS AND GASES ARE NOT FURNISHED. ORDER SEPARATELY UNDER FOLLOWING STOCK NUMBERS:**

1-cylinder, acetylene gas.  
8120-00-285-4733

10 cubic feet acetylene gas.  
6830-00-286-5434

1-cylinder, oxygen gas tech.  
8120-00-285-1576

24.3 cubic feet oxygen gas tech.  
6830-00-577-4228





# CLASS 3439

## MISCELLANEOUS WELDING, SOLDERING, AND BRAZING SUPPLIES, AND ACCESSORIES

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BAFFLE, SOLDER EXTRACTOR

Used for removing solder. S-shaped sheet metal. 2.625 inch length by 0.375 inch width by 0.03 inch thick.

00-248-5263

### BLADE, SOLDERING UNIT

Steel, U-shaped. 1.125 inch length. Miniature soldering system.

00-417-7258

### BRAZING ALLOY, COPPER

COPPER-BASE FILLER METALS. 36 inch length rods, diameter as noted.

Copper-Phosphorous Rod. Class: (FS BCuP-2) For brazing Copper and Copper Alloys. DO NOT USE ON FERROUS METALS. Brazing range, 1350 to 1550 degrees Fahrenheit. Diameter listed in inches.

### BRAZING ALLOY, SILVER

SILVER-BASE filler metals. Grade and ASTM class, if applicable, as indicated. Size and form as noted.

Grade 1 (ASTM Class BAg-5). For general Silver soldering requirements including, the soldering of turbine blades. Brazing range 1370 to 1550 degrees Fahrenheit.

	W/In.	Thk/In.	Lg/In.
01-063-7414	0.062	.050	.20
00-262-4182	0.030	-	4272.
00-881-0049*	0.945	-	.078

\* Ring

Grade 4 (ASTM Class BAg-1a). General purpose alloy for brazing assemblies of, Mild alloy, Tool, Stainless Steels, Copper, Nickel, and dissimilar combinations of these metals. Brazing range 1175 to 1400 degrees Fahrenheit.

	Dia/In.	Lg/In.
00-528-3882	0.031	A/A
00-262-4190	0.125	A/A

Grade 5 (ASTM Class BAg 5). Used for the same applications as Grade 4, but for poor fit up and the production of fillets. For the brazing of Carbide tool tips and other high Tungsten Alloys. Brazing range 1270 to 1500 degrees Fahrenheit.

### WIRE

	Dia/In.	Lg/Ft
00-262-4192	0.188	A/A

### STRIP

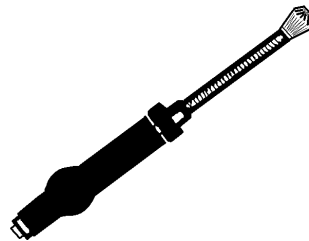
### CLEANER SET, WELDING AND CUTTING TIPS

Cleans slag and splatter from gas orifices. Set of 21 Stainless Steel wire drills, sizes from .021 inch to .128 inch diameter. Assembled in consecutive order in an Aluminum Alloy carrying case.

00-270-6047 Labeled A to V

### DESOLDERING TOOL

Adjustable vacuum pick-up action, spring loaded power source.



00-132-1331

### DESOLDERING TOOL, ELECTRIC

Tip heated element; 40 Watts, 120 Volts AC, cylindrical handle, threaded end mounting. Includes: 1 tip cleaner, 1 hexagon-wrench, soldering iron stand, 3-cord plug adapter, and 7 straight conical tips. With carrying case.

Tip Size	NSN
038	00-910-2554
046	00-910-2553
059	01-003-4178
063	00-910-2551
078	00-910-2550
090	00-910-2549

Straight handle. Head heating element with thermostatic control. 115V, 575W AC. Furnished with extra tips, air line, power cord, and cleaning brush.

00-808-2144

### DESOLDERING WICK

Desoldering wick of woven untinned Copper braid. Rosin coated strands on spool.

	W/In.	Lg/Ft
00-545-3396	.028 to .032	5
00-426-0392	.046 to .050	5
00-403-5321*	.062	6
01-324-8208	.060	5
00-009-2334	.075 to .078	5
00-372-3480	.095 to .125	5

\* Tinned

### DISPENSER, FLUX SOLDER

Design Control Reference Number 613.

00-552-9309 6 oz container

### ELECTRODE

A material which acts as a terminal, through which an electric current enters or leaves a liquid or gas. Item does not provide filler material or act as a lighting media.

	Dia/In.	Lg/In.
00-132-6708	.063	12

### ELECTRODE, CUTTING, SOLID

DC Carbon-graphite, Type Mil-CuC. Copper-coated electrodes for use in the Carbon-arc compressed air cutting and gouging process. 50 per box. 12 inch lengths.

	Dia/In.
00-900-2856	.312
00-288-4048	.375

### ELECTRODE, RESISTANCE HEATING, SOLDERING AND BRAZING

An electric current carrying item which is held in a holder. Designed to raise metal temperature by resistance heating, at "point of contact" of the item and the metal. CRES filler. 3 per package.

01-037-5773 .040 In. Dia x A/A Lg

### ELECTRODE, WELDING

Aluminum Alloy welding wire. Bright, clean wire for use with semi-automatic and machine gas metal-arc (consumable electrode), welding process. DC, reverse polarity.

# CLASS 3439

## Bare Types

Type EWP, clean finish.

	Dia./In.	Weld Position	Spool Wt/Lb
00-872-1411	0.040	All	7
00-105-9948	0.125	All	7

Flux-Covered for Shielded.

## Metal-Arc Welding

Aluminum and Aluminum Alloy fillers. DC, reverse polarity. Horizontal fillets and flat positions.

Type 4043. For general welding of Aluminum and its alloys.

	Dia./In.	Weld Position	Lg./In.
00-262-2597	0.094	All	14

Copper-Nickel (70/30) Alloy, filler type Mil-CuNi. Electrodes. For fabrication and repair welding of Copper-Nickel Alloy tubing, or plates and shapes. DC, reverse polarity.

	Dia./In.	Weld Position	Lg./In.
00-878-2882	0.094	All	12

Type 6010. All positions. DC, reverse polarity only. Deep penetration. Very sound X-ray quality. Single and multiple pass welds on uncoated Carbon, and Low Alloy Steel plates, shapes, and castings.

	Dia./In.	Weld Position	Lg./In.
00-262-2652	0.094	All	12

Type 6013. AC or DC, reverse polarity. Shallow penetration, more suitable for welding light sheet metal.

	Dia./In.	Weld Position	Lg./In.
01-039-3494*†	0.094	All	12
00-165-4186*	0.125	All	14

\* AC/DC

† Vanadium filler

AC or DC, reverse polarity.

	Dia./In.	Weld Position	Lg./In.
00-465-1908	0.125	All	14
00-465-1907	0.094	All	14
00-878-2158	0.188	All	14

AC/DC, straight or reverse polarity. Note: "Not For Shipboard Use".

	Dia./In.	Weld Position	Lg./In.
00-460-7651	0.094	All	9
00-460-7650	0.125	All	14

Type 309-15. Straight form. Steel corrosion resistant. Round shape. Reverse polarity.

	Dia./In.	Weld Position	Lg./In.
00-460-7642	0.094	All	9
00-460-7641	0.125	All	14

For same applications as Type Mil-310-15, but can be used with AC or DC, reverse polarity.

	Dia./In.	Weld Position	Lg./In.
00-460-7660	0.094	All	9

## ELEMENT, SOLDER REFLOW

For: American Beauty model 105142, handle.

01-045-0316 Short element

## FLUX, BRAZING

Aluminum Alloy. For brazing light metals, their alloys, and Aluminum Bronze.

00-913-4750 8 oz jar paste

Brass, Bronze, Copper, and Steel. Paste form.

00-914-8390 16 oz jar

## FLUX, SOLDERING

Liquid Flux. For use with Aluminum, Silver, and Lead Tin Alloys. Corrosion resistant.

	Size	Type Flux
00-069-5815	1 qt plastic bottle	RMA

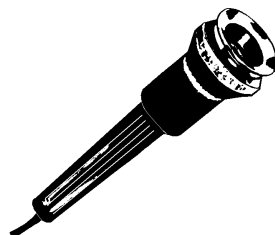
Noncorrosive. For use with Lead and Tin-Lead Alloy solders, and on all common metals, except Aluminum.

## PASTE SOFT-SOLDER FLUX

01-069-9176 1 qt can

## HANDLE, ELECTRIC SOLDERING IRON

Pencil type handle for electronic work. Full length insulated cord and plug connector. 115 V AC-DC.



00-631-6821

## HANDLE, SOLDER REFLOW

Element P/N 105143, supplied with tool. American Beauty models: 105-A3, 105-A3T, 105-A5, 105-A7 power units.

01-045-0317

## HANDLE, TORCH

Fits: Victor model 300 series welding torch.

01-050-0794 9 in. lg

## HEAT GUN

Designed for 1/2 Inch or smaller tubing, and single conductors up to 18 gauge, 3/8 Inch diameter nozzle. Weight 13 ounces.

01-037-7268

## HEATING ELEMENT, WIRE STRIPPER

Wire Stripper Heating Element. With flattened cross section.



01-037-2495

## HEATING UNIT, ELECTRIC SOLDERING IRON

Screw-in heating unit. Rated 110-120V, AC/DC. One end with 0.465 inch diameter candelabra screw, for attaching to handles. Ungar Mod 776 and 777 or equal.



	Watts
00-337-6466	23 (600 to 650 deg F)
00-317-2732	33 (Temp 800 deg F)
00-827-3937	50

## HOLDER, ELECTRODE, WELDING

Fully insulated manual holders. Non-submersible. Designed for metallic filler type electrodes.



150 AMP

	Lg./In.	Dia./In.
00-603-8081	7	—

300 AMP

	Lg./In.	Dia./In.
00-238-1638	A/A	0.094 to 0.250
00-880-1316	8-3/4	.250

500 AMP

	Lg./In.	Dia./In.
00-266-9565	10-1/2	0.125 to 0.313

## HOLDER, SOLDERING IRON

Wire guard. Protects user from burns and prevents damage to pencil irons. Attaches easily to top or underside of bench, or to wall, adjustable angle.

00-045-6527

## ROD, WELDING

Class 4043. Silicone-Aluminum rod designed to weld 5052 and 6063 alloys, and Cast Aluminum alloys by the gas welding process. Also used for brazing 1100 and 3003 alloys (with brazing flux), and as a filler metal in inert Gas-Tungsten arc welding.

	Dia/In.
00-254-5033	0.187

Type RCuS1-A.

	Dia/In.
00-246-0565	0.094
00-246-0566	0.125

Electrode has high Silicone content.

Used to make multiple pass welds in semi-filled and filled Steels. 36 inch length.

	Dia/In.
00-900-8737	0.062

Stainless Steel . Bare Chromium-Nickel rods. For Inert-Gas metal arc and Gas Tungsten-arc welding of types; 301, 302, 304, 305, and 308 Stainless Steels, Stainless clad Steel, and overlays on Mild Steels, 36 inch length.

## SOLDER EXTRACTOR, TIP

Copper Alloy solder extractor tip for removing solder. Rock Island Arsenal Drawing Number 12000647-23.

00-134-9201	.030 inch tip dia by 1.062 inch length
-------------	--

## SOLDER COMPOSITIONS

SOFT SOLDER. Types, Composition, size and unit quantity as shown.

Ag-5.5 composition, 5.5 Silver/remainder Lead. Develops a shearing strength of 1500 PSI at 177 degrees Celsius.

Sb-5 composition, 94% Tin, 5% Antimony. For electrical or electronic connections subjected to peak temperatures of approximately 240 degrees Celsius, and for sweating Copper tube joints in refrigeration equipment.

Sn-35 composition, 35% Tin, 65% Lead. Wiping or plumbers solder. Higher antimony content in wiping solder promotes fine grain and greater strength.

Sn-40 composition, 40% Tin, 60% Lead. Frequently used for dip soldering as a wiping solder. Can be used for the same purposes as

Sn-50, but is not workable in "bit" soldering or sweating.

Sn-50 composition, 50% Tin, 50% Lead. The "half-and-half" solder for use in "bit" soldering and sweated joints in plain, Tinned, or Galvanized Iron or Steel, Copper and Copper Alloys, etc., and for use with soldered fittings in Copper water tubing.

Sn-60 composition, 60% Tin, 40% Lead. Has a short melting range and is preferred for soldering electrical or electronic connections and for coating metals.

Sn-63 composition, 63% Tin, 37% Lead. For soldering printed circuits where temperature limitations are critical and in applications where an extremely short melting range is required.

## SOLDER, LEAD ALLOY

TYPE R- ROSIN CORE-Non-activated. For use in soldering joints in critical electrical and electronic equipment.

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-265-7102	.063	1	2.2

TYPE RA ROSIN CORE-activated.

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-057-5167	.094	1	1.1

Composition Sn-40

	Dia/In.	Spool Wt/Lb	Plastic Core %
01-074-9983	.125	1	3.3

## SOLDER, LEAD-TIN ALLOY

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-163-4348	.063	5	3.3

## SOLDER, TIN ALLOY

TYPE RAP ROSIN CORE

Composition Sb-5

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-824-9856	.032	1	3.3
00-770-4262	.050	1	3.3
00-269-9610	.063	1	3.3

Composition Sn-63

	Dia/In.	Spool Wt/Lb	Plastic Core %
01-008-7580	.015	1/2	3.3
00-702-4067	.020	1	2.2
01-008-7577	.028	1	3.3

	Dia/In.	Spool Wt/Lb	Plastic Core %
01-008-7578	.036	1	3.3
00-473-2000	.063	1	3.3
01-146-6953	.090	1	3.3

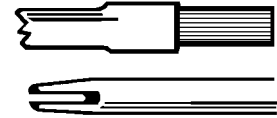
TYPE-S-SOLID METAL CORE (NO FLUX). For general soldering of all common metals or alloys, except Aluminum and Magnesium.

Composition Sn-50

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-555-4629	.031	1	2.2

## SOLDERING AID TOOL

Soldering tools with hexagonal handle. 8 inch length. Brush and forked tip. Heavy duty Stainless Steel brush for cleaning wire and terminals before soldering, forked tip for twisting and holding wires.



00-611-7136

Brush and scraper tip. Fine Stainless Steel brush and hardened Steel scraper for printed circuit repair work.



00-767-9126

Straight reamer and forked tip. Standard type. Chrome Plated Steel reamer tip for cleaning out lug holes, forked tip for twisting or holding wires. Wood handle.



00-629-2697

## SOLDERING AND BRAZING OUTFIT, RESISTANCE HEATING

Includes: electric soldering pencil, case assembly, transformer, desoldering pencil rest and holder, 7 soldering tips, conformal coating stripping tip, wire stripping tip, dual in-line tip, flat pack tip, and 6 desoldering tips. AC current.

00-460-7198

# CLASS 3439

## SOLDERING GUN

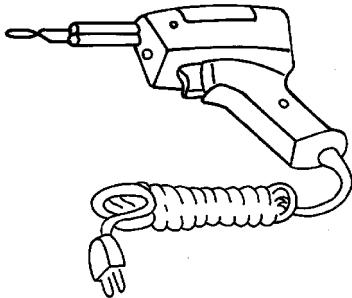
Dual-heat transformer type, trigger-operated. With built-in spotlight, power cord, and plug connector. 115V, 60 Hz, AC.



Medium Duty. 3-Conductor Cord.

Watts  
00-542-0396 145/210

Heavy Duty 3-Conductor Cord.



Watts  
00-618-6623 240/325

## SOLDERING IRON, CORDLESS, ELECTRIC

Cordless, Electric Soldering Iron. Battery operated with plug-in recharger or recharging stand, 700 degrees Fahrenheit tip temperature rating, with batteries, complete unit UL approved.

00-264-9573  
01-045-1817\*  
\* Not UL Approved.

## SOLDERING IRON, ELECTRIC

Controlled Temperature Soldering Iron. 6 volt AC, 25 watts. Supplied With: thermostatic control, transformer and two soldering tips, one chisel and one conical shaped. 6 foot long cord. Tip sizes 1/8 and 1/4 inch.

### NOT FOR SHIPBOARD USE

00-627-0500

Uncontrolled Temperature Soldering Iron. 115 volt AC/DC. Maximum tip temperature 850 degrees Fahrenheit. Complete with: 6 foot power cord, plug connector, rest stand, and one straight Copper tip. Tip diameter, shape, and heat power rating shown.

Standard type with coupling nut. With 3

conductor cord, screwdriver tip.

Watts  
00-019-4384\* 60  
\* Non Spec Item

Standard type with set screw mounting.

	Tip/In.	Watts
00-204-3859	3/8 pyramid	A/A
00-204-3858	5/8 pyramid	A/A

Pencil type



With 3 conductor cord.

Plug in tip.

	Tip/In.	Watts
00-851-7021*	1/8 pyramid	50
00-204-3856	1/8 pyramid	2 tips
* 2-conductor power cord and plug connector.		

Screw in tip

00-542-0454	3 pyramid tips, 1/8 & 5/16 Inch and 30x Bent pyramid	
00-346-7538	1 Tip, 1/8 Inch Dia pyramid	

Non Spec Item

120 volt AC, 25 watts. Thermostatically controlled. 1/8 inch diameter. Round with pointed tip. Weight 1/4 pound.

00-134-9202

## SOLDERING PENCIL, ELECTRIC

Single Copper Alloy electrode. 60 inch lead length. 1/4 inch electrode diameter.

00-204-3855

## SOLDERING STATION

Cylindrical handle with removable screwdriver tip. 3 wire plug. 120 volt AC, 60 Hz. Thermostatic control. Three digit "LED" readout, displaying temperature settings, and tip temperatures. With a resolution and set ability of 1 degree Fahrenheit.

01-183-4632

## SPONGE AND TRAY, TIP CLEANER

Designed to fasten to work bench.

00-907-8076

## TIP, DESOLDERING, SUCTION DEVICE

Vacuum solder removal type. PACE Model XX-200.

	Tip OD
01-138-7539	.250
01-057-1002	.053
01-078-8351	.104

EDSYN models, DS017, SS011, LTS13.

	Tip OD
00-403-2087	.062

## TIP, ELECTRIC SOLDERING GUN

Copper replacement tips. Bushing nut mounted. Manufacturer point shape shown.

LOOP TYPE. For use with Welder gun models S400, D400, and 8200. 2.562 inch length by .531 inch width by .082 inch diameter.

00-540-8998 7135 wedge point

BENT PYRAMID TYPE. For use with Welder gun, coupling nut mounted, Copper alloy.

01-007-9167 No. 1 wedge

## TIP, ELECTRIC SOLDERING IRON

SOLDERING TIPS. Copper Alloy soldering tips. Designed to fit Ungar heating units No: 1235, 4035, 4045.

### PRESS-FIT MOUNTING

Round needle

	Mtg End/Dia	Tip W
00-149-8196	.125	.015

Copper-Alloy soldering tip designed to fit PACE Inc. heating units. Press fit. Overall length 2.125 inches, tip length .500 inch, mounting end diameter 0.125 inch, tip width .062 inch.

Round chisel

00-149-8197

Soldering tip designed to fit WAHL-CLIPPER units, set screw mounting method, mounting end diameter 0.187 inch.

Round conical

	Tip Dia	O/A Lg	Tip Lg
00-264-5807	.062	.750	.562
00-264-5818	.157	.625	.375

### PLUG-IN MOUNTING METHOD, LOOP TYPE

Copper

Round chisel

	Tip Dia	Tip Lg	Tip W
00-808-1581*	.125	2.250	.125

\* With set screw

Steel

Round offset flat (90 degree bent angle).

	Tip Dia	Tip Lg	Tip W
00-149-8201	.094	.156	.250

Copper and Iron Alloy Beveled. Sensor rated.

Round screwdriver

	Tip Dia	Tip Lg
00-234-9709*	.062	.625

\* Sensor rated at 700 degrees.

Ungar Tip, Series 300.

Ungar No. 1235 and 4035 or equal. Threaded end. Tip shape and number shown below. Tip number prefixed with PL indicate, Silver Plating.

### SCREW-IN MOUNTING

Round chisel

	Thread Size	Tip W
00-801-0952	6-32	.135
01-079-2822	1/4-28	.062
00-943-1676	1/4-18	.125
01-078-6125*	1/4-18	.125

\* Accordance with SPCC HX Quality control.

Round tapered needle

	Thread Size	Tip W
00-801-0953	6-32	.050

Round bevel

	Thread Size	Tip W
00-972-0874*	6-32	.046
00-781-6390	1/4-28	.046

\* .125 inch diameter thread.

Round conical

	Thread Size	Tip W
00-827-5445	6-32	.135
00-900-1685	1/4-28	.125

Round offset conical (30 degree angle)

	Thread Size	Tip W
00-835-1646	6-32	.135

## TIP, RESISTANCE SOLDERING

Stainless Steel .078 inch diameter 1-1/2 inch length. 6 per package. For use with American Beauty model 10541.

01-044-5749

## TIP, SOLDER EXTRACTOR

Used with Pace model SX-200 solder extractor or equal.

	ID/In.
00-149-8186	.036

## TWEEZER, RESISTANCE SOLDERING

Tweezer type hand piece, for soldering 22 gauge wire and finer.

01-028-7145



## CLASS 3441 BENDING AND FORMING MACHINES

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### EXPANDER, TUBE

Self-feeding type tube expander. Adjustable design without guard ring. Three tapered roller type expanders. One piece heads. Flexible tip not included. Expander tube outside diameter (OD) and wall thickness (Wall Thk), along with the tube sheet maximum thickness (Max Thk) is indicated in inches.



#### ROUND HEADS

	Expander tube		Tube sheet
	OD	Wall Thk	Max Thk
00-250-8748	1/4	.028	.500
00-250-8750	1/4	.035	.500
00-250-8751	3/8	.035	.750
00-250-8749	3/8	.049	.750

#### MORSE TAPER HEADS

	Expander tube		Tube sheet
	OD	Wall Thk	Max Thk
00-176-7912	5/8	.049	1.250
00-176-7911	5/8	.065	1.250
00-176-7913	3/4	.049	1.250
00-176-7910	3/4	.065	1.250

#### SQUARE HEADS

	Eff/Lg	Thk
01-122-4471	1.000	.250
01-017-8590	1.000	1.000
01-031-9694	1.500	1.500
01-018-2127	1.000	3.500





# CLASS 3455

## CUTTING TOOLS FOR MACHINE TOOLS

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### BLADE, BAND SAW

Metal cutting band saw blades. Welded hard edge Carbon Steel. Blade width, thickness, and teeth per inch (TPI) as shown.

	W/In.	Thk/In.	TPI
00-277-6674	3/4	.032	3
00-277-6675	1	.035	2



### FLEXIBLE BACK DESIGN

CONVENTIONAL TOOTH TYPE. Raker tooth set. Blades of 1/4 to 1 inch widths, inclusive, are adapted for contour cutting. All sizes are used in cutting ferrous, hard nonferrous metals, plastics, and hardwood.

WELDED COMPOSITE, HIGH SPEED EDGE.  
 Raker tooth set. 12 foot length, claw tooth.

	W/In.	Thk/In.	TPI
01-008-7639*	1-1/4	.042	6
* 14.5 ft lg			

FITS ARBOR STYLE V AND W



Coiled length, 100 feet.

	W/In.	Thk/In.	TPI
00-278-0924	1/4	.025	10
00-277-3549	1/4	.025	18
00-277-3550	1/4	.025	24
00-277-3555	1/2	.025	6
00-277-3556	1/2	.025	10
00-224-3596	1/2	.025	14
00-277-3557	1/2	.025	18
00-517-5734	3/4	.032	10
00-517-5805	3/4	.032	14
00-277-3566	1	.035	6
01-209-6553*	1	.035	6
00-277-3568	1		10

\* Joined length 11 feet, high speed Steel.

Joined length 14.667 feet.

	W/In.	Thk/In.	TPI
01-099-2285	3/4	.032	6
01-099-2286	3/4	.032	8
00-988-2894	3/4	.032	10
00-988-2895	3/4	.032	12
01-099-2287	3/4	.032	18

SKIP TOOTH TYPE. Skip tooth blades have more chip clearance and are suitable for cutting the softer nonferrous metal, wood, fiber, Plastic, and builder's board. Teeth set in accordance with usual commercial practice.



Coiled length, 100 feet.

	W/In.	Thk/In.	TPI
00-277-6671	3/8	.025	4
00-277-6673	1/2	.025	4

ALL HARD, Raker tooth set. Joined length 14.667 feet.

	W/In.	Thk/In.	TPI
01-100-3023	3/4	.032	6
01-099-2288	3/4	.032	8
01-099-2289	3/4	.032	10
01-099-2290	3/4	.032	12
01-099-2291	3/4	.032	14
01-099-2292	3/4	.032	18
00-284-0132*	1	.035	4
01-023-0241†	1	.035	8
01-181-8792‡	1-1/4	.042	4

\* Joined length 12 feet.

† 14.5 foot length.

‡ 15.5 foot length.

### SPRING TEMPERED DESIGN

Cuts material 5/32 to 1/2 inch thick. Joined length 3.75 feet.

	W/In.	Thk/In.	TPI
01-142-6231	1/2	.020	14

Cuts material 3/16 to 3-3/8 inches thick. Joined length 3.75 feet.

	W/In.	Thk/In.	TPI
01-142-6230	1/2	.20	10

### BLADE, CIRCULAR SAW, METAL CUTTING

Combination unit type, keyway not included. Dimensions in inches.

	Dia/In.	Rim Thk	Arbor Hole Dia/In.
01-082-2548	10	.125	.750

### BLADE, HOLE SAW

High speed Steel, welded edge hole saws. 6 teeth per inch. 1-1/8 inch cutting depth. Cuts clean, round holes in Steel, Brass, Cast Iron, Aluminum, Plastics, wood, etc. WITHOUT ARBOR. Saw diameter size shown.

	Dia/In.
00-335-3036	5/8
00-335-3037	3/4
00-335-3038	7/8
00-335-3039	1
00-335-3040	1-1/16
00-335-3041	1-1/8

FITS ARBOR STYLE X AND Y

	Dia/In.
00-335-3042	1-1/4
00-335-3043	1-3/8
00-335-3044	1-1/2
00-335-3045	1-5/8
00-335-3046	1-3/4
00-335-3047	1-7/8
00-187-2628	2
00-187-2629	2-1/16
00-187-2630	2-1/8
00-187-2631	2-1/4
00-187-2632	2-3/8
00-187-2633	2-1/2
00-222-4144	2-3/4

FITS ARBOR STYLE X, Y, AND Z

	Dia/In.
00-187-2634	3
00-187-2636	3-1/4
00-187-2637	3-1/2

**NOTE: For Hole Saw Arbor see FSC 3460 Arbor, Hole Saw.**

### BLADE, POWER HACKSAW

ALL HARD DESIGN. Extra tough and long-wearing blades for both production work and run-of-the-shop cut-off jobs. 1 inch width by .050 inch thick. Blade length 14 inch. 6 TPI.

00-516-4572

WELDED COMPOSITE HIGH SPEED EDGE. Shatterproof, flexible back blades for heavy feeds, gang sawing, and interrupted cuts. Blade length and TPI shown.

# CLASS 3455

1-1/4 inch width by .062 inch thick.

	Lg/In.	TPI	Dia	Cut Lg	O/A Lg	Thk	W	Lg.	Style		
00-268-9377	14	6	00-222-3792	1/4	5/8	1-11/16	00-554-8700*	3/8	3/8	2-1/2	BR-6
00-268-9378	14	10	00-224-3763	3/8	3/4	1-13/16	00-554-8701	1/2	1/2	3-1/2	BR-8
00-268-9380	17	6	00-224-3767	1/2	15/16	2-1/4	00-554-8702	5/8	5/8	4	BR-10
00-268-9381	17	10	00-224-3771	5/8	1-1/8	2-1/2	* Right Hand turning edge.				
00-268-9382	18	10	00-224-3776	3/4	1-1/4	2-5/8					

1-3/4 inch width by .088 inch thick.

	Lg/In.	TPI	Dia	Cut Lg	O/A Lg	Thk	W	Lg.	Style
00-542-2447	18	6							
00-516-4522	21	6							

## BLADE, THERMAL STRIPPER

Nickel alloy. .500 inch length by .344 inch width.

00-149-8183

## CUTTER, MILLING, END

Straight shank single end mills. With right-hand cut and right-hand helical flutes. High speed Steel. Cut diameter, cut length, and overall length shown in inches below.

2-FLUTE, WITH FLATTED (WELDON) SHANK.



3/8 inch diameter Shank.

	Cut Dia	Cut Lg	O/A Lg
00-618-6007*	1/8	3/8	2-5/16
00-228-5223	1/8	3/8	2-5/16
00-224-3730	3/16	7/16	2-5/16
00-228-5294	1/4	1/2	2-5/16
00-224-3732	5/16	9/16	2-5/16
00-476-0463†	3/8	9/16	2-5/16
00-228-5295‡	3/8	9/16	2-5/16
00-228-5228	7/16	13/16	2-1/2

\* 4 flutes.  
† Center cut.  
‡ Straight shank.

1/2 inch diameter Shank

	Cut Dia	Cut Lg	O/A Lg
00-250-0789	1/2	1	3
00-228-5296*	1/2	1	3
00-228-5297	5/8	1-1/8	3-1/8
00-228-5298	3/4	1-5/16	3-5/16

\* Ball end.

7/8 inch diameter Shank

	Cut Dia	Cut Lg	O/A Lg
00-982-5113	1	1-1/2	3-3/4

4 FLUTES OR MORE, STRAIGHT SHANK. Shank diameter and cut diameter, are the same dimension and are listed under diameter below.



	Dia	Cut Lg	O/A Lg
00-224-3755	1/8	5/16	1-1/4

	Dia	Cut Lg	O/A Lg
00-222-3792	1/4	5/8	1-11/16
00-224-3763	3/8	3/4	1-13/16
00-224-3767	1/2	15/16	2-1/4
00-224-3771	5/8	1-1/8	2-1/2
00-224-3776	3/4	1-1/4	2-5/8

## CUTTER BIT, TOOL HOLDER

HIGH SPEED TOOL, TUNGSTEN, OR MOLYBDENUM STEEL. Ground all sides.

CUTTER BIT BLANK, SQUARE SHAPE.

General Purpose

	Thk/In.	W/In.	Lg/In.
00-272-9773*	3/16	3/16	2-1/2
00-272-9775†	5/16	5/16	2-1/2
00-272-9776	3/8	3/8	3
00-455-5461	1/2	1/2	4
00-272-9778	1/2	1/2	4
00-272-9780†	3/4	3/4	5

\* Tungsten Steel.  
† Molybdenum Steel.

Heavy Duty

	Thk/In.	W/In.	Lg/In.
00-272-9782*	3/16	3/16	2-1/2
00-272-9774*	1/4	1/4	2-1/2
00-516-3162	1/4	1/4	2-1/2
00-272-9784	5/16	5/16	2-1/2
00-272-9785	3/8	3/8	3
00-272-9786*	7/16	7/16	3-1/2
00-272-9787	1/2	1/2	4
00-272-9788	5/8	5/8	4-1/2

\* Tungsten Steel

STRAIGHT CUT-OFF BLADES, BEVELED SHAPE.

General Purpose

	Thk/In.	W/In.	Lg/In.
00-272-9859‡	1/8	3/4	5
00-272-9860†	1/8	7/8	6
00-272-9863*	1/4	1-1/4	7

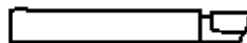
\* Tungsten Steel.  
† Molybdenum Steel.  
‡ Any Acceptable

Heavy Duty

	Thk/In.	W/In.	Lg/In.
00-272-9769	1/8	7/8	6

CARBIDE AND STEEL. General Purpose.

RIGHT HAND TURNING EDGE, 0 Degree Side Cutting Angle. Dimensions shown in inches.



	Thk	W	Lg	Style
00-554-8699	1/4	1/4	2	AR-4

RIGHT HAND SIDE EDGE, 15 Degrees Side Cutting Angle. Dimensions shown in inches.

CARBIDE TIP. Ground body and cutting edge. Dimensions in inches.

Square shape. Threading Edge.

	Sq	Lg
00-019-4328	.625	4

Square Edge

LEFT HAND TURNING EDGE. 0 Degree side cutting.

	Sq.	Lg	Ref No.
00-956-4103	.500	3.5	AL-8-VR75

RIGHT HAND SIDE EDGE. 0 Degree side cutting.

	Sq	Lg	Ref No.
00-996-9654	.312	2.25	AR-5-350
00-996-9656	.375	2.5	AR-6-883
00-019-4234*	.500	3.5	AR-8-370
00-956-4109*	.500	3.5	AR-8-883
01-104-1197	.625	4.0	AR-10-883
00-090-1337*	.625	4.0	AR-10-883
00-019-4233*	.750	4.5	AR-12-370
00-055-2172	.750	4.5	AR-12-K21

\* Right hand turning edge.

RIGHT HAND CORNER EDGE. 15 Degrees side cutting.

	Sq	Lg	Ref No.
00-132-0872	.375	2.5	BR-6-883
00-019-4237*	.500	3.5	BR-8-883
00-132-0871	.750	4.5	BR-12-370

\* Right hand turning edge.

SQUARE NOSE EDGE

	Sq	Lg	Ref No.
00-019-4239	.750	4.5	B212.1

STRAIGHT POINTED NOSE EDGE

	Sq	Lg	Ref No.
00-019-4383	.375	2.5	D-6-350
00-019-4318	.500	3.5	D-8-883

THREADING EDGE

	Sq	Lg	Ref No.
00-132-0870	.375	2.5	E-6-883
00-610-1960	.375	2.5	EL-6-350
00-019-4327	.375	2.5	ER-6-883
00-019-4343	.500	3.5	E-8-370
00-019-4339	.500	3.5	E-8-883

Rectangular shape.

General Purpose

	W/In.	Thk/In.	Lg/In.
01-048-5620	.750	1.250	4.5
01-053-3392	1.250	1	5

## NARROW DOVETAIL NOSE EDGE

	W/In.	Thk/In.	Lg/In.	Ref. No.
00-055-2167	.500	1.0	5.0	CT-121-K21

	Dia/In.	Lg/In.	Cut/In.
01-046-0356	1/8	9/16	Med
01-042-0892	1/4	5/8	Med
00-307-9536	5/16	3/4	Med
00-880-1310*	1/2	1	Med

\* RH spiral fluting without chip breaker.



## FILE, ROTARY

1/4 inch shank diameter. Solid ground teeth on file head. Use with power tools to shape metal, plastic, wood, etc. File head diameter and cutting surface, length in inches. Cut coarseness shown.

Cylindrical Shape, Flat End, without End Cut.



	Dia/In.	Lg/In.	Cut/In.
01-168-8895	1/8	1/2	Med
00-984-3405	3/8	3/4	Med
00-318-7740	1/2	3/4	Med

## CARBIDE CUTTERS

### Ball Shape

	Dia/In.	Lg/In.	Cut/In.
00-021-2410*	1/8	1/8	Med
01-041-6792	3/16	3/16	Med
01-046-0355	3/16	3/16	Med
01-041-5028	1/4	1/4	Med
01-045-9154	1/4	1/4	Med
01-033-6395	3/4	3/4	Med
00-224-8925	3/4	3/4	Med

\* Tungsten.

### Flame Shape



	Dia/In.	Lg/In.	Cut/In.
00-320-9832	5/16	3/4	Med
00-293-3561	1/2	1	Fine

### Cone Shape



	Dia/In.	Lg/In.	Cut/In.
00-311-6183	1/4	3/4	Med
01-051-1390*	3/8	5/8	Med
01-232-8411	5/8	1-5/16	Course

\* Pointed diamond tooth cut.

## HIGH SPEED STEEL CUTTERS

### Ball Shape



	Dia/In.	Lg/In.	Cut/In.
00-023-4277	1/2	1/2	Med
01-009-6257	1/2	1/2	Med

### Cone Shape with Right Hand Spiral Fluting.

	Dia/In.	Lg/In.	Cut/In.
00-023-4280	1/2	7/8	Med

### Cylindrical Shape, Flat End, Without End Cut.

	Dia/In.	Lg/In.	Cut/In.
00-892-4677	1/2	1	Med

### Cylindrical Shape, Ball Nose.

	Dia/In.	Lg/In.	Cut/In.
00-023-4276	1/2	1	Med

### Cone Shape, Radius End. 14 Degree Cone Angle.



### Tapered Shape

	Dia/In.	Lg/In.	Cut/In.
00-293-3560	1/4	1/2	Fine

### Tree Shape, Pointed End.



	Dia/In.	Lg/In.	Cut/In.
01-050-7870*	1/4	5/8	Med
00-320-9847†	5/16	7/8	Med
00-311-6182	3/8	1-1/16	Med
01-232-4837	3/8	1-1/16	Fine
01-232-8410	3/8	1-1/16	Course
00-517-6018	3/8	1-1/8	Med
01-051-1391*	1/2	1-1/8	Med

\* Pointed diamond tooth cut.  
† Double cut fluting.

### Inverted Cone Shape. 34 Degree Angle. Right Hand Spiral Fluting.



	Dia/In.	Lg/In.	Cut/In.
00-023-4281	3/4	5/8	Med

### Oval Shape

	Dia/In.	Lg/In.	Cut/In.
00-516-4368	1/2	3/4	Med
00-224-8924	5/8	1	Med

### Cylindrical Shape, Ball Nose.



### Tree Shape, Radius End.

	Dia/In.	Lg/In.	Cut/In.
00-309-3005	3/8	3/4	Med
01-009-6258*	1/2	1	Med

\* Steel.

### Tree Shape. Pointed End. Right Hand Spiral Fluting.

	Dia/In.	Lg/In.	Cut/In.
00-023-4279	1/2	3/4	Med

### Tree Shape. Radius End.

# CLASS 3455

	Dia/In.	Lg/In.	Cut/In.
00-293-3559	1/2	3/4	Fine
00-023-4278	1/2	1-1/8	Med

Triangular Shape. 60 Degree angle, plain hole mounting.

	Lg/W	Thk	Circle Dia	Point Rad
01-046-7053*	.359	.125	.250	.016
01-026-1387	.344	.125	.250	.031
01-080-6420	.531	.125	.375	.031
01-047-3091	.547	.125	.375	.016
01-041-8434	.719	.188	.375	.031
01-098-6488	—	.188	.500	.016

\* Clamp mounting.

## THREADING FUNCTION

Parallelogram Shape. 60 Deg angle. Clamp mounting.

	Lg/W	Thk
01-291-4386	.344/.219	.150

## TURNING FUNCTION

Parallelogram Shape. 60 Degree angle. Clamp mounting.

	Lg/W	Thk	Circle Dia.	Point Rad
01-300-3148	.634	.344	.195	—
01-051-2566	.634	.344	.195	.005
01-044-3738	.760	.453	.255	—

Triangular Shape. 60 Degree angle. Clamp mounting.

	Thk	Circle Dia	Point Rad
01-046-7064	.125	.375	.015
01-273-7871	.125	.375	.016

## TURNING, BORING, PROFILING FUNCTION

Diamond Shape. 80 Degree angle. Plain hole mounting.

	Lg/W	Thk	Dia	Point Rad
00-401-6176	.719	.188	.500	.031

## INSERT, CUTTING TOOL

Designed for various machine operations, such as boring, cut-off, planing, slotting threading, and turning. Tool has two or more cutting edges. Not designed to be resharpened or reground. Carbide material. Dimensions in inches, given below.

### MILLING FUNCTION

Diamond Shape. 80 Degree angle, plain hole mounting.

	Lg/W	Thk	Circle Dia	Point Rad
01-041-4924	.464	.188	.464	.031
01-274-3720	.500	.188	.500	.016
01-256-3403	.500	.188	.500	—

# CLASS 3456

## CUTTING AND FORMING TOOLS FOR SECONDARY METALWORKING MACHINERY

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BLADE, LOWER, SHEAR CUTTER

Plastic shear, cuts flexible plastics.

01-275-9741

### BLADE, SHEARING MACHINE

Metal upper spare blade, for table shear.

01-271-0742

### BLADE, UPPER, SHEAR CUTTER

Plastic shear, cuts flexible plastics.

01-275-9740

### EXPANDER, TUBE

Carbon Steel, 3 roller, .250 inch square drive.

	OD/In.	Gage/In.
01-365-9308	.375	17

### MANDREL, ROLLER TUBE EXPANDER

Water drum and water screen header mandrel. Hand or power operated, with 0.5 inch square shank. Hand turning rod not included. Approximate size designator .500 inches, except where noted. Length .750 inches. Dimensions "A" and "B" shown in illustration are listed in inches. NAVSEA Drawing S5101-F-1385500.



4.375 inch length overall.

	Dim "A"	Dim "B"
00-640-3259	.515	.624
00-640-3241	.578	.687
00-640-3243	.609	.718

5.375 inch length overall.

	Dim "A"	Dim "B"
00-640-3172	.171	.312
00-640-3174	.203	.344
00-640-3176	.234	.375
00-640-3177	.250	.391

9.875 inch length overall.

	Dim "A"	Dim "B"
00-640-3313*	—	.437
00-640-3314*	—	.452

\* Non Spec Item.



## CLASS 3460 MACHINE TOOL ACCESSORIES

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### ADAPTER, QUICK CHANGE CHUCK

Tellurium Copper Alloy Works with King Nutronics Thermo Unit Model 3604. Design Control reference number shown below. Dimensions shown in inches.

	Lg	OD	ID	Ref No.
01-074-1522	5	1	.258	—
01-108-4713	6	1	.320	21-312
01-108-4714	6	1	.509	21-500
01-108-4715	6	1	.633	21-625
01-108-4716	6	1	.758	21-750
01-108-4717	6	1	.883	21-875
01-108-4718	6	1	.945	21-937

### ARBOR, HOLE SAW

Steel arbor with 1/4 inch high speed pilot drill. Arbor style and size of drive shown below.



Fits 5/8 inch through 1-3/16 inch diameter, hole saws.

	Style	Drive Size/In.
00-293-1737	W	7/16 hex

Fits 1-1/4 inch through 4-1/8 inch diameter, hole saws.

	Style	Drive Size/In.
00-540-1291	X	7/16 hex



Fits 1-1/4 inch through 6 inch diameter, hole saws.

	Style	Drive Size/In.
00-540-1603	Y	5/8 hex

**NOTE: For hole saw blades see FSC 3455 Blade, Hole Saw.**

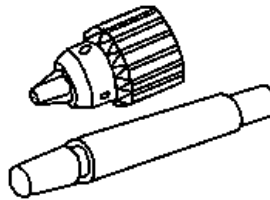
### BLOCK, LAPPING

Single block, 2 inch by 4 inch. Reference number 65-0646.

00-606-7141

### CHUCK, DRILL

3 Jaw Chuck. With tapered shank arbor with tang. Chuck capacity and arbor size shown.



Light Duty, Plain Bearing

	Cap.	No.
00-231-2253	1/2	2 Amer. Std.

Heavy Duty, Ball Bearing

	Cap.	No.
00-268-9218	1/4	1 Amer. Std.
00-268-9219	3/8	2 Amer. Std.
00-268-9220*	1/2	3 Amer. Std.

\* With key.

### CHUCK, ELECTRODE, IONIZER

CRES. Designed to hold 7/16 inch diameter wire. 1-5/16 inch length, 1/4 inch diameter a shank. Used with vent fog precipitator model, 425212.

01-073-5950

### HOLDER, CUTTING TOOL

Cutting tool holder supplied with: 3 straight boring bars; 3/8, 1/2, and 3/4 inch diameter. 6 end caps; 30, 45, and 90 degree. 6 high-speed cutting bits. 3 wrenches.



00-247-7432

### KEY, DRILL CHUCK

Steel. T-handled pinion-type chuck keys. For use with geared drill chucks. Design type, key number, and chuck size accommodation shown.



Heavy Duty

	Type	No.	Size
00-293-1623	Jacobs	777B	1/4
00-264-5577	Jacobs	1	3/8

Light Duty

	Type	No.	Size
00-264-5578	Jacobs	3	1/2

Steel. T-handle, self ejecting. Fits Jacobs and Supreme chucks.

	Jacobs No.	Supreme No.
01-018-4220	633C, 633D	6T33E
01-018-4221	7, 7-1A, 7B	4A, 4B, 4C
01-018-4224	3333C	5T33C, 15T33C

### MANDREL, MACHINE, SOLID

Tapered arbor upon which hollow cylinders are held for turning and facing exterior surfaces. Accommodates 1/8 inch thick wheel. 1/4 inch diameter shank with 3/8 inch pilot. Overall length 1-31/32 inches. Design control reference number 310-0035-2.

00-320-9848

### MANDREL-FLANGE

Cadmium or Zinc plated. 2.750 inch length; diameter 1/2 one end, other end 1/2-20 UNF thread; 1-1/4 hex flange 1-1/4 inch from unthreaded end; one 1/2-20 UNC at hex nut; two discs 1/8 inch thick by 2-1/4 inch diameter with center hole diameter .508 inch; two 16 gage soft steel plates. 2.370 inch overall diameter, .380 inch height, with center hole diameter .515 inch.

00-150-7164

# CLASS 3460

## NIB, DIAMOND, WHEEL DRESSING

1/4 carat industrial diamond mounted on metal bar. 3/8 inch diameter, 2 inch length. For truing, shaping, and dressing abrasive wheels on portable, external, and internal grinders.



00-529-5478

## SHANK, ADAPTER

Steel. Designed to mount threaded spindle of grinding wheels. 1/4 inch diameter with hexagon nut one end. 1/4-20 internal thread. Overall length 1-1/4 inch. Reference number QC-4.

01-013-3459

## SOCKET, TAPER SHANK TOOL

Steel reducing sleeves. For Morse taper shank drills. Inside and outside taper size, and overall length shown.

	I/Top	O/Top	Lg/In.	Size
00-227-7520	2	3	4-7/16	5
00-227-7521	2	4	4-7/8	6
00-227-7500	3	4	5-3/8	8

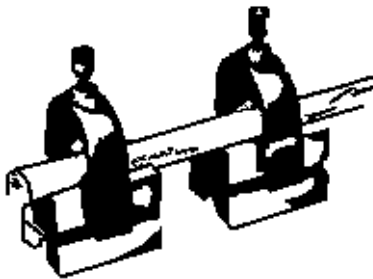
## SPLIT MANDREL

Glass filled nylon steel insert. 2-7/8 inch length, 3/8 inch diameter. Reference number 935.

00-150-7163

## V-BLOCK SET, MATCHED

Set of hardened steel V-blocks and clamps. V-grooves top and bottom, ground central, parallel, and square with ends and sides. 1-5/8 inch length, 1-1/4 inch width, 1-1/4 inch height.



00-517-6075 1-1/4 Single clamping groove

## WISE, MACHINE TABLE

Continuous screw type. Stationary base with three mounting lugs. Sliding jaw has a centrally located 90 degree vertical V notch. Jaw width and opening in inches shown below.

Light Duty

	W	Opening
00-529-4693	3-1/2	4

Heavy Duty

	W	Opening
00-293-0272	6	6

## WHEEL, ABRASIVE

Aluminum Oxide. Straight abrasive wheels. For precision grinding, tool sharpening, finishing, and other metal working operations. With bench and pedestal grinders. Grit size and grade designation shown.

**NOTE: DO NOT EXCEED MAXIMUM RPM RATING PRINTED ON ABRASIVE WHEEL.**



1-1/4 inch diameter, 5/8 inch thick.

	Grit Size	Grade
01-043-1518	46	Q-hard

3/8 inch Arbor Hole

3 inch diameter, 1/32 inch thick.

	Grit Size	Grade
00-170-7886	60	I-medium
01-102-9973	60	O-medium

3 inch diameter, 1/16 inch thick.

	Grit Size	Grade
00-172-5291	36	T-hard
01-102-8534	54	T-hard

3 inch diameter, 3/32 inch thick.

	Grit Size	Grade
01-014-9032	36	R-hard

3 inch diameter, 1/8 inch thick.

	Grit Size	Grade
00-172-5292	24	I-medium
00-548-3820*	46	R-hard
00-528-3100	60	Any

\* Silicone carbide.

3 inch diameter, 3/16 inch thick.

	Grit Size	Grade
01-015-8426	36	R-hard

4 inch diameter, 1/16 inch thick.

	Grit Size	Grade
01-048-5451	36	J-medium

	Grit Size	Grade
00-624-1933	36	R-hard

1/4 inch Arbor Hole

4 inch diameter, 1/32 inch thick.

	Grit Size	Grade
01-305-4769	60	T-hard

1/2 inch Arbor Hole

4 inch diameter, 1/16 inch thick.

	Grit Size	Grade
00-528-3113	60	Q-hard

5/8 inch Arbor Hole

6 inch diameter, 3/4 inch thick.

	Grit Size	Grade
00-882-1215	60	M-medium

6 inch diameter, 1 inch thick.

	Grit Size	Grade
00-882-1219	36	O-medium

7 inch diameter, 1/4 inch thick.

	Grit Size	Grade
01-216-3406	17	K-medium
00-364-5005	20	R-hard

7 inch diameter, 1 inch thick.

	Grit Size	Grade
00-882-1228	36	O-medium
00-882-1230	60	M-medium

1 inch Arbor Hole

16 inch diameter, 1 inch thick.

	Grit Size	Grade
00-552-4291	24	T-hard

1-1/4 inch Arbor Hole

10 inch diameter, 1-1/2 inch thick.

	Grit Size	Grade
00-762-7092	36	H-soft
00-882-0008	60	M-medium

Conical round tip. Pumice stone with thread insert mounting method .099-48 UNC. Used for dental, glass, and metal working and stone polishing. 5/16 inch diameter, 1 inch thick. Non Spec Item.



	Grade
00-225-1955	F-soft



## WHEEL, BUFFING

20-ply muslin buffing wheels. Full-disc spiral stitched. Plain center, without face plates. Dimensions in inches.



	Wheel OD	Arbor Hole	Face Width
00-174-1854	6	1/2	3/4
00-174-1858	12	1	1-1/2

## WHEEL, FLAP ABRASIVE

Aluminum Oxide; 120 grit; resin bond. Formed by multiple leaves of abrasive cloth, mounted radially on thread shank hub. Thread shank designed with shank adapters, for use with chuck, collet, or thread spindles. Rated for 12000 to 18000 RPM.

	Dia/In.	W/In.
01-050-0817	1-5/8	1



**GROUP 35**  
**SERVICE AND TRADE EQUIPMENT**  
**CLASS 3510**  
**LAUNDRY AND DRY CLEANING EQUIPMENT**

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.

**NET, LAUNDRY**

Nylon net single wall. Protective style. 36 inches high by 24 inches wide.  
White.

00-273-9739



## CLASS 3540 WRAPPING AND PACKAGING MACHINERY

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.

### STRAPPING AND SEALING KIT

Component quantity, 2004. Supply items: 3540-00-897-5516 box, wood (1); 3540-00-234-6741 sealer, steel strapping, hand (1); 3540-00-278-1250 stretcher, steel strapping, hand (1); 8135-00-283-0666 strapping, 90 pound coil (1); 8135-00-239-5308 seal, strapping, 2000.

00-565-6241

Component quantity, 1604. Supply items: 3540-00-234-6742 sealer, steel strapping, hand (1); 3540-00-278-1250 stretcher, steel strapping hand (1); 8115-00-897-5516 box, wood (1), 8135-00-290-1086 seal, strapping 1600, 8135-00-283-0667 strapping, steel, 90 pound coil (1) as modified by quantity of seals.

00-565-6242

### STRETCHER, STRAPPING, HAND

Drum take-up. Closed seal. No cut-off device. 1 inch wide by 0.039 inches thick. SPECIAL FEATURES: For applying flat steel strapping on bales, boxes, bundles, cartons, crates, pallets and freight bracing.

00-278-1251



## CLASS 3590

### MISCELLANEOUS SERVICE AND TRADE EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.

#### BARBER KIT

Contains items: 3590-00-161-6913 barber shears (2); 3590-00-162-5630 barber cloth (2); 3590-00-170-8462 hand size hair clipper 0 and 1; 3590-00-240-2926 barber kit case (1); 3590-00-892-4525 clipper, hand electric with accessories (1); 3590-00-926-3838 tray, disinfecting (1); 6840-00-753-4797 disinfectant (2); 8520-00-129-0803 soap, toilet (2); 8520-01-303-4039 cream, shaving (1); 8530-01-371-0055 soap box, plastic (1); 8530-01-293-1384 comb, hair barber (2); No NSN blade set, 3590-00-170-8462 hair clipper hand size 0, 1, No NSN blade, adaptable, size 3.500, (1); 8530-00-347-9577 disposable safety razor (80); 8530-01-293-1384 comb, hair, barber (2).

00-058-1837

#### CLIPPER, HAIR

Electric. AC/DC. 110 Volts. 60 Hertz. Single phase. Includes case. Supplied with 2 blades, size 1, size 000, blade guard, blade cleaning brush, oil and instructions; weight 2 pounds maximum.

00-892-4525





# GROUP 39

## MATERIALS HANDLING EQUIPMENT

### CLASS 3940

#### BLOCKS, TACKLE, RIGGING AND SLINGS

**NOTE:** As non-plastic, alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BLOCK, TACKLE

FOR FIBROUS ROPE TACKLE

REGULAR

GENERAL PURPOSE BLOCKS. Round pattern. Malleable Iron or Steel shell with becket. Steel center pin and sheave bushed with self-lubricated Bronze bearing. Fitted with thimble and attachment as shown. Galvanized finish overall.

Single Sheave



4 inch size - 1,000 pound SWL, 1/2 inch diameter rope.

	Atch
00-879-2128*	B
00-984-3800	C
00-926-3728	D
* 1,600 pound SWL	

6 inch size - 2,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-926-3709	A
00-879-2133	B

8 inch size - 3,300 pound SWL, 1 inch diameter rope.

	Atch
00-072-0331	A
00-926-3710	D

10 inch size - 5,000 pound SWL, 1-1/4 inch diameter rope.

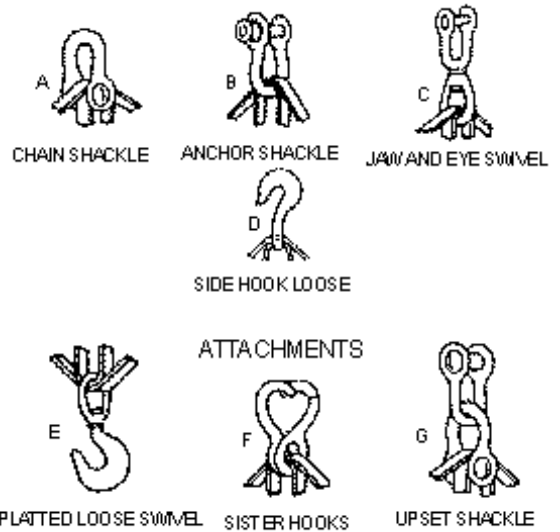
	Atch
00-926-3737	B
00-950-2960	C

12 inch size - 6,800 pound SWL, 1-1/2 inch diameter rope.

	Atch
00-926-1081	B

14 inch size - 9,600 pound SWL, 1-3/4 inch diameter rope.

	Atch
00-926-3712	B



Double Sheave



4 inch size - 1,600 pound SWL, 1/2 inch diameter rope.

	Atch
00-984-0223	B
00-950-2956	C
00-926-3713	E

6 inch size - 3,300 pound SWL, 3/4 inch diameter rope.

	Atch
00-892-4560	A
00-892-4561	B
00-984-0224	C
00-059-5996	E

# CLASS 3940

8 inch size - 5,100 pound SWL, 1 inch diameter rope.

	Atch
00-926-3716	B
00-950-2961	C
00-926-3718	E



10 inch. size - 7,700 pound SWL, 1-1/4 inch diameter rope.

	Atch
00-059-5995	A



	Dia/In.
00-494-0833	1/4 rope

SIGNAL HALYARD BLOCK. Bronze shell with roller-bushed single sheave and Steel center pin. Fitted with loose side sister hook attachment. NAVSEA Drawing S1801-860466.

6 inch size - 4,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-926-3721	A
00-984-0220	C
00-926-3734	D



8 inch size - 6,800 pound SWL, 1 inch diameter rope.

	Atch
00-926-3727	D

OVAL, NAVY STANDARD WOOD BLOCK. Double-sheaved. Gray colored wood shell with Steel roller bearings, Steel center pin, and Steel sheave. Fitted with thimble and chain shackle attachment. NAVSEA Drawing S1801-860393, pieces: 1 to 7, 9 to 16, 18, 24, 28, 32 to 34.

6 inch size - 3,700 pound SWL

	Dia/In.
00-227-5563	3/4 rope

PULLEY-TYPE BLOCKS. Galvanized Malleable Iron and Steel awning blocks with round swivel eye attachment.

Single Sheave



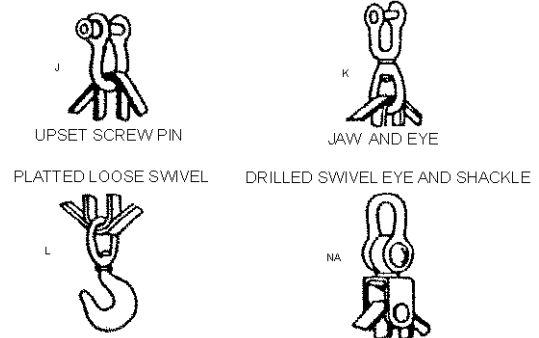
1 inch size - 150 pound SWL

	Dia/In.
00-494-0834	1/4 rope

Double Sheave

3 inch size - 380 pound SWL

	Dia/In.
00-263-3041	5/16 rope



GENERAL PURPOSE SNATCH BLOCKS. Safety-locking swivel cross head and shackle link. Malleable Iron or Steel shell and sheave. Steel center and sheave bushed with self-lubricated plain Bronze bearing. Fitted with swivel attachment as noted. Galvanized finish.

6 inch size - 3,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-723-3549	J



8 inch size - 4,800 pound SWL, 1 inch diameter rope.

00-820-5145\* Atch K  
 00-072-0369 L  
 \* Either Bronze or Copper bearing.



10 inch size - 6,000 pound SWL, 1-1/8 inch diameter rope.

01-386-9355 Atch A

Tackle Dia/In.	Sheave OD/In.
3/4	18

10 inch size - 8,000 pound SWL, 1-1/4 inch diameter rope.

00-892-4556 Atch NA

Double block

12 inch size - 10,000 pound SWL, 1-1/2 inch diameter rope.

00-822-2250 Atch K or NA



14 in. size - 12,000 lb SWL, 1-3/4 inch diameter rope.

00-892-4557 Atch NA

Tackle Dia/In.	Sheave OD/In.
3/4	18

16 inch size - 16,000 pound SWL, 2 inch diameter rope.

00-879-2137 Atch NA

00-264-4735

OVAL, NAVY STANDARD BLOCKS. Galvanized Steel-plate construction. Steel sheave bushed with plain Bronze bearing. Lubricated thru pressure-grease fitting in sheave pin. Furnished without attachment fittings. NAVSEA Drawings S1901-770367, -770368, -770369, and -770370. For Attachment fittings, refer to FSC 4010 Rope, Wire. Diameter and Overall Diameter listed in inches.

WOOD SNATCH BLOCK FOR LIFTING AND TOWING. Beech, Birch, or Maple cheeks. Galvanized Steel dowel bolt, burr, and sheave. Gp "M" Steel sheave pin, Bronze self-lubricating sheave bushing. "BW" Steel Galvanized swivel hook.

Single Sheave

Single Sheave



Tackle Dia/In.	Sheave OD/In.
1	24

12 inch size - 4,750 pound SWL 4 inch diameter rope.

00-003-0706

00-264-4762

ROUND, EXTRA-HEAVY DUTY BLOCKS. Structural Steel-plate construction with becket. Steel sheaves bushed with self-lubricated plain Bronze bearings. Fitted with thimble type becket and chain shackle attachment. Yellow-gloss painted finish. Diameter and Overall Diameter listed in inches.

## FOR WIRE ROPE TACKLE

### REGULAR

DIAMOND, NAVY STANDARD BLOCKS. Galvanized Steel-plate construction. Steel sheave bushed with plain Bronze bearing. Lubricated through pressure-grease fitting in sheave pin. Furnished without attachment fittings. NAVSEA Drawings S1801-770367, -770368, and -770369 respectively. For Attachment fittings, refer to FSC 4010 Rope, Wire.

Single block

HOISTER, NAVY STANDARD CARGO BLOCKS. Galvanized Cast Steel construction. Single sheave bushed with tapered roller bearings. Provided with pressure-grease fittings for sheave pin and swivel eye attachment. NAVSEA Drawing S1801-770379. 1- Diameter and Overall Diameter listed in inches.

Oblong Swivel Eye

Tackle Dia/In.	Sheave OD/In.	SWL/Lb
3/4	18	15,000

00-264-4764

Round Swivel Eye

# CLASS 3940



	Tackle Dia/In.	Sheave OD/In.	SWL/Lb
00-264-4767	3/4	18	15,000

LIFTING AND TOWING, EXTRA-HEAVY DUTY. Safety-locking swivel cross head and shackle link. Steel shell, sheave, and center pin. Bushed with grooved Bronze bearing lubricated through pressure-grease fitting in extra-large center pin. Fitted with swivel attachment as shown. Galvanized finish.

Single Sheave



6 inch size - 5 ton SWL

	Dia/In. for 5/8 WR
00-609-8026	

NAVY STANDARD SNATCH BLOCKS. Safety-locking cross head yoke with swivel-pin and toggle latch-pin. Steel shell, single sheave, and sheave pin. Bushed with plain Bronze bearing. Provided with pressure-grease fittings for sheave pin and swivel attachment. Galvanized finish. Diameter and Overall Diameter listed in inches. NAVSEA Drawing S1801-770377.

Round Swivel Eye

	WR/Dia/In.	Sheave OD/In.	SWL/Lb
00-264-4774	1/2	12	6,840

MINES WEEPING, NONMAGNETIC BLOCKS. Safety-locking cross head yoke with swivel-pin and chained toggle-pin. CRES. Single sheave bushed with self-lubricated plain Manganese Bronze bearing. Fitted with drilled swivel eye and shackle attachment.

	WR/Dia/In.	Sheave OD/In.	SWL/Lb
00-368-7551*	1/2	6	5,000

\* NAVSEA Drawing S8101-1723699.

MINES WEEPING BLOCK. Safety-locking, drilled sheave pin with spring loaded lockpin. CRES half-strap shell and 11 inch diameter. Single Bronze sheave bushed with self-lubricated, plain Bronze bearing. Fitted with swivel-eye attachment. Rated SWL 17,600 pounds. NAVSEA Drawing S8101-1723665.



00-809-7167      7/8 WR

HALF-STRAP PATTERN SNATCH BLOCKS. Safety-locking with latch pin. Plastic bearing, self lubricated. CRES center pin and shell. Accommodates chain tackle. NAVSEA drawing S8101-1723626.



4.5 inch size, 8 ton SWL

00-722-8995      Atch  
B

## SET BLOCK AND TACKLE

LINEMAN'S SNUBBING BLOCK AND TACKLE. Consists of: two, 3-1/8 inch size, double sheaved steel blocks 3940-00-263-3042, twenty-five feet of 3/8 inch diameter manila rope 4020-00-689-5688, two cable jaw grips 5120-00-224-2647, and a regular hoist hook 4030-00-141-3272. Galvanized finish on metal parts.



00-141-7218      W/Lb  
1,200 SWL

## SHACKLE, SIDE

Use with Diamond and Oval blocks. NAVSEA Drawing S1801-770374.



Single Sheave

	Block/In.
00-275-2961	3/4
00-275-2962	7/8

## SHACKLE, TOP

Use with Diamond, Oval, Hoister and Snatch blocks. NAVSEA Drawing S1801-770374 and -7700375.



Single Sheave

	Block/In.
00-272-9984	1/2
00-272-9986	3/4
00-272-9987	7/8

## Cargo Handling Gear

## CLAMP, MATERIAL LIFTING

STEEL-PLATED VERTICAL LIFT CLAMP. Steel construction. Serrated gripping jaws with, cam-grip safety lock and lock-open device one end. 3 inch Inside Diameter lifting eye or shackle other end. Used for lifting plates, up to 11-1/4 inch thick, in a vertical position.



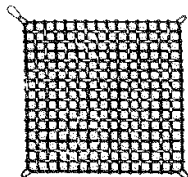
00-813-9002 4 ton lifting capacity

## SLING, CARGO, NET

Nylon Webbing Net Slings. Square mesh construction, with color-coded inserts to identify net size.

NOTE: Heavy duty slings may be repaired with anti-static treated Nylon webbing, NSN-8305-00-016-6483.

HEAVY DUTY, 4,500 pound Load Capacity. Each corner fitted with a hoist link and a 7 foot long loop of Nylon rope.



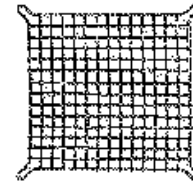
Anti-Static Treated, Charcoal-Gray Webbing.

	Sq/Ft	Insert/Color
00-892-4372	10	Blue
00-892-4373	12	Red
00-892-4374	14	Green

Untreated, Olive-Drab Webbing.

	Sq/Ft	Insert/Color
00-892-4375	12	Red

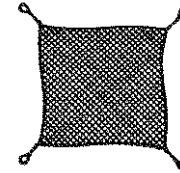
LIGHT-DUTY, 2,500 pound Load Capacity. Each corner formed as a 29 inch long reinforced loop.



Anti-Static Treated, Charcoal-Gray Webbing.

	Sq/Ft	Insert/Color
00-892-4379	12	Red
00-892-4380	14	Green

GALVANIZED-STEEL WIRE NET SLING. Diamond mesh construction. Each corner of jackstay formed with a 29 inch long loop. NAVSEA Drawing S2700-941216.



	Sq Ft
00-223-8829 <sub>NP</sub>	10

## SLING, ENDLESS

FIBER ROPE SLING. 3/4 inch diameter Silicone and liquid Nylon coated fiber rope. Inside Circumference, 2.250 feet.

	Wt/Lb
01-053-2557	4500 SWL

Nylon webbing type sling. Abrasion resistant Nylon. Inside Circumference, 8 feet.

	W/In.	Lg/Ft
01-160-2398	1	8

MANILA ROPE BULL SLING. An endless loop of 1-5/16 inch diameter, salt-water resistant, manila rope. For use with barreled and boxed cargo.

00-174-0468 80 ft loop

## SLING, MULTIPLE LEG

GENERAL PURPOSE CARGO SLING. Consists of: a 9 by 1-1/2 inch lifting ring, fitted with two wire rope legs (each 30 foot long) and a reverse eye slip hook. Galvanized finish overall. SWL (Safe Working Load) rated with legs 90 degrees apart. NAVSEA Drawing S2700-922938, Assembly B.

# CLASS 3940



Wt/Lb  
00-355-4920 8,000 SWL

VEHICLE LOADING SLINGS, SHIPBOARD. Consists of: 4 upper and lower wire rope legs, with 2 Steel spreaders. Each lower leg fitted with a safety hoist swivel hook. With pear-shaped lifting link; 4 feet, 3 inch long upper leg; 9 feet 7-1/2 inch long lower legs, and 2 inch diameter by 78 inch long spreaders.

Wt/Ton  
00-777-5744 5 SWL

With flounder plate; 5 feet 6 inch long upper legs; 10 feet 6 inch long lower legs; 3-1/2 inch diameter by 9 feet 4 inch long spreaders; 4 additional lower extension legs: Two, 4 feet 9 inches long, and two, 6 feet 6 inches long, each fitted with a safety hoist swivel hook.

Wt/Ton  
00-868-1589 30 SWL

## SLING, PALLET

WIRE ROPE PALLET SLINGS. For use with 48 inch wide (maximum) pallets. Consists of: a lifting ring fitted with, 2 wire rope bridles fitted to Steel pipe lifting bars at lower ends. Galvanized Steel fittings.

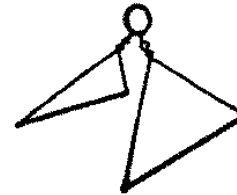
With Spreaders. Consists of: two, 60-3/8 inch long wood spreaders, two, 57

inch long lift bars, and a 6 inch by 1-1/2 inch lifting ring. 12 feet 8 inches between pendant bearing surfaces.



Wt/Lb  
00-382-9159 7,500 SWL

Without Spreaders. Consists of: two, 57 inch long lift bars and a 6 inch by 1-3/8 inch lifting ring. 10 feet between pendant bearing surfaces.



Wt/Lb  
00-355-4926 4,000 SWL

Beam, one shackle each end, flexible wire rope legs suspended each shackle. Positive locking safety hook with two I-Beam ballet bars, 8,000 pound DIM. Overall width , 57.500 inch.

00-627-9603

## CLASS 3990

### MISCELLANEOUS MATERIALS HANDLING EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more “wisely”, items recommended for shipboard use will be annotated with “NP” by the National Item Identification Number.

#### **BINDER, LOAD**

Eccentric tightening device. Includes chain grab hook. 2 swivels.

Take-up length, 5 inches nominal. Chain size, 0.250 inches minimum and 0.375 inches maximum. Safe operating load rating, 12000.000 pounds nominal. Includes lever with a length of 16 inches minimum and 21.500 inches maximum. Does not include take-up spring.

00-171-9774

Take-up length, 4 inches minimum. Chain size, 0.375 inches minimum and 0.500 inches maximum. Safe operating load rating, 15000.000 pounds nominal. Includes lever with a length of 20 inches nominal. Includes take-up spring.

00-171-9775

Lever tightening device. Includes chain grab hook. 2 swivels.

Take-up length, 4.625 inches nominal. Chain size, 0.500 inches nominal. No operating load rating. Includes lever with a length of 14 inches minimum and 19 inches maximum. SPECIAL FEATURES: Tensile proof load rating, 15,000 pounds.

00-596-7051





# GROUP 40

## ROPE, CABLE, CHAIN, AND FITTINGS

### CLASS 4010

#### CHAIN AND WIRE ROPE

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### CHAIN ASSEMBLY, SINGLE LEG

##### BEAD CHAIN

STEEL ALLOY, Corrosion Resistant. Bead chain type with bead chain fasteners at each end. Beads per foot (BPF) are listed below. Bead diameter and overall length listed in inches. Breaking strength shown in pounds.

	Brkg Str	BPF	Dia	Lg
00-730-4917 <sub>NP</sub>	45	72	.125	4.0
00-882-5322 <sub>NP</sub>	90	50	.188	5.0
00-019-1506 <sub>NP</sub>	—	—	—	6.0
00-080-9818	90	50	.188	7.0

COPPER ALLOY, Chromium Treated.

	Brkg Str	BPF	Dia	Lg
00-757-5497 <sub>NP</sub>	45	50	.188	5.0

##### CRANE CHAIN

DAN BUOY. Corrosion Resisting Steel, welded, crane type chain. 4 enlarged common link type attachments. Magnetic permeability not to exceed 2.0. Primer paint all attachments. Used with Dan Buoy single float type. Diameter and length shown in inches. NAVSEA Drawing 448187.

	Dia	Lg	
00-274-3033 <sub>NP</sub> *	.375	96	cast

\* Varnish asphalt coating

BOAT ANCHORS. Welded Steel, Zinc Coated crane type chain. Includes one pear shaped link, 3 enlarged common links and one chain shackle. Approximately 10 foot length and .375 inch diameter with a safe operating load of 4,650 pounds. Breaking strength 9300 pounds. For use with boat anchors.

00-555-9510<sub>NP</sub>

DOUGLAS DC-3. Crane type chain with quick attach/detach fitting, and hook and tension adjust screw. Overall length, 2 feet. Safe operating load to approximately 5 tons. For use to secure loads on Douglas DC3. Non Spec Item.

00-516-8405

GRAB HOOK CHAIN ENDS. Closed link style

chain 14 foot length and .400 inch diameter. Safe operation to 4250 pounds; breaking strength 16200 pounds. All Steel composition. RR-C-271.

00-171-4427

"S" HOOK CHAIN ENDS. Safety plumbers style chain. 6 inches in length.

00-609-0165

#### CHAIN, BEAD

COPPER ALLOY; Nickel Plated. Beads per foot (BPF), bead diameter in inches and breaking strength in pounds are shown below.

##### C-13 BEAD CHAIN



	BPF	Dia	Brkg Str
00-555-2658 <sub>NP</sub> *	102	.094	18
00-272-8812 <sub>NP</sub>	75	.125	25
00-171-4506 <sub>NP</sub>	50	.187	45

\* Corrosion Resistant Steel.

STEEL OVERALL Size 6. 72 beads per foot with .125 inch bead diameter. Breaking strength shown in pounds. Non Spec Item. Drawing number, 530A189.

	Brkg Str
00-875-8059 <sub>NP</sub>	30

#### CHAIN, WELDED

STEEL OVERALL. Style, chain diameter in inches, safe operating load (Opr Ld), and breaking strength (Brkg Str) in pounds shown below.

##### C-22 CLOSE LINK CHAIN



Red lead primed

	Dia	Opr Ld	Brkg Str
00-702-5003 <sub>NP</sub>	.281	2050	7750

Zinc Coated

	Dia	Opr Ld	Brkg Str
00-988-3181	.250	3250	11000

##### C-23 PROOF COIL CHAIN



Style, chain diameter in inches, safe operating load (Opr Ld), and breaking strength (Brkg Str) in pounds shown below.

Uncoated

	Dia	Opr Ld	Brkg Str
00-165-5629 <sub>NP</sub>	.219	522	2090
00-184-3476 <sub>NP</sub>	.406	2650	10600
00-149-5584 <sub>NP</sub>	.531	—	16500

Zinc Coated

	Dia	Opr Ld	Brkg Str
00-129-6049 <sub>NP</sub>	.281	900	3600
00-149-5583 <sub>NP</sub>	.344	1360	5440

Aluminum Alloy

	Dia	Opr Ld	Brkg Str
00-006-2587 <sub>NP</sub>	.250	550	—

##### C-20 CRANE CHAIN, Corrosion Resisting Steel.

	Dia	Opr Ld	Brkg Str
01-320-8239	.125	—	—
01-320-8238	.250	—	—

#### CHAIN, WELDLESS

Style, material, trade number (Trd No), stock diameter (Stk Dia), in inches and breaking strength in pounds are shown below.

##### C-9 DOUBLE JACK CHAIN



Copper

	Trd No.	Stk Dia	Brkg Str
00-186-9381 <sub>NP</sub>	18	.048	20
00-228-9952 <sub>NP</sub>	8	.105	90

# CLASS 4010

## C-7 SAFETY-PLUMBERS CHAIN



Aluminum Alloy, Anodized.

	Trd No.	Stk Dia	Brkg Str
00-262-1551	1	.028	30
00-934-0295*	—	.028	30

\* 4 inch length.

Copper

	Trd No.	Stk Dia	Brkg Str
00-725-8402 <sub>NP</sub>	0	.023	110
01-145-4658	0	.023	110
00-720-4467 <sub>NP</sub> *	2	.028	190
00-274-3482 <sub>NP</sub>	1	.028	150

\* Nickel Plated.

Steel, Corrosion Resisting.

	Trd No.	Stk Dia	Brkg Str
00-262-1548 <sub>NP</sub>	00	.018	125

## C-4 SASH CHAIN



Copper

	Trd No.	Stk Dia	Brkg Str
00-228-9933	35	.035	435

Steel, Copper finish.

	Trd No.	Stk Dia	Brkg Str
00-171-4512 <sub>NP</sub>	—	.035	350
00-228-9943 <sub>NP</sub> *	40	.042	573
00-228-9944 <sub>NP</sub>	45	.050	700

\* Cadmium finish.

Steel, Corrosion Resisting.

	Trd No.	Stk Dia	Brkg Str
00-725-3338 <sub>NP</sub>	35	.035	700

## C-8 SINGLE JACK CHAIN



Copper

	Trd No.	Stk Dia	Brkg Str
00-228-9964 <sub>NP</sub>	12	.105	80
00-228-9963 <sub>NP</sub>	10	.135	135

Steel, Zinc Coated.

	Trd No.	Stk Dia	Brkg Str
00-228-9975 <sub>NP</sub>	12	.105	115
00-228-9974 <sub>NP</sub>	10	.135	190

## C-1 SINGLE LOOP CHAIN

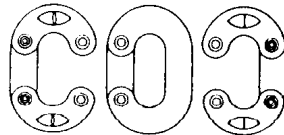


Steel, Zinc Coated.

	Trd No.	Stk Dia	Brkg Str
00-297-5741 <sub>NP</sub>	1	.120	995

## LINK, CHAIN, CONNECTING

Steel, Zinc Coated. Consisting of two link halves with integral rivets. Size .375 inch diameter and larger are provided with interlocking lugs. Chain sizes in inches, breaking strength in pounds, as listed below.

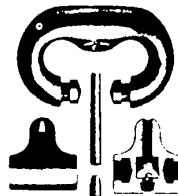


	Lg	W	Dia	Brkg Str
00-191-0091	1.500	1.000	.250	4500
00-149-5619*	1.688	1.188	.312	6800
00-165-5605	2.062	1.375	.375	9300
00-270-1654	2.062	1.375	.375	9300
00-165-5607	2.625	1.750	.500	16500
00-179-0768	3.875	2.500	.750	35400

\* Steel Comp 1008-1025 material.

## LINK, CHAIN, DETACHABLE

Navy type, high strength, forged Steel construction. Identified by USN and size in raised lettering on the C-link. Chain size in inches and breaking strength in pounds, as listed below. NAVSEA S2603-921790.

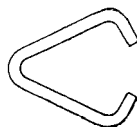


	Lg	W	Dia	Brkg Str
00-106-9474 <sub>NP</sub>	4.500	3.000	0.750	91000
00-106-9472 <sub>NP</sub>	6.000	4.000	1.000	156700
00-804-2719 <sub>NP</sub> *	8.000	5.250	0.750	—
00-106-9459 <sub>NP</sub>	11.250	7.250	1.875	—

\* Pear shape; Zinc coated.

## LINK, CHAIN, END

SPLIT TRIANGULAR STYLE. Corrosion Resisting Steel. Stock diameter .072 inches. Surface to bearing distance .856 inches, inside width .250 inches.



00-282-6225<sub>NP</sub>

RECTANGULAR STYLE. Steel. Stock diameter 1.250 inches, inside length 8.750 inches, inside width 4.375 inches.

01-098-7327

## ROPE, WIRE

### AVIATION APPLICATIONS

Independent wire rope core construction. Lay method right regular all layers. Preformed fabrication. Issued in 1000 foot rolls. Diameter shown in inches; breaking strength in pounds.

COMPOSITION A. Carbon Steel, Tin or Zinc, or Tin and Zinc Coated. Type 1, non-jacketed wire rope.

Style 7 X 7

	Dia/In.	Brkg Str/Lbs
00-222-4494	.062	480
00-243-3589	.094	920

Style 7 X 19

	Dia/In.	Brkg Str/Lbs
00-285-3705	.15	2800
00-082-5963	.188	4200

COMPOSITION B. Corrosion Resistant Steel. Uncoated. Type 1, non-jacketed wire rope except where noted.

Style 3 X 7

	Dia/In.	Brkg Str/Lbs
00-951-5426*	.031	110

\* 100 foot length.

Style 7 X 7

	Dia/In.	Brkg Str/Lbs
00-222-4482	.062	480

Style 7 X 19

	Dia/In.	Brkg Str/Lbs
00-837-3649*	.064	500
00-575-6234†	.094	920
00-222-4490	.125	1760
00-222-4491	.156	2400
00-222-4492‡	.188	3700
00-956-2871§	.250	6400
00-222-4479	.250	6400
01-202-7014	.250	6400
00-222-4481	.312	9000
00-222-4493	.375	12000

\* 1 foot length.

† Jacketed.

‡ Comp and type unknown.

§ 50 foot length.

### GENERAL PURPOSE APPLICATIONS

Intended for use in general hauling, hoisting, lifting, transporting, well drilling. Diameter shown in inches; breaking strength in pounds; lengths in feet as indicated below.

Steel CORE CONSTRUCTION. Steel material overall. Improved plow strand. Independent wire rope Steel core. Lay method right regular all layers. Preformed fabrication.

Zinc Coated Steel.

# CLASS 4010

## Style 6 X 19

	Dia	Brkg Str	Lg
00-274-3477	.625	35000	1000

Untreated Steel.

## Style 6 X 19

	Dia	Brkg Str	Lg
00-272-8849	.375	13120	1000
00-272-8848	.500	25000	—

## Style 6 X 37

	Dia	Brkg Str	Lg
01-022-2102	.250	6400	1000
00-878-9819	.375	12400	100
00-205-4015	.375	12500	200
00-270-8636*	.500	21450	600
00-269-9369	.500	22000	800
00-142-6486	.500	26000	1200
00-892-3943	.750	48600	600
00-142-6341	.750	47385	900
00-286-7611	.750	47385	2500
00-142-6342	.875	79600	900
00-269-9343	.875	65800	—
00-142-6485	1.000	83460	900

\* Pre-stressed to 40% of Breaking Strength.

CORROSION RESISTANT Steel strand and core. Unknown type, class, and construction.

## Style 6 X 19

	Dia	Brkg Str	Lg
00-274-3481	.438	16300	1000
00-194-1217	.500	22800	1000

FIBER CORE CONSTRUCTION. Steel improved plow strand except where noted. Fiber core. Lay method right regular all layers. Preformed fabrication except where noted.

Zinc Coated Steel.

## Style 6 X 19

	Dia	Brkg Str	Lg
00-273-2903	.250	4932	600
00-273-2904	.375	10980	600

## Style 6 X 25

	Dia	Brkg Str	Lg
00-542-2256	.625	30060	600

## Style 6 X 37

	Dia	Brkg Str	Lg
00-542-2397	.250	4660	600
00-272-8794	.375	10380	600
00-901-4458	.500	18360	1800
00-542-2258	.625	28440	600

Untreated Steel.

## Style 6 X 19

	Dia	Brkg Str	Lg
00-542-2255	.625	33400	600

## Style 6 X 37

	Dia	Brkg Str	Lg
00-542-2383	.312	8060	600
00-286-7717	.375	12400	—
00-542-2386	.625	30810	600
00-270-8639*	.750	48600	600
00-286-7612	.875	59670	2500

\* Pre-stressed to 40% of Breaking Strength.

COPPER ALLOY 510. Fiber core construction. Material response strand. Right regular all layers. Straight fabrication.

## Style 6 X 19

	Dia	Brkg Str	Lg
01-088-3491*	.312	3680	—
00-272-8798	.312	3680	600
00-272-8800	.438	7080	600
00-272-8802	.562	11500	600

\* Preformed fabrication.

## MARINE APPLICATIONS

Intended for use in multiple/general marine type applications. Includes uses such as; Spring lay lines and running ropes. Diameter shown in inches; breaking strength in pounds; length in feet.

SPRING LAY LINE. Steel improved plow strand, Zinc Coated. Fiber core construction. Preformed fabrication.

## Style 6 X 3 X 19

	Dia	Brkg Str	Lg
00-185-0222	1.625	88900	600

## MINESWEEPING APPLICATIONS

Intended for the use in minesweeping applications. Diameter shown in inches; breaking strength in pounds; lengths are unknown.

CORROSION RESISTANT Steel composition 305 strand. Wire strand core. Preformed, right regular all layers except as noted.

## Style 7 X 19; warrington.

	Dia	Brkg Str
00-782-5431 <sub>NP</sub>	.187	3900
00-184-9553 <sub>NP</sub>	.250	5600
00-184-9557 <sub>NP</sub>	.312	8700
00-184-9558 <sub>NP</sub>	.375	12200

## NON-SPEC ITEMS

CORROSION RESISTANT Steel overall. Lay method right lay all layers, straight fabrication. Style 7x7. Ball terminal attached to each end, and one ball in the center. Diameter approximately .062 inches; breaking strength 350 pounds. Various approximate lengths in inches as noted.

	Lg
00-105-3815	20.0
00-105-3814	28.0
00-105-3813	2.5
00-105-3812	2.0

Steel Strand, Zinc Coated. Surface treatment overall. Preformed fabrication. Approximately .031 inch diameter. Furnished in 1000 foot sections. Features clear vinyl coating.

00-886-6251

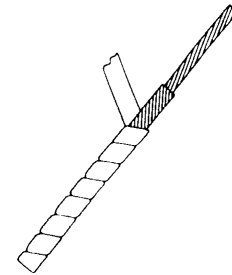
TELETYPE EQUIPMENT. Intended for use on teletype and facsimile equipment.

00-370-1116

## STRAND, WIRE

AERIAL TOWING CABLE. Intended for aircraft use in towing aerial targets. Manufactured to meet the needs of a variety of reeling machines. Used in conjunction with many target types.

ARMORED outer covering of flat Steel wire. Wrapped spirally around an all Steel 1 by 19 style wire. Zinc surface treatment overall. Diameter shown in inches, breaking strength in pounds, and length in feet.



	Dia	Brkg Str	Lg
00-202-2087 <sub>NP</sub>	.172	4000	10500

GENERAL AIRCRAFT USE. Intended for use in general aviation related applications.

CRES strand wire. Preformed fabrication. Non-flexible, 1 by 19 strand style. Furnished in 1000 foot sections. Approximate diameter shown in inches, breaking strength in pounds.

	Dia	Brkg Str
00-224-9432 <sub>NP</sub>	.062	500

SEIZING WIRE. Steel strand wire overall. Preformed fabrication of 1 by 7 style. Furnished in 1000 foot length. Diameter shown in inches; breaking strength in pounds.

Annealed Steel, Zinc Coated.

	Dia	Brkg Str
00-224-9428 <sub>NP</sub>	.031	185
00-238-3472 <sub>NP</sub>	.062	140
00-222-5346 <sub>NP</sub>	.094	300
00-222-5347 <sub>NP</sub>	.125	530

CRES, Zinc Coated.

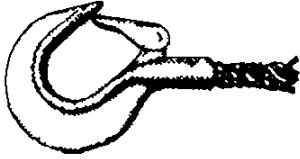
	Dia	Brkg Str
00-641-6185 <sub>NP</sub>	.062	140
00-641-6184 <sub>NP</sub>	.094	300
00-641-6183 <sub>NP</sub>	.125	530

# CLASS 4010

## WIRE ROPE ASSEMBLY, SINGLE LEG

### SHANK HOOK ENDS

Wire rope equipped with shank hooks at each end. Hooks are approximately 5 inches long with 1 inch throat openings. Preformed 7 by 19 style rope. Rope diameter .188 inch and 600 inch length.



D-65 SHANK HOOK

Steel Alloy with Zinc surface treatment overall. D-65 shank hooks fitted with inward acting safety throat closure. Right regular lay method.

00-285-9901

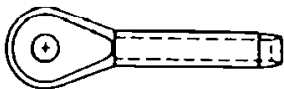
### "S" HOOK ENDS

Steel Comp 302, D55 "S" hook on first end and Aluminum Alloy 2024, D311 straight terminal second end. Connected with a .062 inch diameter, 7 by 7 style, CRES wire rope. Approximately 6 inch length with a 480 pound breaking strength. 2 swaged fittings.

01-330-9936

### SWAGING TERMINAL ENDS

Steel Composition 303 wire rope. Style 7 by 7 with preformed right regular lay method. Independent wire core. Approximately .063 inches in diameter, 480 pounds breaking strength. Equipped with a D-183 swaging terminal on each end. Lengths in inches listed below.



D-183 SWAGING TERMINAL

Lg/In.

00-051-7122 6  
00-115-2594 8

TREATED Steel wire rope with all Steel attachments. Cadmium Coated terminal ends and Zinc Coated wire rope. Rope style 7 by 19. Equipped with a D-183 swaging terminal on each end.

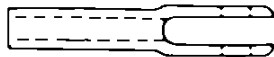
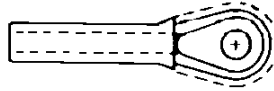
Preformed fabrication. 4200 pound breaking strength. Right regular lay method. Approximately 30 foot length and .188 inch in diameter.

00-238-6855

Straight fabrication. Breaking strength and lay method unknown. Approximately 18 foot long and .250 inch in diameter.

01-225-9712

CRES overall. Rope style 7 by 19 with preformed right regular lay method. Approximately 16 feet length and .188 inch in diameter. 4200 pound breaking strength. D-184 swaging terminal attachment both ends.

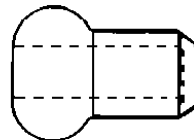


D-184 SWAGING TERMINAL

01-006-3855

### SINGLE SHANK BALL END

Steel Composition 303SE or 305 wire rope. Extra improved wire rope and attachment ends. Preformed, right regular all layers 6 by 37 rope. Approximately 110 foot length and .312 inches in diameter. 9800 pound minimum breaking strength. D-2 single shank ball one end; plain other end. Passivate surface treatment shank end.



D-2 SINGLE SHANK BALL

01-026-1854

CRES. wire rope with a Plastic Polyamide strand covering. D2 single shank ball on both ends. Furnished with 1 screw. Overall length shown in inches. Design control reference 2771513.

Lg/In.

01-259-2498 24  
01-139-4296 30

### SHANK BALL and TERMINAL ENDS

D-2 SHANK and D-184 SWAGING ENDS. Wire core construction rope of straight fabrication. D-2 single shank ball one end; D-184 swaging terminal other end. Length in feet and dash numbers listed below.

Lg/In.

00-071-4464 4.765  
00-071-4475 4.585

D-2 SHANK and D-183 SWAGING ENDS. Wire

rope assembly. Approximately 19 foot length with a 8000 pound breaking strength. D-2 single shank ball one end; D-183 swaging terminal other end.

00-165-6019

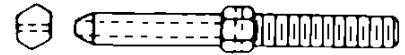
D-2 SHANK and STUD TERMINAL ENDS. Steel Composition wire rope and attachments. Rope style 7 by 19. D-2 single shank ball one end; other end as listed.

.125 inch diameter wire rope. Right regular outer layer.

D-182 Stud terminal second end. Overall length of rope 1.732 feet with a breaking strength of 2000 pounds. Surface treated.

01-239-3653

D-181 stud terminal second end. Breaking strength of 1760 pounds.



D-181 STUD TERMINAL

01-272-8384 2.042  
01-272-8385 1.448

### AIRCRAFT

D2 SHANK BALL AND D53 HOIST HOOK ENDS.

Wire rope 7 by 19 style. Approximately 101.5 foot length and .250 inch diameter. 7000 pound breaking strength. D2 shank ball one end, and D53 hoist hook other end.

00-716-3575

### LOOP ENDS

LIGHT DUTY. Preformed Steel wire rope with a loop at each end. Seized and swaged. Wire diameter, length, and proof test load as noted.

	Dia/In.	Lg/In.	Load/Lbs
01-216-3743	.052	12	150
01-021-6334	.062	7	250*
01-210-0905	.063	9	150

\* Breaking strength.

Non-preformed fabrication. Also a CRES rope with an independent wire core. Rope style is 7 by 19, straight fabrication. Approximately 1.5 foot length and .062 inches in diameter. Clamped loops at both ends.

01-029-4127

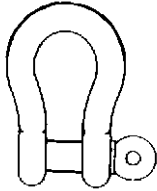
LOOP AND B312 TAPERED TERMINAL END. Steel wire rope, 7 by 7 style. Diameter .062 inches. Length in inches and Breaking strength in pounds as listed.

	Lg/In.	Brkg Str/Lbs
00-457-2957	6	48

## SHACKLES

### SCREW PIN ANCHOR SHACKLE

Steel Composition 1010 or 1015 wire rope and ends. Preformed, right regular layered 6 by 19 rope with a fiber core. 12 foot length and .890 inch diameter. Breaking strength of 70000 pounds. Looped and swaged first end, with attached D-133 screw pin anchor shackle; unknown terminal attachment second end.



### D-133 SCREW PIN ANCHOR SHACKLE

00-789-1058

#### *SPECIAL USE*

WEAPONS SKID. Single leg wire rope assemble for use on a weapons skid. Ends unknown.

01-166-9450

SH-60B RECOVERY SYSTEM. Steel comp 302 straight wire rope. Terminal attachment one end, and D70 snap choker attachment other end. 67 foot length and .406 inch diameter.

01-269-7319



# CLASS 4020

## FIBER ROPE, CORDAGE, AND TWINE

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### CORD ASSEMBLY, ELASTIC

Elastic material. 4.880 inch minimum to 5.120 inch maximum diameter.

01-203-1007

### CORD, FIBROUS

COTTON BRAIDED CORD.

Lead or Taffrail Log Line. Natural color.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-240-2164 <sub>NP</sub>	1/4	220	67

Sash Cord. Natural color.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-270-5468	1/8	100	1000
00-233-6555*	1/8	100	1000
00-271-1914	7/32	300	400
00-551-3343	1/4	370	333
00-551-8804	1/4	370	400
00-240-2160	5/16	560	400
00-241-8439	3/8	720	33
00-240-2142	3/8	720	420

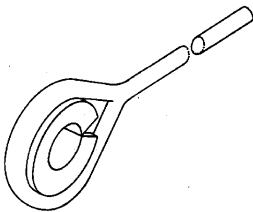
\* Mildew resistant and water repellent.

GLASS TWISTED CORD, used for electrical insulation or for mechanical support. Continuous filament, natural color, and Synthetic Rubber coating.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-008-6037	5/64	250	210

### FIBER ROPE ASSEMBLY, SINGLE LEG

Plain end and oval thimble style with snaphook attachment. Design control - NAVSEASYSKOM. White color.

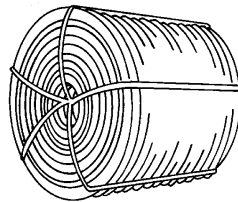


	Dia./In.	Lg/Ft
01-119-2159	1/2	12

	Dia./In.	Lg/Ft
01-119-9058	1/2	50

### MARLINE

Tarred Hemp. 2 ply balance twist construction.



	Brkg Str/Lb
00-240-2185	170
00-246-6134	95

### RATLINE

Tarred Hemp. 6 yarn, 3 strand construction.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-240-2019	1/4	600	2

### ROPE, FIBROUS

COTTON. Natural color. General purpose use, three strand construction.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-234-6763	1/8	120	667
00-231-9001	3/16	250	900
00-247-9224	1/4	420	533
00-068-7906	3/8	890	200
00-068-7907	1/2	1450	200

COTTON. Braided, mildew resistant, natural color. Used for flag halyards and distance lines.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-240-2161	1/4	500	800

MANILA HEMP. Natural color. General purpose use, three strand construction. Mildew resistant and preservative oil treated.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-231-9021 <sub>NP</sub>	1/4	600	917
00-231-9005 <sub>NP</sub>	5/16	1000	750
00-834-0708 <sub>NP</sub>	3/8	1350	200
00-231-2581 <sub>NP</sub>	3/8	1350	407

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-231-9007 <sub>NP</sub>	7/16	1750	400
00-238-7732 <sub>NP</sub>	1/2	2650	400
00-231-2572 <sub>NP</sub>	1/2	2650	900
00-231-9009 <sub>NP</sub>	9/16	3450	400
00-289-8616 <sub>NP</sub>	5/8	4400	200
00-290-5810 <sub>NP</sub>	5/8	4400	400
00-238-7734 <sub>NP</sub>	3/4	5400	400
00-231-9012 <sub>NP</sub>	13/16	6500	400
00-289-8617 <sub>NP</sub>	1	9000	200
00-231-9014 <sub>NP</sub>	1	9000	400
00-184-9807 <sub>NP</sub>	1-5/16	13500	300

NYLON stranded. General purpose use. Natural color. Where high strength or stretch is required, as in mooring, towing, and hoisting operations.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-270-8245*	3/16	950	33
00-928-3438	1/4	1500	200
00-618-0261	1/4	1500	750
00-641-8898	5/16	2600	750
00-968-1356	3/8	3300	200
00-641-8899	3/8	3300	540
00-753-2886	7/16	4800	400
00-968-1357	1/2	5800	200
00-641-8900	1/2	5800	400
00-560-7732	9/16	7600	400
00-968-1358	5/8	9800	200
00-753-2887	5/8	9800	400
00-141-7152	3/4	13200	600
00-753-2888	13/16	15300	400
00-752-8878	1	23200	400
00-174-1232	1-1/8	32000	400
00-752-8879	1-5/16	41300	200
00-752-8880	1-5/8	60000	200
00-542-3307	1-3/4	72000	200
00-542-3308	2	90000	200

\* Olive drab color.

NYLON, double braided. Natural color. General purpose use, where high strength and low elongation are required.

	Dia./In.	Brkg Str/Lb	Lg/Yd
00-106-9342	1/4	1785	200
00-106-9341	5/16	2835	700
00-931-8793	7/16	4500	—
00-946-0436	3/8	4095	200
00-106-9361	1/2	7245	200
00-106-9402	5/8	12600	200
00-471-9336	1	27825	200
00-519-7916	1-1/8	37800	200
00-106-9407	1-5/16	50400	200
00-106-9409	1-5/8	78110	200
00-106-9411	2	109675	200
00-519-7946	2-1/4	149800	200
00-003-6293	2-5/8	192600	200

# CLASS 4020

POLYAMIDE NYLON. Aramid overall. 4 strand, natural color. Non Spec Item.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-339-1571	1-5/16	96000	200
00-919-3443	3	23200	200
00-892-4028	8	164000	200

POLYESTER (Plastic). Used for in-haul, out-haul lines for; transfer at sea of personnel, light freight, and other applications. Where relative freedom from torque, high strength, high elongation, and maximum gripping surface are required. Issued on reels. Natural color, plated fabrication.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-028-3843	1/2	6400	70
01-028-3841	1	19000	420
01-028-3840	1-1/4	27500	210
01-028-3837	3-11/16	25000	400

POLYESTER (Plastic). Natural color, twisted fabrication, issued on reel.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-267-6226*	13/32	17000	—
00-630-4873	1/2	5000	400
00-142-6115	1	18500	400
00-630-4875	1-5/16	31000	200

\* Black.

POLYETHYLENE (Plastic). Yellow in color. 3 strand twisted, and comes on a reel.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-968-1352	1-1/2	3700	200

POLYPROPYLENE (Plastic). Yellow in color. Used where high strength, light weight, and floatability are required.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-968-1350	1/4	1000	200
00-530-0698*	5/16	1700	300
00-968-1351	3/8	2150	200
00-968-1353†	5/8	6000	200

Dia/In. Brkg Str/Lb Lg/Yd

\* Orange.  
† Olive drab.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-243-1554 <sub>NP</sub>	30	60	70
00-243-3156 <sub>NP</sub>	36	70	175

## TAPE, LACING AND TYING

Fabricated from continuous filament yarn. Mildew resistant. Put up in 1500 foot spool. Breaking strength 50 pounds. Used for; lacing and tying telephone switchboard cable forms, hookup wires, cable ends, aircraft cable bundles, electrical and electronic equipment, and electrical wire-harness assemblies.

Glass, Plastic Tetra fluorocarbon. Impregnated.

	Color	W/In.	Thk/In.
00-053-5738	Natural	.062	.016

Nylon, wax impregnated.

	Color	W/In.	Thk/In.
00-753-6555	Black	.090	.012
00-656-1125	Natural	.090	.012

Rubber, Synthetic.

	Color	W/In.	Thk/In.
00-080-9807	Natural	.050	.012
00-226-5024	Natural	.085	.014
00-956-4754	Natural	.090	.012

## TWINE, FIBROUS

Cotton, ball form. Twisted ply construction, natural finish, and color. Wrapping twine.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-233-5984	6	12	1000
00-233-5987	8	16	750
00-257-5390	24	48	250

Cotton, Seine Twine. 3 strand cable-lay construction.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-243-3152 <sub>NP</sub>	18	35	340

Fiber, Vegetable. Six strand twisted construction. Natural color with wax finish, mildew resistant. 32 pound minimum breaking strength. 600 yard length issued in tube form.

00-231-5886<sub>NP</sub>

Hemp, twisted construction. Natural color with polished wax finish. Size 60, 190 pound minimum breaking strength. 97 yard length, issued in ball form.

00-231-5870<sub>NP</sub>

Linen, 2-ply twisted construction. Natural color with polished wax finish. 29 pound breaking strength. 500 yard length, issued in ball form.

00-231-5868<sub>NP</sub>

Linen, 12-ply twisted construction. Natural color with wax finish. 60 pound minimum breaking strength. Mildew resistant. 370 yard length, issued in tube form.

00-231-5878<sub>NP</sub>

Polyamide Nylon, twisted construction. Used for tying; telephone switchboard cable forms, hookup wires, cable ends, a/c cable bundles, electrical and electronic wire harness assemblies. Suitable for applications at relatively high humidities. Issued in tube form.

Brkg

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-855-2144	32	1400	Natural
00-202-1924*	48	375	Black
00-527-9089	48	750	Natural
00-542-2780*	48	950	Natural

\* Wax coated - mildew resistant.



# CLASS 4030

## FITTINGS FOR ROPE, CABLE AND CHAINS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BALL END, WIRE ROPE, SWAGING

CRES.

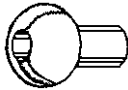
Ball end swaging terminals. Nominal dimensions listed in inches.

#### BALL END



	ID	OD
00-267-7111	.075	.190

#### SINGLE SHANK END.



	ID	Ball OD	Shank OD
00-273-3081	.075	.210	.130
00-272-7750	.106	.282	.168
00-273-3079	.141	.348	.221
00-132-9171	.171	.422	.259
00-272-7749	.203	.490	.295
00-132-9173	.267	.626	.403

#### DOUBLE SHANK END.



	ID	Ball OD	Shank OD
00-273-3080	.075	.205	.125
00-273-3073	.106	.275	.162
00-273-3076	.141	.343	.216
00-273-3074	.171	.417	.252
00-273-3075	.203	.485	.290
00-273-3078	.266	.625	.398

### CLAMP, WIRE ROPE, BOLTED

Copper Alloy, Zinc Coated Steel plates. Provided with bolts and nuts. Wire rope strand size accommodated. Length and width, of clamp, given in inches. Right hand or left hand lay.



#### 3-BOLT CLAMP

	Dia	Lg	W
00-864-9036	3/8-5/8	6-3/16	2-1/8

#### 6-BOLT CLAMP

	Dia	Lg	W
00-141-2529	5/16	5-1/2	3

#### 7-BOLT CLAMP

	Dia	Lg	W
00-253-9653	5/16	5	4-1/2

### CLAMP, WIRE ROPE, SADDLED

Carbon Steel, Zinc Coated. Diameter of wire rope accommodated shown in inches. Grooved surface, single grip, and single saddle.



	Dia
00-233-9565	1/8
00-233-9567	3/16
00-778-8899*	3/16
00-233-9568	1/4
00-243-4438	5/16
00-269-9761*	5/16
00-243-4439	3/8
00-233-9566	7/16
00-243-4440	1/2
00-243-4441	5/8
00-269-9764*	5/8
00-243-4442	3/4
00-243-4443	7/8
00-243-4444	1
00-243-4445	1-1/8
00-233-9578	1-3/8
00-233-9580	1-5/8
00-233-9581	1-3/4

\* Steel Composition, Passivated.

Steel material, Zinc Treated. Diameter of wire rope accommodated shown in inches. Grooved surface, 3 double grip, double saddle.

	Dia
00-042-7882	1/2

### CLAMP, WIRE ROPE, THREADED

Steel, Cadmium, or Zinc Coated. Diameter of wire rope accommodated shown in inches.

	Dia
00-838-3533	1/8
00-237-8741	3/8

### FASTENER, BEAD CHAIN

Designed to connect a bead chain to other items. Diameter and bead size shown in inches below.

Copper Alloy, Nickel Plated.



	Bead Size	Eye Dia
00-262-1573	1/8	.130
00-267-7024	3/16	.193

### FERRULE, WIRE ROPE

Copper material, treated with Cadmium. Accommodates 1/8 inch diameter material.

00-878-8693

CRES. Accommodates 3/64 inch diameter material. Outside diameter is 5/32 of an inch.

01-302-6043

### HOOK, CHAIN, S

Copper Alloy. Open ends type style. Upper and lower loop diameters shown in inches.

	Lg	Upper ID	Dia	Lower ID
00-272-7744	1.039	.375	.128	.453

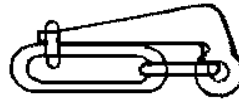
Steel, Zinc Coated. Used for troop and officer-type berths. Upper and Lower loop diameters shown in inches.

# CLASS 4030

	Lg	Upper ID	Dia	Lower ID
00-211-7310	2.000	.500	.312	.750

CRES, Passivated.

	Lg	Upper ID	Dia	Lower ID
00-618-3726	1.000	.250	.062	.500
00-801-5342	1.000	.250	.072	.500
00-821-8404	1.000	.250	.091	.500



## HOOK, GRAB

Steel. Accommodated material size in inches, and proof load in pounds given below.



	Dia/In.	Load/Lbs
00-274-3472	3/8	12,800

## HOOK, HOIST

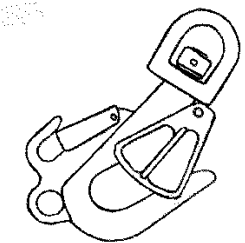
Steel Material, regular style with one round eye connection. Inward safety throat closure. Inside diameter shown in inches below.

	ID	Load Rating/Lbs
01-120-9481	.750	2000b
00-163-0800	1.250	4000
00-899-4510	1.250	4000
01-128-6152*	1.750	9000

\* Zinc surface treatment with swivel connection.

## HOOK, PELICAN

Rescue hook assembly. Small hook rated at 1000 pounds. Large hook rated at 3000 pounds. Accommodates 1 inch diameter material.



Steel Composition 316.

	Lg/In.	W/In.	Thk/In.
00-863-8546	5-7/16	3/4	5/16

Forged Zinc treated Steel. Double link body. Size accommodated, material diameter, main link stock diameter, and overall length shown in inches. NAVSEASYSKOM Drawing S1801-860234PC2T05-16.

## PLUG, LOCKING, DETACHABLE CHAIN LINK

Lead material with tapered end. 2 inch per foot taper.

	Mat Dia	Stock Dia	O/A Lg
00-266-7408	5/16	1/2	7-7/8
00-266-7413	5/8	1	14
00-266-7415	7/8	1-3/8	18-9/16

	Dia/In.	Taper Lg/In.	O/A Lg/In.
00-262-2066	.484	.375	1.000
00-262-2067	.531	.312	1.000
00-262-2068	.562	.500	1.375
00-262-2069	.625	.500	1.375
00-262-2070	.688	.500	1.375
00-262-2071	.750	.563	1.375
00-262-2074	.906	.625	1.375
00-262-2076	.969	.750	2.000
00-262-2078	1.094	.750	2.125
00-262-2079	1.188	.875	2.125
00-262-2082	1.375	1.125	2.875

## SHACKLE

### ROUND-PIN ANCHOR SHACKLE

General purpose. Galvanized Steel. Stock size and safe working load (SWL), shown in inches.

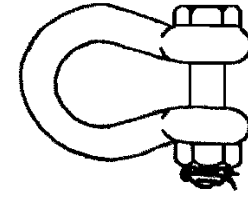


	Dia	Open W	Inside Lg	SWL
00-542-3178	1/4	15/32	1-1/16	710
00-542-3179	3/8	21/32	1-7/16	1590
00-542-3180	1/2	13/16	2	2830
01-163-6014	7/8	1-7/16	3-5/16	8650
00-542-3181	1-1/16	5/8	2-1/2	4420
00-542-3185	1-1/4	2	4-1/2	82500

### SAFETY ANCHOR SHACKLE

Steel Composition 1020, Zinc Treated.

General purpose. Stock size and safe working load (SWL) shown below. With safety bolt and nut, threaded with cotter pin. Dimensions in inches shown below.



Regular

	Dia	Open W	Inside Lg	SWL
01-378-4842*	3/8	21/32	1-1/16	—
00-804-2307	1/2	13/16	1-7/8	4000
00-804-2308†	5/8	1-1/16	2-3/8	6500
00-373-1121	3/4	1-1/4	2-3/4	6360
00-373-1123	7/8	1-7/16	3-5/16	8650
00-373-1128	1	1/16	4	11300
00-369-3921	1-1/4	2-1/16	4-11/16	16500

\* Forlock Pinhole.

† Non Spec Item.

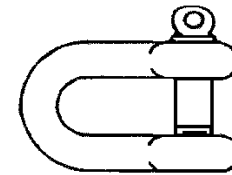
### High Strength

	Dia	Open W	Inside Lg	SWL
00-280-3453	1/2	13/16	1-7/8	6500
00-278-0700	5/8	1-1/16	2-1/4	—
00-278-0699	3/4	1-1/4	2-7/8	13800
00-278-0701	7/8	1-7/16	3-5/16	18700
00-279-4475	1	1-11/16	3-3/4	24400
00-278-0703	1-1/8	1-13/16	4-1/4	—
00-279-4476	1-1/4	2-1/32	4-11/16	—
00-278-0712	1-3/8	2-1/4	5-1/4	—
00-278-0714	1-1/2	2-3/8	5-3/4	—
00-369-2955	1-3/4	2-7/8	7	—
00-373-0939	2	3-1/4	7-1/2	—
00-369-2997	2-1/2	4-1/8	10-1/2	—

## SAFETY CHAIN SHACKLE

Steel Composition 1020.

General purpose. Hex head bolt with cotter pin. Stock size and safe working load (SWL) shown below. Dimensions in inches.



Regular

	Dia	Open W	Inside Lg	SWL
00-373-0927	5/8	1-3/32	2	4420
00-377-1170	3/4	1-1/4	2-3/8	6360
00-377-1171	7/8	1-7/16	2-7/8	8650

### High Strength

	Dia	Open W	Inside Lg	SWL
00-369-4033	1/2	13/16	1-5/8	6500

SCREW PIN ANCHOR SHACKLE. With shoulder eye. General purpose. Galvanized

# CLASS 4030

Steel. Stock size and safe working load (SWL) shown below.



Steel, Zinc Coated.

	Dia	Open W	Inside Lg	SWL
00-778-8967*	1/4	15/16	1-1/8	710
00-185-0481	1/4	15/32	1-1/8	710
00-282-4885	5/16	17/32	1-1/4	1060
00-270-5480	3/8	21/32	4-7/16	—
00-185-0482	3/8	21/32	1-7/16	1590
00-185-0490	7/16	23/32	1-11/16	2170
00-270-5482†	1/2	13/16	1-15/16	—
00-185-0489	1/2	13/16	1-7/8	2830
00-169-9296	9/16	7/8	2-1/8	3580
00-270-5483†	5/8	1-1/16	2-1/2	—
00-149-5574	5/8	1-1/16	2-13/32	4420
01-099-2692	5/8	1-1/16	2-3/8	—
00-270-5484†	3/4	1-1/4	3	—
00-242-5575	3/4	1-1/4	2-27/32	6360
00-270-5485†	7/8	1-7/16	3-1/4	—
00-162-9668	7/8	1-7/16	3-1/4	8650
00-270-5486†	1	1-11/16	3-3/4	—
00-290-1388	1	1-11/16	3-3/4	11310
00-185-0487	1-1/8	1-13/16	4-1/4	13360
00-169-9297‡	1-3/8	2-1/4	5-1/4	19800
00-373-1327	1-1/2	2-3/8	5-3/4	—
00-169-9298	1-1/2	2-3/8	5-3/4	23740
00-369-3992	1-5/8	2-5/8	6-1/4	—
00-160-1262	1-3/4	2-7/8	7	—
00-369-3993	1-3/4	2-7/8	7-1/4	—
00-185-0488	2	3-1/4	7-3/4	42220

\* CRES. Nonmagnetic, with forelock pin hole.

† CRES.

‡ 1.5 inch diameter closure pin.

Steel Composition 1020, Zinc Coated. Screw pin with shoulder eye. Dimensions in inches below.

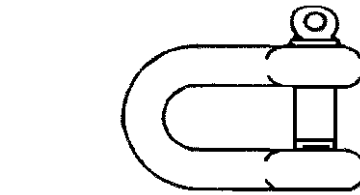
Regular

	Dia	Open W	Inside Lg	SWL
00-373-0968	3/16	3/8	7/8	520
00-369-3692	1/2	13/16	1-7/8	2830
00-369-3719	3/4	1-1/4	2-7/8	6360
00-377-1327	1-1/4	2-1/32	4-11/16	16500

High Strength

	Dia	Open W	Inside Lg	SWL
00-369-3962	1/2	13/16	1-7/8	6500
00-369-3963	5/8	1-1/16	2-25/64	10000
00-369-3973	3/4	1-1/4	2-3/4	13800
00-369-3988	7/8	1-7/16	3-1/4	18700
00-373-1317	1-1/4	2-1/32	4-21/32	36000

SCREW PIN CHAIN SHACKLE. With shoulder eye and screw pin. Stock size and safe working load (SWL), shown below. Dimensions in inches below.



Steel Composition 1020, Zinc Coated.

Regular

	Dia	Open W	Inside Lg	SWL
00-273-9275	1/4	15/32	7/8	710
00-286-5433	3/8	21/32	1-1/4	—
00-373-0902	1/2	13/16	1-5/8	2830
00-185-0476	5/8	1-1/16	2	4420
00-377-1162	3/4	1-1/4	2-3/8	6360
00-377-1163	7/8	1-7/16	2-5/16	8650

High Strength

	Dia	Open W	Inside Lg	SWL
00-279-4477*	5/8	1-1/16	2	—
00-369-3905	5/8	1-1/16	2	10000
00-373-0997	3/4	1-1/4	2-3/8	13800
00-278-0698*	7/8	1-7/16	2-13/16	—
00-369-3909	7/8	1-7/16	3	18700
00-373-0998	1	1-23/32	3-3/16	24400
00-369-3911	1-1/4	2-1/32	3-15/16	—
00-377-1406*	1-3/4	2-7/8	5-1/4	—
00-369-4045*	3-1/2	5-3/4	10-1/2	—

\* Cotter pin and nut locking device.

Copper

	Dia	Open W	Inside Lg	SWL
00-272-8836	5/16	17/32	1	1300
00-272-8835	7/16	23/32	1-7/16	2750

Wire rope style shackle. CRES. Plain round eyelet style.

	Dia	Open W	Inside Lg	SWL
00-916-8342	3/32	3/16	1/4	—

## SOCKET, WIRE ROPE

POURED TYPE

Closed Socket

For use where the full strength of the wire rope has to be utilized. Diameter of wire rope accommodated shown in inches.

Galvanized Steel, Zinc Coated.



	Dia	O/A Lg
00-221-0766	5/16	4-9/16
00-221-0768	7/16	5-7/16
00-221-0771	5/8	6-5/16
00-221-0772	3/4	7-9/16

	Dia	O/A Lg
00-234-6245	7/8	8-3/4
00-221-0777	1	9-7/8
00-221-0778	1-1/4	12-1/8

Open Socket

Bolt and cotter pin furnished. Diameter of wire rope accommodated. Bolt hole diameter and overall length shown in inches.

Galvanized Steel, Zinc Coated.

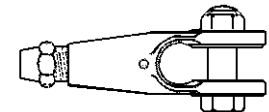


	Dia	Bolt Hole Dia	O/A Lg
00-162-5427	3/8	13/16	4-5/8
00-162-5428	1/2	1-1/16	5-1/8
00-162-5429	5/8	1-1/4	6-3/4
00-249-2987	3/4	1-3/8	7-15/16
00-249-2988	7/8	1-5/8	9-1/4
00-162-5430	1	2-3/32	10-9/16
00-162-5431	1-1/8	2-11/32	11-13/16
00-249-2992	1-3/8	2-1/2	13-3/16
00-162-5432	1-1/2	2-7/8	15-1/8

Open socket

Length 1/4 inch by 9/16 inch width. Bolt 1/2 inch diameter. With wedge, nut, and bolt. Material accommodated. Diameter shown in inches. Non Spec Item.

Copper Alloy



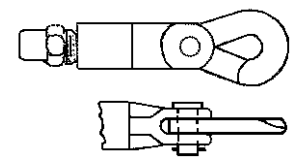
	Dia	Bolt Hole	O/A
00-316-2484	5/16	1/2	4-1/4

THREADED LOCK SLEEVE TYPE

Designed for 6 strand wire rope. Diameter of wire rope accommodated shown in inches.

Lifeline Sister Hook Style. Wedge designed for 6 strand fiber center ropes.

Copper Alloy

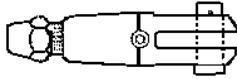


	Dia	Bolt Hole	O/A
00-184-9818	7/16	5/8	7-7/8
00-184-9819	9/16	5/8	8-5/8

# CLASS 4030

Standard Open Clevis Style. With wedge accommodation.

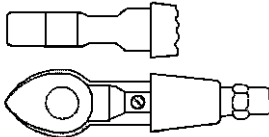
Steel, Cadmium, or Zinc finish.



		Bolt Hole	O/A
00-264-6499	5/16	7/16	4-1/4

Standard Clevis. Closed style. Wedge provided. Diameter of wire rope accommodated shown in inches.

Steel, Zinc Coated.



		Bolt Hole	O/A
00-104-9084	1/2	29/32	5-9/16

Steel, SAE1020. Wedge not provided.

		Bolt Hole	O/A
00-071-5184	2-11/16	—	—

## SWAGING SLEEVE, WIRE ROPE

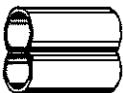
Diameter of wire rope and minimum overall length shown in inches.

### FIGURE EIGHT

Aluminum

	Dia./In.	Lg./In.
01-105-7341	1/16	3/8
01-113-5973	3/16	7/8

Copper, Zinc Coated.



	Dia./In.	Lg./In.
01-257-7788	3/64	7/16
00-431-5536	1/16	3/8
01-124-8201	1/16	3/8
01-234-3281	3/32	7/16
00-431-5537	3/32	7/16
00-132-9163	1/8	9/16
00-431-5538	11/64	5/8
00-132-9162	3/16	1
00-264-6502	5/16	1-1/4
00-431-5539	7/32	7/8
00-431-5540	1/4	1-1/8

Copper Alloy

	Dia./In.	Lg./In.
01-184-3881	1/32	3/16
01-021-6339	1/16	3/8
01-137-7169	1/16	7/16
01-021-6340	5/16	1-1/16
01-119-4535	3/8	1-5/16

Copper

	Dia./In.	Lg./In.
01-137-7168	3/32	13/32
01-112-6239	5/16	1-1/8
01-238-8945	1/2	13/16
01-127-8698	3/8	1-5/16
01-209-3832	1/2	1-15/16
01-166-3719	5/8	2-7/16

Steel Composition 304 or 305.

	Dia./In.	Lg./In.
01-178-2154	1/32	5/16
01-088-2952	1/16	7/16
00-877-5305	1/16	15/32
01-127-9488	3/64	7/16
01-142-0456	3/32	9/16
00-145-5721	1/8	9/16
01-209-7478	3/16	1
00-052-7072	1/4	3/4
01-322-5115	3/8	1-11/16

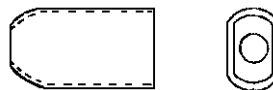
### ROUND TAPERED

Copper, Tin Plated.



	ID./In.	OD./In.	O/A Lg./In.
00-065-5088	1/16	13/64	7/32
00-762-6428	5/32	15/64	9/16

### OBLONG TAPERED



CRES. Non Spec Items.

	Dia./In.	H./In.	W./In.	Lg./In.
01-022-5667	1/8	3/8	1/4	7/16
01-022-3164	5/16	1-1/8	3/4	1-5/8
00-753-1108	3/8	1-1/8	3/4	1-5/8
01-022-3163	7/16	1-7/16	1	2
00-753-1109	1/2	1-7/16	1	2
00-926-0617	5/8	1-11/16	1-7/16	2-5/16
00-753-1110	5/8	1-3/4	1-1/4	2-3/8
01-167-6283	9/16	1-3/4	1-3/16	2-1/4
00-753-1111	3/4	2-1/8	1-7/16	3-1/16
00-926-0619	3/4	2-1/8	1-11/16	2-3/4
00-926-0620	7/8	2-3/8	1-7/8	3-1/4
00-926-0644	1	2-11/16	2-1/8	3-7/8
00-753-1113	1	2-7/8	1-7/8	3-3/8

## SWIVEL, LINK AND JAW

Steel, Cadmium Coated. Reach length 4-1/4 inches. Chain diameter given below. Diameter,

inside width, and effective length shown in inches.

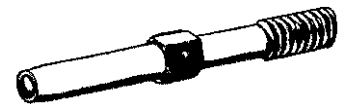
### OVAL AND FORK ENDS



	Dia./In.	W./In.	Lg./In.
00-169-0816	1/2	1-1/4	1-5/16
00-401-8581	1/2	1-1/2	1-5/16
01-307-2489	3/4	2	1-3/4
00-720-4171	7/8	2-1/4	2-1/8

## TERMINAL, WIRE ROPE, STUD

Swaging Wire Rope Terminal. Passivated.



Steel Composition 303SE, 305.

### RIGHT HAND UNF THREAD.

	Dia./In.	Thd Size/In.	Lg./In.
00-580-6792	3/32	10-32	2-27/32
00-580-6794	3/32	10-32	3-3/4
00-132-9215	1/8	1/4-28	3-5/32
00-580-6787	5/32	1/4-28	3-7/16
00-580-6785	5/32	1/4-28	4-5/16
00-580-6783	3/16	5/16-24	3-3/4

### LEFT HAND UNF THREAD.

	Dia./In.	Thd Size/In.	Lg./In.
00-580-6797	1/16	6-40	2-5/8
00-580-6791	1/8	1/4-28	3-5/32
00-580-6793	3/32	10-32	2-7/8
00-580-6795	3/32	10-32	3-3/4
00-580-6786	5/32	1/4-28	3-7/16
00-580-6782	3/16	5/16-24	3-3/4

### RIGHT HAND UNF THREAD.

	Dia./In.	Thd Size/In.	Lg./In.
00-132-9201	1/16	6-40	2-31/64
00-132-9203	3/32	10-32	2-29/32
00-132-9199	1/8	1/4-28	3-11/32
00-132-9196	5/32	1/4-28	3-41/64
00-132-9194	3/16	5/16-24	4-1/64
00-273-9279	5/16	1/2-20	5-27/32

### LEFT HAND UNF THREAD.

	Dia./In.	Thd Size/In.	Lg./In.
00-132-9200	1/16	6-40	2-7/16
00-132-9202	3/32	10-32	2-15/16
00-132-9192	1/4	3/8-24	4-15/16
00-132-9195	3/16	5/16-24	4-1/64

## TERMINAL, WIRE ROPE, SWAGING

CRES, Passivated. Diameter of wire rope accommodated, shown in inches.

### EYE END STYLE.



	Dia	Bolt Hole Dia
00-958-7093	1/16	.191
00-082-0656	3/32	.191
00-132-9181	1/8	.191
00-132-9180	5/32	.250
00-132-9179	3/16	.314

### FORK END STYLE.



	Dia	Bolt Hole Dia
00-958-8038	1/16	.191
00-082-0655	3/32	.191
00-958-8039	1/8	.191
00-273-3084	5/32	.250
00-958-8040	3/16	.314

BALL END NAS 287-55-4.CRES, Passivated.

Steel Composition 303SE, 305.



	Dia/In.	Bolt Hole/Dia/In.
00-273-3611	.144	.144

## THIMBLE, ROPE

Steel, Zinc Coated.

Type 1 thimbles, are intended for use with fiber

rope only. Type 2 thimbles, light, are intended for use, where the full tension of the rope is not developed, in normal use and for fiber rope. Type 3 thimbles, heavy, are intended for use, with high-grade plow-steel wire rope, where heavy commercial thimbles of the weight and specified dimensions are considered satisfactory.

### TYPE 1, SPLIT ROUND. Fiber Rope Thimbles.

	Dia/In.	ID/In.	OD/In.
00-282-2509	1/2	3/4	1-1/4
00-262-2048	5/8	15/16	1-1/2
00-262-1597	3/4	1-1/8	1-3/4
00-262-2049	7/8	1-3/16	2
00-270-8695	1	1-1/4	2-1/4
00-262-2051	1-5/16	1-3/4	3

### TYPE 2, SPLIT OVAL. Light Fiber and Wire Rope Thimbles.



	Dia/In.	I/W/In.	I/Lg/In.
00-202-3339	3/16	11/16	1-1/4
00-266-0058	1/4	11/16	1-1/4
00-266-0085	11/32	1	1-5/8
00-282-2512	17/32	1-1/8	1-7/8
00-262-1791	5/8	1-3/8	2-1/4
00-269-9775	5/8	1-3/4	3-1/4
00-266-0086	1	2-1/8	3-5/16

### TYPE 3, SPLIT OVAL. Heavy Wire Rope Thimbles.

	Dia/In.	I/W/In.	I/Lg/In.
00-266-0062	1/4	3/4	1-5/8
00-266-0063	5/16	1	1-7/8
00-266-0064	3/8	1-1/8	2-1/8
00-266-0065*	7/16	1-1/4	2-1/4
00-266-0066	1/2	1-1/2	2-5/8
00-266-0067	9/16	1-1/2	2-3/4
00-270-8708	5/8	1-3/4	3-1/4
00-270-8709	3/4	2	3-3/4
00-266-0070	7/8	2-1/4	4-1/4
00-266-0071	1	2-1/2	4-1/2
00-266-0074	1-1/8	2-7/8	5

\* Non Spec Item.

Heavy Duty Wire Rope Thimble. CRES, Passivated.

### SPLIT OVAL

	Dia/In.	I/W/In.	I/Lg/In.
00-269-9771	1/4	3/4	1-5/8
00-269-9772	5/16	1	1-7/8

AN100C. Used for ground support equipment. CRES, Passivated.

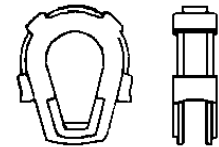
### SPLIT OVAL

	Dia/In.	I/W/In.	I/Lg/In.
00-262-1890	7/64	23/64	45/64
00-262-1891	5/32	15/32	51/64
00-171-4912	3/16	1/2	1
00-262-1894	1/4	45/64	1-13/32
00-272-7745	3/8	1	2
00-262-1896	7/16	1-1/8	2-1/4
00-262-1897	1/2	1-1/4	2-1/2



Copper Alloy

Oval, with lugs and cover plates style. Marked, "FOR PLASTIC ROPE". Thimble size shown below. 41,200 pounds test load. 4 inch circumference. Accommodated.



	Dia/In.	I/W/In.	I/Lg/In.
00-814-5781	7/16	7/8	1-7/16
00-814-5790	9/16	1	1-23/32
00-814-5825	15/16	1-1/4	2-3/8
00-814-5827	1	1-5/8	2-25/32
00-814-5831	1-1/4	1-7/8	3-9/32
00-814-5847	1-5/16	2-1/8	3-19/32
00-814-5851	1-5/8	2-5/8	4-15/32



# GROUP 41

## REFRIGERATION, AIR CONDITIONING, AND AIR CIRCULATING EQUIPMENT

### CLASS 4110

#### REFRIGERATION EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### DISPENSER, DRINKING WATER, MECHANICALLY COOLED

FREE STANDING and WALL HANGING dispensers. Corrosion Resistant Steel material. Hermetically sealed air cooling condenser. Water supply line dispensing pressure. 115V AC, 60 Hz, single phase. Freon-12 coolant. Refrigerated storage space is not provided.

FREE STANDING dispenser with bubbler draw-off capacity to approximately 9.5 gallons per hour.

	H/In.	W/In.	Dp/In.
00-255-8760	44.000	25.500	25.500

INVERTED BOTTLE dispenser. Gravity fed dispensing with a faucet draw-off device. Dispenses .95 gallon per hour. Designed for fresh water. Steel cabinet with baked Enamel finish. 115V, AC, 60 Hz, single phase. Uses Freon 12 or 22 coolant.

	H/In.	W/In.	Dp/In.
00-203-0565	41.000	25.500	25.500

WALL HANGING dispenser, with bubbler draw-off capacity to approximately, 10 gallons per hour.

	H/In.	W/In.	Dp/In.
00-782-5125	32.000	25.500	25.500

#### PLATE, FRONT

For a model 414 ice cream maker.

01-169-8436

#### REFRIGERATOR-FREEZER, MECHANICAL, FOOD

Steel cabinet with baked Enamel finish. White color. 120V AC, 60 Hz. Electric motor power source. Unit has two door access. Capacity listed in cubic feet.

	Cap.	W/In.	Dp/In.	Ht/In.
01-302-3711*	14.000	39	29	72

\* 2 condensers. 115V AC, 60Hz. For shipboard use.





# CLASS 4130

## REFRIGERATION AND AIR CONDITIONING COMPONENTS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### FILTER ELEMENT, AIR CONDITIONING

Style A1 rectangular. Overall width 9.938 inches minimum, 10.062 inches maximum. Body thickness 2.000 inches minimum, 2.124 inches maximum. Body overall length 14.438 inches minimum, 14.562 inches maximum. Steel filtering medium and steel frame. Crimped first filtering media, mesh second filtering media. Maximum air flow 254.0 cubic feet per minute. Handles provided on two adjacent sides of frame.

00-595-0135

Style A1 rectangular. Overall width 19.438 inches minimum, 19.562 inches maximum. Body thickness 2.000 inches minimum, 2.062 inches maximum. Body overall length 19.438 inches minimum, 19.562 inches maximum. Aluminum filtering medium and aluminum frame. Maximum air flow 690.0 cubic feet per minute. Folding type handles provided on two adjacent sides of frame.

00-640-0238

Style A1 rectangular, aluminum filtering medium, mesh single filtering media. Measurements in inches nominal below.

	O/A W	Body Thk	Body O/A Lg
01-051-0122	14.200	0.350	16.560

### FILTER MEDIA, AIR CONDITIONING

Style A1 rectangular, corrugated first filtering medium, matted second filtering media. Measurements in inches nominal below.

	O/A W	Body Thk	Body O/A Lg
01-103-8339	25.320	0.875	26.190

### FILTER-DRIER, REFRIGERANT

Molecular sieve and silica gel desiccant type, nonrefillable, straight shape. Desiccant capacity 3.000 cubic inches. Compressor power rating 2.000 horsepower. Steel shell, lacquer surface treatment. Threaded external tube first and second end. Union connection, 42 flared style. Tube outside diameter 0.250 inches nominal, UNF thread series.

	O/A Lg/In.	Shell Lg/In.	Shell Dia/In.
00-824-9197	4.188	2.500	1.750



## CLASS 4140

### FANS, AIR CIRCULATORS, AND BLOWER EQUIPMENT

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

#### FAN, CIRCULATING

Non oscillating. Plastic blade. Electric motor, two speed. 115 Volts, AC. Single phase. 60.0 Hertz. Air flow rate, 2500.00 cubic feet per minute nominal. Static pressure at specified air flow rate, 0.0 inches of water.

00-961-5480

Oscillating. Style 37, fixed. Diameter, 12.000 inches nominal. Plastic blade. Direct drive, clockwise rotation. Electric motor, 3 speed. Fully inclosed. 0.114 horsepower. 115.0 Volts, AC. Single phase, 60.0 Hertz. Outward flow. Includes safety impeller guard.

00-256-9912

Oscillating. Style 37 fixed. Diameter, 16.000 inches nominal. Height, 27.5000 inches nominal. Steel housing with Enamel surface treatment. Direct drive. Counterclockwise rotation. Three speed, electric. Fully inclosed. Ambient temperature at full rated power, 40.0 degrees Celsius. 115.0 Volts, AC. Single phase, 60.0 Hertz. Static pressure at specified air flow rate, 0.0 inches of water. Dustproof. Outward air flow. 2 unthreaded holes for mounting. Includes safety impeller guard.

00-851-9319

Non oscillating. Style 38A Portable and adjustable. Shortest height, 54.000 inches nominal and extended height, 84.000 inches nominal. Plastic Phenolic blade with clockwise rotation. Two speed. Fully inclosed. 0.349 Horsepower. 115.0 Volts, AC. Single phase, 60.0 Hertz. Static pressure at specified air flow rate, 0.0 inches of water. Includes safety impeller guard.

00-833-5068

#### FAN, TUBEAXIAL

Style 31 fixed plastic polycarbonate blade with aluminum housing. Direct drive counterclockwise rotation, electric motor single speed. Drive shaft

fully inclosed ball bearing. Ambient temperature 125.0 degrees Celsius, 0.017 horsepower, RPM 3300.0. Single phase, air flow rate 113.0 cubic feet per minute nominal. Inward flow direction. Mounting facility 2 flange and 8 unthreaded holes.

	Lg/In.	Housing ID/In.
00-236-0730	1.500	4.500

Style 31 fixed aluminum overall. Direct drive clockwise rotation, electric motor single speed. Drive shaft fully inclosed ball bearing. Power rating 60.0 watts, RPM 11000.0. Two phase, air flow rate 40.0 cubic feet per minute nominal. Inward flow direction. Mounting facility 1 flange, removable wire leads.

	Lg/In.	Housing ID/In.
01-255-9276	0.875	3.562

#### FAN, VANEAXIAL

Style 30 aluminum alloy overall. Direct drive counterclockwise rotation, electric motor single speed. Drive shaft fully inclosed ball bearing. Ambient temperature 0.0 degrees Celsius and 90.0 degrees Celsius, 1.139 horsepower, RPM 11500.0. Three phase, air flow rate 550.0 cubic feet per minute nominal. Inward flow direction. Mounting facility 2 flange and 8 unthreaded holes.

	Lg/In.	Housing ID/In.
00-432-0330	5.800	4.320



# GROUP 42 FIRE FIGHTING, RESCUE, AND SAFETY EQUIPMENT; AND ENVIRONMENTAL PROTECTION EQUIPMENT AND MATERIALS

## CLASS 4210 FIRE FIGHTING EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### ADAPTER, STRAIGHT, PIPE TO HOSE

Copper Alloy Overall. NPT pipe thread at one end, and NPSH hose thread at the other end.

#### MALE PIPE TO MALE HOSE

Hex Wrenching.

	NPT	NPSH
00-277-3376	1	1-1/2
00-277-3377	2	1-1/2
00-277-3378	2-1/2	1-1/2

Rocker Lug Wrenching.



	NPT	NPSH
00-289-1305	2-1/2	2-1/2 NH

#### FEMALE PIPE TO FEMALE HOSE

With Plug and Chain.



	NPT	NPSH
00-355-4862*	2-1/2	2-1/2 NH

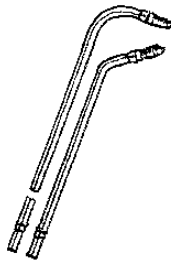
\* Non Spec Item.

Gasket seal, swivel nut.

	NPT	NPSH
01-037-6265	1-1/2	1-1/2

### APPLICATOR, NOZZLE

Enclosed, Copper Nickel Strainer. One end fitted with low velocity fog head. Other end fitted with, bayonet joint which snaps into position in the nozzle. Used with three position water nozzles. Head end of tubing for 4 foot size applicator, bent to a 60 degree angle. 10 foot and 12 foot sizes, bent to a 90 degree angle. Permits the fire fighter to reach over and around obstructions.



	Dia/In.	Lg/Ft
00-372-0866	2-1/2	12

### AX, PICK HEAD

Carbon Steel. Designed for use by fire fighters. Head 12 inch length, 5 inch cutting edge and a 34-1/2 inch long handle.



00-142-4949	6 lb head
-------------	-----------

### BALL, VALVE, PORTED

Copper alloy, chromium surface treatment, 3 tee ports. Spherical diameter 2.500 inches nominal. Port diameter 2.500 inches nominal. 3 stems, 3 outlets. One 2 1/2 inch male valve, two 1 1/2 inch male valves. Length 10 1/2 inches. Weight 23 pounds. Cast brass body, nickel plated balls, bonded neoprene seats with carrying strap.

01-038-6001

### BELT, QUICK RELEASE

For fire hose. Nylon with CRES fittings. 1 inch width by 32 inch length.

01-092-5652

### BLANKET, FIRE

Glass fiber. 174 inch length by 180 inch width, stitch binding.

01-306-7827

### BRACKET, FIRE EXTINGUISHER

For use with 15 pound Carbon Dioxide (CO2) extinguishers. Cam release type. NAVSEA Drawing 810-1335843.

00-268-9730

Wall hook type, vertical mounting. Used with 15 pound CO2 extinguishers.

00-262-7070

Vertical mounting, left and right hand installation. Designed for CO2 types.

01-112-1097 1 qt

### CARTRIDGE, GAS PRESSURE

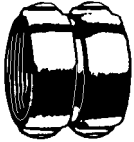
Navy Type, Magnetic. Used with 18 pound extinguishers.

# CLASS 4210

00-935-1669

## COUPLING, HOSE

Copper Alloy Overall. Double female type. Both ends identical, with swivels, rocker arms, and gasket seals.



500 PSI maximum operating pressure.

00-288-8816 2-1/2 NH x 2-1/2 NH

600 PSI maximum operating pressure.

NPSH

00-307-4699 1-1/2

## CYLINDER, COMPRESSED GAS

CO2 shatterproof cylinder. Rigid neck. Valve furnished. Maximum operating pressure 2015 PSI. Red color.

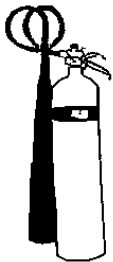
Replacement cylinder for CO2 Fire Extinguisher, 4210-00-203-0217. Internal 1-11-1/2 NPT threads. 15 pound capacity. 6.5 inches by any acceptable height.

00-151-9772

## EXTINGUISHER, FIRE, CARBON DIOXIDE

Portable hand actuated type. With permanent shut-off valve. Charged, nonshatterable cylinder, for class 'B' and 'C' fires.

Shipboard use. Squeeze-grip control device.



CO2  
Cap./Lbs

00-203-0217 15  
00-096-2668 15

UL approved type. Conforms to all requirements of Underwriter's Laboratories Standard, UL 154. Capacity, UL classification, and rating listed. With wall bracket.



00-270-4512 5 lb CO2 cap. 2 B,C  
00-202-7858 15 lb CO2 cap. 10 B,C

## EXTINGUISHER, FIRE, DRY CHEMICAL

Purple powder, potassium bicarbonate extinguishing agent. For use in Dry Chemical Extinguisher, 4210-00-843-2790. Free flowing, noncaking, moisture-proof, and nonconductor of electricity. 50 pound pail.

00-752-9343

Hand actuated. For Class B and C fires. Purple powder. Potassium bicarbonate dry chemical extinguishing agent. Charged and rechargeable. UL approved. With mounting brackets.

Stored Pressure Model with one mounting bracket.



Cap./Lb

00-775-0127 5  
00-889-2492 20

Navy Approved.

18 pound capacity.

00-935-1656 Nonmagnetic  
00-989-4589\* Magnetic  
\* Recommended by Naval Safety Center for submarine use.

27 pound capacity.

00-413-4529 Magnetic

BROMOTRIFLUOROMETHANE. Nonrefillable. To be used to combat incipient petroleum-electric fires. One time usage. Vaporizing liquid. 7 pounds 11 ounces overall weight. 13-1/2 inch height by 3-1/2 inch diameter. Hand held. Nonshatterproof cylinder. Penetrating seal type valve. Manufacturer bracket furnished. Capacity in pounds shown below.

Cap./Lb

00-555-8837 2-3/4

## EXTINGUISHER, FIRE, FOAM

Stored pressure type. Generates a low expansion foam, using AFFF and fresh water. 2-1/2 gallon capacity. Red color. Includes 1 vertical mounting bracket and 1 foam charge.

01-147-1091

## EXTINGUISHER, FIRE, WATER

Stored pressure type. Stainless Steel shell. May be charged with plain drinking water or other extinguishing agent. For use only in class 'A' fires. Furnished with carrying handle, bracket, and suitable valve to introduce the specific charging pressure.



Cap./Gal

00-720-1815 2-1/2

## FOAM LIQUID, FIRE EXTINGUISHING

Aqueous film forming foam, AFFF (light water). A noncorrosive, nontoxic chemical concentrate. When properly proportioned, at 6 parts concentrate to 94 parts of water and properly aerated, it will develop a foaming fire extinguishing agent, that will extinguish class "B" fires.

5 gallon can.

01-056-8343

55 gallon container. A composite comprised of a plastic insert and a steel drum overpack.

01-056-0883

Fresh or Synthetic salt water mix. Foam produced at rate of 125 gallons per one gallon of solution. For use with 4210-00-372-0233 and 4210-00-225-6225. 5 gallon pail with snap on type closures.

## HANDLE, NOZZLE

Used on fire fighting trucks. Bronze. Square tapered hole, .500 inches to .600 inches taper with pointer and stop. 13.000 inches overall

length. 1.000 inch width by .500 inch thick handle.

00-391-5500

## HEAD, SPRINKLER, FIRE PROTECTION

### SPRAY TYPE

For washdown. Installed water system sprinkler head, with 1/2-14 NPT male end connection.

		Orifice Dia./In.
00-541-6228	Bronze	.323
00-859-6594*	Brass	.500

\* With Union nut and tailpiece for 1/2 inch butt weld pipe connection.

## HEAD, SPRINKLER, FIRE PROTECTION, FOAM WATER

Designed to produce a conical homogeneous spray. 6-1/2 inch length by 2-1/4 inch diameter. With deflector plate, and an orifice larger than 1/4 inch Inlet connection. 1/2 NPT male, installed positioned pendant.

00-022-3082

## HOOD, ANTI-FLASH, FIREMENS

NFPA certified.

01-493-4694

## HORN AND VALVE ASSEMBLY

Used with 1/2 inch hose-reel system. 46 inch length.



00-494-2522

## HOSE ASSEMBLY, METALLIC

Steel tube with a braided CRES wire cover. Hose sizes are 13/64 inch inside diameter, 1/4 inch outside diameter, 14-1/2 inch length. Maximum operating pressure not rated. Hydrostatic test pressure 3250 PSI. Burst pressure 8000 PSI.

01-142-2630

## HOSE ASSEMBLY, NONMETALLIC

Consists of a Synthetic Rubber tube with a Steel wire reinforcement and a Synthetic cover. A suitable friction ply or braid may be used over the wire reinforcement. Hose sizes are 5/16 inch inside diameter, 11/16 inch outside diameter, 34 inch length. Used with CO2 Fire Extinguisher 4210-00-203-0217.

00-372-0854

Consists of; a Synthetic Rubber tube, with braided Steel wire, and Synthetic Rubber cover. Recoil preventer on first end. Hose sizes are; 1/2 inch inside diameter, 31/32 inch outside diameter, 50 foot length. Maximum operating pressure, 1000 PSI. Temperature rating, minus 20 degrees Fahrenheit to 200 degrees Fahrenheit.

00-372-0853

Used on pumping engines and where conditions require protection against wear by the extra jacket. Synthetic Rubber tubing with 2 layers of woven cotton cord. Hydrostatic test pressure 600 PSI.

Female to Male. 1-1/2 inch Brass couplings with 1-1/2 inch NPSH threads. Abrasion and cold resistant, and waterproof. Burst pressure 900 PSI. Orange color. Includes gaskets.

	Lg/Ft
01-264-3871	25

Female to Male. 1-1/2 inch Brass couplings with 1-1/2 inch NPSH threads. Abrasions and cold resistant and waterproof. Orange color. Includes 3 gaskets.

	Lg/Ft
01-131-0249	50

Female to Male. 4 inch Brass couplings with 4 inch NH threads. Oil resistant. Maximum operating pressure 300 PSI. Burst pressure 1200 PSI.

	Lg/Ft
01-220-6648	50

Female to Male. 2-1/2 inch Brass couplings with 2-1/2 inch NH threads. Quick disconnect type.

	Lg/Ft
01-131-0247	50
01-273-4727*	1-1/2

\* Abrasion/ozone resistant; Orange color.

Used at fire hydrants, stand pipes, reels, and where abrasion of the jacket is not severe. Synthetic Rubber tubing, with 1 layer of woven Cotton cord. Hydrostatic test pressure 300 PSI. Burst pressure 600 PSI. Non Spec Item.

Female to Male. 1-1/2 inch Brass couplings, with 1-1/2 inch NH threads.

	Lg/Ft
00-892-5494	50

Rubber Chloroprene hose covered with Rubber impregnated fabric. Second layer of coiled helix Steel and an outer layer of molded Chloroprene Rubber. Hydrostatic test pressure 100 PSI. Burst pressure 300 PSI.

Female to Male. 2 inch Brass couplings, with 2 inch NPSH threads.

	Lg/Ft
00-776-0657	20

Type B hose, for use with aqueous film forming foam. Conforming to Mil-F-24385, fresh water, or potassium dry chemical conforming to Fed Spec O-D-1407. Hose assemblies intended to be mounted on reels. Constructed with rubber tubing and first layer of polyester cord or aramid fibers. A second layer of aramid fibers and outer layer of rubber. Noncollapsible, heat resistant. 250 PSI maximum operating pressure. Female to male, Bronze threaded couplings.

	Dia./In.	Lg/Ft
01-075-7324	1-1/2	50
01-076-3289	1-1/2	125
01-075-7325	1-1/2	150

### Commercial types

For fresh or salt water use. Rubber tubing covered by woven Polyester fiber cord. Abrasion resistant. Female and male threaded Brass couplings. RH, NH threads. 50 foot length. Operating pressure not rated.

	Dia./In.
00-935-5432	1-1/2
00-935-5433	2-1/2

For fresh water use. Rubber tubing covered by first layer of Rubber impregnated fabric; second layer helix Steel coil; outer layer of molded Rubber. Fuel, oil, and ozone resistant.

Female to Male. RH/NH threaded Copper Alloy coupling. Application, "FIRE PUMP SUCTION HOSE". 10 foot length by 3 inch diameter.

00-725-9234

## LINK, FUSIBLE, FIRE

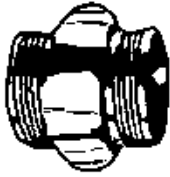
Molded, lead-tin Alloy. 2-1/4 inch thick, two terminal holes. .365 Diameter Center to Center. Distance 1-5/8 inch. Melting point 360 degrees.

00-443-3526

## NIPPLE, HOSE

Copper Alloy fitting with identical male hose connections at each end. Rocker lug type wrenching facility at center. 600 PSI maximum.

# CLASS 4210



	Thd Size	Lg/In.
00-277-3374	1-1/2 NPSH	2-1/8
00-277-3375	2-1/2 NH	2-3/4

## NOZZLE APPLIANCE

CRES. .125-27 NPT threads; .060 inch opening diameter.

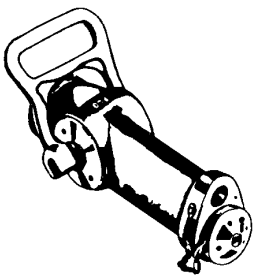
01-061-5705

## NOZZLE, FIRE HOSE

Aluminum. Adjustable stream with throw handle shut-off device. Internal hose connection at 1.000 inches nominal thread diameter. Thread quantity, 11.5 per inch, NPSH. Includes threaded body outlet. External threads. Thread diameter, 0.750 inches nominal. Quantity per inch, 11.5, series NH. Removable tip. Discharges fog and solid stream. 4 tips. Output capacity, 3.0 gallons per minute minimum and 6.0 gallons maximum. Discharge diameter, 0.188 inches minimum and 0.375 inches maximum. Threaded inlet end connection at 0.750 inches nominal and 11.5 NH threads per inch. No adapter.

00-640-1892

Three position type. With high-velocity tip secured to body by a chain. Bronze threaded female hose connection. With throw handle for shut, fog, and open position. Integral tip carrier and removable nozzle tip.



	NPSH	GPM
00-392-2943	1-1/2	52

Air-foam producing nozzles for general application in fire safety. Water capacity is 60 GPM at 100 PSIG. Inlet thread diameter as indicated.

Chemical Foam Type.

For use on Class A, B, or C fires. Electrical fires up to 250,000 volts at 10 feet or more. Trigger operated with free swivel base. Pistol grip. Capable of foam, straight stream, narrow fog,

and wide fog operation. Pick-up tube not included. The words, "FLIGHT AND HANGAR DECK USE ONLY", shall be etched, stamped, or cast, inset into both sides of the nozzle pistol grip. Adjustments below 125 GPM cannot be made. 10 pound weight.

00-465-1906  
00-601-0986

## PARTS KIT, NOZZLE APPLICATOR

Consists of: a Bronze applicator bay joint, Nickel Copper Alloy applicator strainer and strainer ring, Brass applicator tube ring, Bronze low velocity head body and cap, low velocity head coupling, 2 Brass broad applicator bayonet joint pins, Steel applicator tube, and 4 foot tubing with low velocity discharge head.

00-372-0864

## PARTS KIT, THROTTLE CONTROL LEVER

Consists of: 1 cam control, 1 sensitive switch, 1 bracket, 2 screws, 2 lock washers, 2 terminals, 2 insulator sleeves, and 1 instruction sheet.

01-069-7849

## PIN ASSEMBLY, SAFETY

Steel pin and chain, straight pin with formed ring on end, and attaching link chain. For Fire Extinguishers (CO2) 2-1/2 to 20 pound capacity.



00-112-0171

## PLUG, HOSE

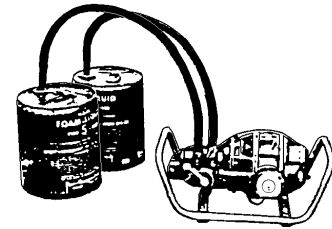
Copper Alloy, with slotted type wrenching facility. Furnished with holding chain.



00-240-5537 2-1/2 inch NH male thds.

## PROPORTIONER, FOAM LIQUID INJECTION PUMP TYPE

Portable type. Mechanical foam generating equipment. Water motor pump on skids. 3-position valve; one "OFF" and two "FOAM" positions. 2-1/2 inch NH foam intake connection. Foam liquid not furnished. Class FP-180.



00-372-0233 GPM  
60 to 180

## RACK, FIRE HOSE

Intended for manually operated fire fighting hose reels and hose guides, for shipboard use.

Machinery space Aluminum hose reel. For use with 50 foot of 1-1/2 inch Rubber hose. Nonswinging design. Bulkhead mounting. 50 inch overall length, 15 inch overall height.

00-030-6582

## RAKE, FOREST FIRE

10.875 inches wide head; 6 blades; with scraper.

00-203-3512

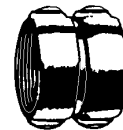
## REDUCER, HOSE

Aluminum overall. For water media, single response. Maximum operating pressure, 600.0 PSI single response. Threaded internal hose 1st end and threaded external hose 2nd end. Connection style, B16C gasket seal 1st end and B70C gasket seal 2nd end. NPSH threads 1st end. Nominal thread size, 1.500 inches 1st end and 1.000 inches 2nd end. 3A thread class both ends. Nominal overall length, 1.438 inches. Concentric reducer. For fire fighting equipment.

00-975-2969

Copper Alloy threaded reducers. Having either male or female RH hose threads at each end and wrenching facility.

Female to female, with rocker lugs and swivel at both ends.



00-377-6521 2 to 1-1/2 NPSH

Female to male, with rocker lug locking.





00-143-4353 2-1/2 NH to 1-1/2 NPSH

## SIAMESE CONNECTION, FIRE HOSE

Copper Alloy. Red enameled finish, gated type. Each of the Siamese ends, with identical threaded hose connections, can be controlled independently of the others. Inlet connections are identical with female threads and rocker lug facilities.

Two Connection Style.



00-255-0234 2-1/2 inch NH by 1-1/2 inch NPSH

Three Connection Style.



00-255-0232 2-1/2 inch NH by 1-1/2 inch NPSH

## SPRINKLER TYPE

Copper Alloy. Overhead sprinkler system. 180 degrees full cone. 1/2 inch, 14 NPT male end connection.

	GPH	PSI	Orifice Dia/in.
01-231-9906	30	100	.328
01-231-9907	39	100	.375
01-231-7168	40	50	.428

## STRAINER, PRESSURE, FIRE HOSE

Bronze body, perforated Nickel-Copper screen. Equipped with level handle and ball valve. For attachment to fire hydrant, to assure a clean supply and uninterrupted fog nozzle operation. Barrel type, self cleaning.

00-465-1904 2-1/2 in. NH

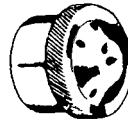
## STRAINER, SUCTION

Rounded end. 3-3/16 inch diameter by 8 inch length. Thread 2-1/2 inches, with thread quantity per inch, 7-1/2.

00-240-5530

## TIP, NOZZLE, FIRE HOSE

High-velocity fog tip. For replacement nozzle in three position water hose nozzle.



	Size/In.	Mat	Open Dia
00-604-4988	1-1/4 NS	Steel	.470

## TROUSER, FLIGHT DECK

Fire retardant shipboard flight deck trousers.

	Waist	Inseam
01-500-6964	28	30 Short
01-500-6984	28	32 Medium
01-500-6986	28	34 Long
01-500-6989	28	36 X-Long
01-500-6991	30	30 Short
01-500-6994	30	32 Regular
01-500-6999	30	34 Long
01-500-7002	30	36 X-Long
01-500-7253	32	30 Short
01-500-7256	32	32 Regular
01-500-7263	32	34 Long
01-500-7267	32	36 X-Large
01-500-7270	34	30 Short
01-500-7274	34	32 Regular
01-500-7278	34	34 Long
01-500-7286	34	36 X-Long
01-500-7290	36	30 Short
01-500-7291	36	32 Regular
01-500-7297	36	34 Long
01-500-7301	36	36 X-Long
01-500-7304	38	30 Short
01-500-7313	38	32 Regular
01-500-7315	38	34 Long
01-500-7319	38	36 X-Long
01-500-7324	40	30 Short
01-500-7328	40	32 Regular
01-500-7332	40	34 Long
01-500-7336	40	36 X-Long

## TUBE ASSEMBLY, TEST

Aluminum Alloy. Grooved for spanner wrench, threaded 1-1/4-11 1/2 NPSH.

00-066-0495

## VALVE, CONTROL, AUTOMATIC SPRINKLER

Brass body and seat, Nickel Copper Alloy stem. 2 plain face flange connections. 11-1/2 inch face to face, with 5-9/16 inch overall diameter. Six, 11/16 inch diameter, bolt holes on 4-13/32 inch diameter bolt circle. Diaphragm operated. 250 PSI operating pressure. Designed for fresh water use, and a dry pipe sprinkler system. Ascending stem movement. Inside spring type bolted bonnet. Internally located valve loading spring. Bonded renewable seat ring. Test attachment furnished.

00-214-2888

## VALVE, FIRE EXTINGUISHER

Valves are of the pressure seated, positive shut-off type. Complete with; locking pin, brass release lever, and yoke, attached to carrying handle. Yoke slips over release lever, holding it in the operating position, to permit continuous discharge or recharge. Inlet external RH thread 1-11-1/2 NPT. Outlet external RH thread 1/4-18 NPS. With siphon tube. For use on 15 pound capacity portable hand type CO2 Fire Extinguisher 4210-00-203-0217.



00-628-5633

## WYE CONNECTION, FIRE HOSE, VALVED

For fire hoses, 1.500 inch NH swivel female inlet, 1.500 inch male outlets each individually ball valved, Aluminum body plastic ball and seats, working pressure 600 PSI.

00-984-3475



## CLASS 4220 MARINE LIFESAVING AND DIVING EQUIPMENT

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### LIFESAVING EQUIPMENT

#### CARTRIDGE, CARBON DIOXIDE

	Lg./In.	Dia./In.
00-913-1065	36	22

#### LIFE PRESERVATION USE

Electro-deposited, Cadmium Plated all Steel CO2 cylinders. These UDT approved puncturable-seal cartridges, are intended for use in inflating pneumatic life preservers. Cylinder CO2 charge listed in grams and dimensions listed in inches.

For use with Yoke Life Preserver  
 4220-00-289-1891

	CO2	Lg	Dia
00-372-0585	26	4.970	1.125

#### MULTIPLE USE

The Steel cylinders filled with Carbon Dioxide. Used as a component of the mechanical inflation system for inflating life preservers, flotation cots, and sonobuoys.

Cadmium Plated Steel cylinders. Charged with CO2 gas. Cylinder CO2 charge listed in grams.



	CO2	Lg./In.	Dia./In.
00-287-3740	8.4	2.540	0.735
00-805-8383	11.8	3.250	0.735
00-965-0595	32	5.000	1.125

#### CASE, EMERGENCY EQUIPMENT, LIFE RAFT

Nylon and Rubber material. Olive Drab color with handle.

	Lg./In.	W./In.	Dp./In.
00-535-8345	15-1/4	15	3

Plastic and Rubber material. Oxford Gray color. Rectangular shape.

	Lg./In.	W./In.	Dp./In.
00-122-1681	30	14	—

Polyamide Nylon and Rubber material. Indian Orange color with handle. Cylindrical Shape.

Nylon material

	Lg./In.	Dia./In.
00-018-2142	31-1/2	14-1/2
00-834-7854*	45	19-1/2
00-018-2141	36-1/2	15-3/8

\* With handle. Orange color.

#### CHAIR, TRANSFER AT SEA

Aluminum pipe frame in the form of a cage. Collapsible for stowage. Fitted with a sheet Aluminum seat, a Canvas back rest, and a quick-acting safety belt.

00-369-4531

#### CONTAINER, GROMMET AND PAINTER LINE ASSEMBLY

The PVC container holds a 100 foot length of 5/32 inch diameter Nylon line. End item: LIFE RAFT, model MK6LR.

01-376-1728

#### COVER, LIFE PRESERVER

Adult size. Scarlet-munsell Red Cotton Drill. Used to replace worn or damaged covers, of fibrous glass filled vest-type preservers with collar.

00-289-1892

#### CYLINDER, CARBON DIOXIDE

Type 3. For use in inflating pneumatic life preservers. Charged with 34 grams minimum to 36 grams maximum of CO2 gas.

01-077-8773

#### ESCAPE APPLIANCE ASSEMBLY

Consists of; pouch assembly, belt assembly, buoyancy chamber panel, collar panel, reed panel, inflation tube cover patch, harness reinforced strip and retaining strip, chafing patch, light attachment loop and patch, base patch, snap fastener patch, oral valve clamp, accessory pocket with cover, inlet check valve, Brass adapter body, set screws, washers, marking patch, Brass snap fasteners, neck seal, oral inflation tube and valve, hood assembly,

nose clip whistle, neck seal strips, valve cover, snap fastener tab and patch, and assorted strips.

00-066-4396

#### FISHING KIT, EMERGENCY

64 Components consisting of; assorted lures, hooks, flies, leaders, swivels, line, etc.

00-244-0764

00-125-8751\*

\* 48 components. Non Spec Item.

#### INFLATION ASSEMBLY, LIFE JACKET

Anodized, high pressure Aluminum die cast body. Lever actuated with Nylon rope pull. Overall dimension - 2.500 inch length by 1.563 inch width by 1.000 inch height. Used in "LIFE PRESERVER, VEST OUTFIT", with 4220-00-805-8383 cartridge.



Inflator Type  
 Dual

00-012-3571

#### JACKET, BUOYANCY AID

Large size with collar. International Orange color.

	Size
01-317-2805	Large
01-317-1461	Extra Large

#### LIFE BOAT INFLATING ASSEMBLY

Consists of; non-shatterable Steel cylinder, complete with non-medicinal CO2 charge, siphon tube, pull cable assembly, and valve. Valve is provided with, 3/8 inch American Standard straight male pipe thread fitting for connection to manifold hose. Valve is actuated by a pull on the cable assembly. Equipped to inflate the lower tube. Rated nonmagnetic.

# CLASS 4220



7 person lifeboat. Cylinder dimensions: 3-45/64 inch outside diameter by 13-11/16 inch height.

Gas Cap./Lb

00-274-5816

2

## LIFE PRESERVER, YOKE

Gas inflated preserver with collar and gas cylinder.

Used by Underwater Demolition Teams, as emergency equipment. UDT type, adult size with collar. Inflatable by either, CO2 Cylinder 4220-00-287-3741 (not included), or orally. Blue-Gray neoprene coated Nylon. Buoyancy envelope, strap, and dee rings.



H/In. W/In.

00-276-8929

22

17

## PARTS KIT, LIFE PRESERVER

Gasket replacement kit for LPP-1 Life Preserver. Contains top and bottom gasket.

00-113-8290

## POUCH ASSEMBLY, DYE MARKER

Polyamide reinforced top and main panel. 2 Nylon straps attached with, 2 Nylon tab fasteners.

01-124-3806

## POUCH, LIFE PRESERVER

Pouch panel 23 inch length. Includes Nylon thread, 4 end and 4 side reinforcements, and 4 reinforcement pouches.

00-115-2944

## RING BUOY, LIFESAVING

Plastic material, with life line rope attached. Outside diameter listed in inches.

OD

00-275-3155

18

00-275-3156

24

00-275-3157

30

## VALVE, PNEUMATIC INFLATOR

Brass, cartridge type. Used with CO2 inflatable life preserver.

01-081-0322

Brass spool and cap material. Washer, flange and grip made of Rubber material. 4.500 inch outside diameter, 1.062 inch height.

00-470-6755

## DIVING EQUIPMENT

### BAG, DIVING EQUIPMENT

Rubberized cloth. Fluorescent Orange color. Snap fasteners. 33.000 inch length by 10.250 inch width by 7.500 inch height.

00-138-7118

### BELT, DIVER'S

Heavyweight design, Nylon woven strap, Plastic buckle.

00-912-6668

Standard design, Nylon strap, Stainless Steel buckle. 2 inch width by 54 inch length.

01-227-6034

### BOOTS, DIVERS'

To be used in conjunction with the MK-12 diving system. Black, Rubber overall. Buckle fastening method.

Size

01-327-2021

9

01-327-2022

10

01-327-2023

11

Rubber Chloroprene and Nylon material, Black color, with slide fastener. Barefoot boot has plush interior, seamless heel and toe design, molded sole, and mesh on both sides.

Size

01-348-4491

13

Rubber material overall with knitted Nylon upper. 7.500 inch high. Black color.

Size

01-261-3044

Large

## CAP

Plastic cap with Nylon string retainer. .343 inch top diameter and .062 inch bottom diameter. .750 inch inside diameter. .937 inch overall height.

00-066-6034

## GAGE, DEPTH, DIVER'S

Designed for maximum depth of 250 feet. Color coded depth zones. 2 inch luminous dial, Rubber wrist strap.

Aluminum case and bezel; Anodized Epoxy finish. Luminous 2 inch dial with Rubber strap and Chrome Plated buckle.

01-029-8736

## GAGE SET, DIVER'S

Diver's depth gage and pressure gage on common mount.

01-247-5511

## GAUGE, SEA DIVER'S

Luminous face. 0-4000 PSI dial indicator reading with built in relief valve.

00-217-5914

## HARNESS, SAFETY, DIVER'S

Nylon-Neoprene material. 2 inch width, 13/64 inch thick, with buckles, D-rings, Copper rivets. Used with Mark 1, Model O. NAVSEASYSKOM Reference Number 4666861.

01-041-3168

## KNIFE, DIVER'S

Bayonet shaped blade, tool Steel, 6-7/8 inch length. One saw toothed blade, and one plain sharp edge. Hardwood handle with threaded portion for screwing into cylindrical Brass sheath. With Leather belt. Used for prying, hacking, or cutting such material as wood, wire, rope, or sheet metal. NAVSEASYSKOM Reference number S9400-921557.

O/A Lg/In.

00-372-0665

12-1/4

Stainless Steel blade and butt cap. Black molded no-slip handle. Serrated edge. 6 inch scale, etched into 7 inch blade. Includes Nylon sheath.

00-141-1909

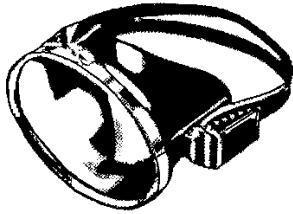
## MANIFOLD, AIR LINE

Brass material with inlet and outlet valves. Maximum operating pressure, 3000 PSI.

00-104-8732

## MASK, DIVER'S

Natural Rubber frame. Oval glass lens and adjustable Elastic head strap. 5-1/2 inch by 4-1/8 inch lens dimensions. Not adaptable for air supply.



Oval shaped  
01-077-1603

## MOUTHPIECE, REGULATOR

Rubber, Chloroprene.  
01-121-0512

## POUCH ASSEMBLY, FLARE

Consists of the following items; one reinforcing strap, one binding tape, two loop straps, two attaching straps, marking ink as required,

stitching thread as required, one inner panel, one reinforcing panel, one pouch panel, 4 buttons, 4 sockets, 4 studs, and 4 eyelets.

01-123-2194

## SNORKEL

Plastic tube with soft molded Rubber mouthpiece. 360 swivel connection. 30 to 45 degree tube contour.



01-227-7503

## SWIM FINS

Rubber overall, Black color. Nonadjustable. Size shown below.

	Size
00-431-6518	10-11 Med large

	Size
01-015-6762*	Large
*	Adjustable heel straps.

Rubber overall. Black color. With straps.

	Size
01-220-5816	X-Large

## TAPE, DIVER'S MASK

Plastic Polyethylene, White color. Width listed in inches. For USN Mark 1, Model O diver's mask.

	W
01-039-1876	3/4
01-172-7574	2

## VALVE, EXHAUST, ORAL-NASAL

Synthetic Rubber. Used on USN Mark 1, Model O Diver's Mask.

01-039-1870

## WEIGHT, DIVER'S

Standard heavyweight design. Waist style weight. Plastic Polyamide ballast, with a gross weight of 3 pounds.

00-905-5446



## CLASS 4240 SAFETY AND RESCUE EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### ARM HINGE ASSEMBLY

Used on Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-302-9683

### AURAL PROTECTOR, SOUND

Intended for use by military personnel required to be in areas where, due to the intensity of sound, ear protection is required. Consists of suspension assembly, attachment assembly, and ear cup assembly.



Designed for suspension over the head, back of the head, or under the chin, sound attenuation 25 DB for 500 HZ, 35 DB for 1000, 2000, 3000, and 4000 HZ, 30 DB for 6000 and 8000 HZ, with extra set of seals.

00-022-2946

### BAG, BREATHING, OXYGEN

Used for replacement of breathing bag on Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0986

### BAIL, SHOCK ABSORBER

Used on Breathing apparatus, 4240-01-297-5986.

01-049-0989

### BREATHING APPARATUS, OXYGEN GENERATING

Breathing Apparatus. Oxygen Generating, self-contained unit. For use as fire fighting equipment.



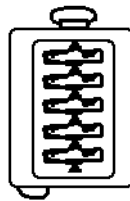
01-297-5986

### CANISTER, OXYGEN GENERATING, BREATHING APPARATUS

Regular Type. Quick starting (self-activating). Each container shall contain: incorporated in and on the canister bottom, one Oxygen candle capable of supplying Oxygen, at the beginning of use of the canister, or at the end of the useful life of the canister.

00-174-1365

Color  
 Green



Training Type. Furnished as a kit of 4240-00-270-4515, Type A-3 OBA to provide realistic training for 40 trainees in donning and activating the OBA quick start canister. When charged with fresh candle, canister will provide Oxygen for five minutes of training for each student.

00-238-9959

Color  
 Red

### CAP, CANISTER

Tear off pulls, 10 per carton.

00-089-7963

### CARTRIDGE, FILTER, AIR BREATHING PUMP

Borosilicate Glass micro fibers. Non reusable element, cylindrical, without container. 5 micron Filtration range. Disposable cartridge filters, with retention efficiencies to 99% of .6 micron particles.

	ID/In.	Lg/In.	Thk/In.
01-084-0921	2	2-3/4	1/8

### CARTRIDGE, RESPIRATOR, AIR FILTERING

DUST AND MIST

*Organic Vapors*

Used on: North series 7700, 75BP, and 7600 Respirators. 6 per package.

01-249-2563

GMA type. 10 per box.

	No.
01-230-6892	TC-23C-40

*Fumes & Radionuclides*

Used on: MSA mask number 460968, color Yellow. 10 per box.

	No.
01-103-8475	TC-23C-47

Type H filter. 6 per box.

	No.
01-230-6895	TC-23C-155
01-230-6894	TC-21C-135
01-206-1077	TC-23C-153

*Acid Gasses*

For use in filtering organic vapor and acid gasses. 6 per box.

00-143-4391\*

\* Internally threaded connections.

Used on: 3M Models 7200 and 7300 respirators. NIOSH approval numbers as indicated. 6 per box.

	No.
01-246-5408	TC-23C-443

# CLASS 4240

## Petroleum Vapors

Used at inlet pressures up to 125 PSIG. For filtering dust, mist, and petroleum vapors. Does not remove Carbon Monoxide.

00-770-0270

### CATCH, LEFT

Used on Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0987

### CATCH, RIGHT

Used on Breathing Apparatus Oxygen Generating 4240-01-297-5986.

01-048-9518

### COUPLING ASSEMBLY, EXHALATION

End item identification: 4240-01-297-5986.

	Dia/In.	Lg/In.
01-409-0980	1.7	1.650

### COUPLING ASSEMBLY, INHALATION

End item identification: 4240-01-297-5986.

01-049-0979

### COVER, VALVE

Used on Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0985

### DEFLECTOR, VALVE, MASK

For use on Mask, Chemical-Biological Models: MCU-2/P and MCU-2A/P.

01-286-1842

### DISK, MASK, INLET VALVE

A one way Rubber inlet valve.

	OD/In.	ID/In.	Thk/In.
01-224-6336	1.230	.095	.008

### DISK, VALVE

Natural Rubber. Packed 10 per carton. U.S. Army Research and Development Command Reference number, B5-2-1006.

	Dia/In.	H/In.
00-712-6090	1.118	.028

### FACE PIECE, OXYGEN BREATHING

End item identification: 4240-01-297-5986.

01-049-0975

FACE PIECE, SMALL.

Oxygen Breathing Apparatus Type A-4. Used by Navy for fire fighting on end item NSN 4240-01-297-5986.

01-322-6409

### FACESHIELD, INDUSTRIAL

Style K11 Plastic visor with forehead and semiskull guard. Clear. Visor has tiltable feature. Visor support method, headgear. Visor length, 8.000 inches minimum and 10.000 inches maximum. Visor width, 17.000 inches minimum and 10.000 inches maximum. Visor thickness, 0.040 inches minimum.

00-542-2048

### FILTER, PARTICULATE

Used for the filtration of chemical gases and vapors used in chemical warfare.

00-040-8453  
00-559-3244  
01-066-3266

### FILTER, RESPIRATOR, AIR FILTERING

For dust. Does not remove Carbon Monoxide.

DUST, MIST, VAPOR

For use on North Series Respirator models: 7700, 75BP, and 7600.

	Qty
01-025-1415*	10
* North model 7506	

TOXIC DUST

Used on North Series Respirator Models: 7700, 7500, 75BP, and 7600.

	Qty
01-249-2573	2
01-249-2572	4

PAINT MIST

For use on 3M respirator models as noted.

	Qty	No.
01-452-8678	100	5, 6/7000

### FIRE STARTING TOOL, MAGNESIUM

Built-in sparking insert. Starting power to 5400 degrees Fahrenheit. Fireproof in solid form.

01-160-5618

### FOUNTAIN, EYE AND FACE WASH

WALL MOUNTED

Stainless Steel. 10 gallon capacity with bracket mounting. Hand held spray and tank mounted eye wash.

01-226-1073

Plastic, Polyethylene. Transparent. Counter or wall mounted. Furnished with: Stainless Steel wall brackets and Anti-Bacterial, Anti-Fungal additive with each unit. 14 gallon capacity. Medical grade PVC.

	H/In.	W/In.	Dp/In.
01-234-1796	25	16	10

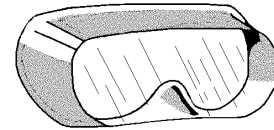
PORTABLE

Plastic, Polyethylene material. 16 gallon capacity. Gravity fed.

01-258-1245

### GOGGLES, INDUSTRIAL

One piece single aperture rigid, Plastic, design can be worn over other spectacles.



One Piece Frame and Lens Single Aperture.

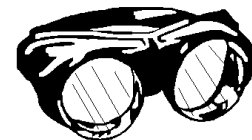
NON VENTED

	Color
01-063-5996	Clear
00-816-3819	Maroon

VENTED

01-364-2994

CHIPPER'S Cover-Eye-Cup Type. Used to protect the eyes from flying objects. Plastic frame ventilated with adjustable nose bridge. Double aperture with two round shaped, clear, hardened, unpolarized lenses secured by retaining rings. Designed to be worn over personal spectacles. Furnished without carrying case. For replacement lens see 4240-00-262-7091.

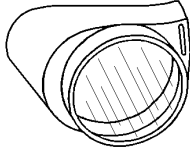


00-269-7912

WELDER'S Cover-Eye-Cup Type. Used to protect the eyes from glare caused by welding.



Consists of: Plastic frame, ventilated, with a leather chain nose bridge, Double aperture with two filter lens and two glass cover lenses secured by retaining rings, Two extra lenses are also furnished. Designed to be worn over personal spectacles. Furnished without carrying case. For replacement cover lens, see 4240-00-262-7092.



No.  
6

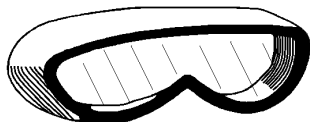
00-203-3804

Glare, injurious radiations and impact. Plus protects the wearer from flying objects. Can be worn with spectacles. Ventilated, designed to generally contour to the shape of the face, covering completely the eye sockets offering both frontal and side protection. Flexible adjustable nose bridge, adjustable replaceable head band. Provided with two plate glass lenses and two filter lenses. Shade number shown below.

No.  
4

00-998-4418

Dust, chips, and machine cuttings, plus protects the eyes from small flying particles. Ventilated. One piece, single aperture with Clear Plastic lens. Designed to be worn over personal spectacles. Furnished without carrying case. Flexible frame with replaceable lens.



One Piece Single Aperture

00-052-3776

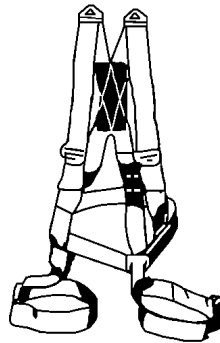
Acids and Chemical Vapors protection for the eyes. Non-ventilated. Designed to be worn wherever gas-tight goggles are required. One piece molded rubber frame. Consists of two oval shaped clear, hardened, unpolarized lenses and headband. Can be worn over conventional type personal spectacles or to fit snugly and comfortably over the eyes. Furnished without carrying case.

00-190-6432

## HARNESS, SAFETY, INDUSTRIAL

Intended for use by personnel working in fall hazardous situations, aboard surface ships and aboard submarines. One size harness. Capable of adjusting to fit all sizes of wearers between 140 pounds and 250 pounds in weight, and between 5 feet and 6 feet 4 inches in height. Furnished with shoulder strap adjustability and adjustable leg support. Not furnished with

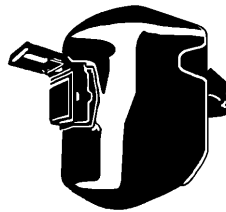
working lanyard and/or safety lanyard with energy absorbing device.



00-022-2522

## HELMET, WELDER'S

Lift Front Type. One piece reinforced molded Plastic, with hinged cover glass holder. Used to protect face, head, and neck from heat and injurious radiant energy, encountered in gas or electric welding or cutting. Furnished with one safety glass. Filter and cover glasses must be ordered separately. See LENS, HELMET, WELDER'S.



Color  
Dull Black

00-540-0623

For Acetylene Welding. Vulcanized fiber main body. 2 inches by 4-1/2 inches. Metal plate holder. Fits easily over glasses.

01-243-1954

## HOOD, PAINT SPRAYER'S

A chemical resistant hood to protect paint sprayers from over spray. Blue Plastic Polyethylene body.

01-031-1094

## HOSE, AIR DUCT, AIR BREATHING

Rubber hose material, 11-1/2 inches long. First end: inside diameter 27/32 inches, 11/16 inches long. Second end: inside diameter 1-1/4 inches, 1-3/8 inches long. Has 90 degree elbow, 1-3/8 inches long.

01-049-0978

## HOSE ASSEMBLY, AIR DUCT, AIR BREATHING

Rubber hose material. Operating pressure 10 and 32 PSIG. Quick disconnect couplings external, and Number 11 internal.

	ID/In.	Lg/Ft
01-086-1210	3/8	50

Rubber hose material. First end style number 9 internally threaded coupling 3/4- 16 UNF. Second end style number, 8 externally threaded coupling 3/4-16 UNF.

	ID/In.	Lg/Ft
00-770-0268	3/8	25

## INSERT, SPECTACLES, MASK

Holds spectacles in place under a face piece or gas mask. Consists of; 1 bracket, 1 nose piece, 2 lens frames.

00-781-6318

## KIT, REPLACEMENT AIRLINE FILTER

Used for Breathing Apparatus Oxygen generating. End item identification number 4240-00-770-0269.

Contains; 2 cartridges, 1 Black O ring gasket, wadding, and retaining ring.

01-085-3721

## LANYARD, SAFETY BELT

Nylon rope, non-adjustable. Two double lock snaps, one on each end. 5 inch length. Free fall limit 6 feet.

	Dia/In.	Lg/In.	TS/Lbs
00-456-6146	1/2	53	6000

## LANYARD, SAFETY HARNESS

Nylon rope or webbing. 6 feet with double lock snap hook on each end. Both latches are required to be depressed in order to engage or release the snaps. Includes an adjustment device capable of shortening the device by 50%.

00-022-2518	working lanyard
00-022-2521	safety lanyard

## LENS, COVER

Used on: Mine Safety Ultra View, Face piece. Clear Cellulose Acetate.

	Lg/In.	W/In.
01-052-9901	7-3/4	3-7/8

## LENS, FACE PIECE, OXYGEN BREATHING

Polycarbonate material. End item identification number 4240-01-297-5986.

# CLASS 4240

01-049-0977

## LENS, GOGGLE, INDUSTRIAL

CHIPPER'S type, Hardened Clear Plate Glass. Used as cover lens for chipper's filter lens. This is a replacement lens for GOGGLES, INDUSTRIAL, 4240-00-269-7912.

00-262-7091 50 millimeters diameter by 3.4 millimeters thickness.

WELDER'S type, Hardened, Clear Plate Glass. Used as a cover lens for welder's filter lens. This is a replacement for GOGGLES, INDUSTRIAL, 4240-00-203-3804.

00-262-7092 50 millimeters diameter by 0.08 millimeters thick.

WELDER'S FILTER LENS. This is a round 50 millimeter diameter replacement lens. . Used to protect eyes from glare. Filter lenses are intended for use when engaged in gas cutting, Medium gas welding, and for arc welding up to 30 amperes.

	Matl	Thk/In.	Shade No.
00-262-7098	Glass	3.400	5
00-262-7099	Plastic	.135	6

## LENS, HELMET, WELDER'S

Welding filters shade list.

The following is a guide, for the selection of the proper shade numbers of filter lenses, or windows used in welding.

Welding operation	Suggested Shade No.
Shielded metal-arc welding 1/16, 3/32, 1/8, 5/32 inch electrodes	10
Inert-gas metal-arc welding (nonferrous) 1/16, 3/32, 1/8, 5/32 inch electrodes	11
Inert-gas metal-arc welding (ferrous) 1/16, 3/32, 1/8, 5/32 inch electrodes	12
Shielded metal-arc welding 3/16, 7/32, 1/4 inch electrodes	12
5/16-, 3/8-inch electrodes	14
Atomic hydrogen welding	10-14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 in. to 6 inch	4 or 5
Heavy cutting, over 6 inch	5 or 6
Gas welding (light), up to 1/8 inch	4 or 5
Gas welding (medium), 1/8 inch to 1/2 inch	5 or 6

Welding operation

Gas welding (heavy), over 1/2 inch 6 or 8

**NOTE: In gas welding or Oxygen cutting, where the torch produces a high Yellow light, it is desirable to use a filter or lens that absorbs the Yellow or Sodium line, in the visible light of the operation. 4.250 inches long by 2 inches Wide.**

Shade No.

Style A

	Shade No.
00-540-2427	CO-BS 4
00-540-2422	CO-BS 9
00-276-8940	CO-BS 10
00-540-2421	CO-BS 11
00-276-8941	CO-BS 12

Clear Plastic Cover Lens. Used to protect filter lens from pitting. For use with Helmet Welders, 4240-00-540-0623.

	Style	Lg/In	W/In.
01-311-6917	D	4 1/4	2

## LENS RING KIT ASSEMBLY

Used with ultra-Filter and Ultra-Twin respirators. Contains: 2 lens rings, nuts, and screws.

01-055-8347

## MASK, AIR FILTERING

MSHA approved with Elastic headband.

01-260-6236 adjustable

## MASK, AIRLINE

Airline with face piece for supplied air for respirator assemblies.

## FULL FACE PIECE

Comes with constant flow respirator, regulating valve, attachment fitting, and 100 feet of breathing hose with fittings.

01-251-9403

## HALF-MASK FACE PIECE

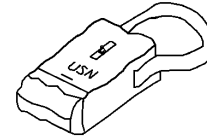
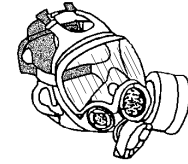
Comes with; Clear single lens face piece, overhead harness, 28 inches of flexible breathing hose, demand flow, quick disconnect, belt mounted regulator and two connections.

01-022-1541

Suggested Shade No.

## MASK, CHEMICAL-BIOLOGICAL MCU-2/P

Chemical resistant, canister filter type, particulate included. With direct attachment of canister to face piece. Left or right cheek mounting position. Plastic face piece cover type. Includes face piece speaking diaphragm with microphone hook-up capabilities. Elastic harness material. Nylon carrying case. Hood included.



	Size
01-327-4148	small
01-327-4149	medium
01-327-4150	large

PARTS USED WITH CHEMICAL BIOLOGICAL MASKS (MCU-2/P AND MCU-2A/P).

## BAG, WATERPROOF

Plastic Vinyl Chloride, single wall, clear material. Waterproof snap fastener closure, top opening. Designed for tropical use.

	Face W/In.	H/In.	Thk/In.
00-803-5839	12-1/2	16-1/2	.006

## BAND, ELASTIC

Rubber, Black Silicone. For Scott Model, MCU-2/P series 864.

	O/A Lg/In.
01-223-7312	2.600

## OUTSERT ASSEMBLY

Consists of; outsert lens subassembly, Elastic band, and lens decal. For use on Scott Model, MCU-2/P series 864.

	Size.
01-224-4195	Small
01-224-4197	Medium & Large

## TUBE, DRINKING

Consists of; Tube (quick disconnect), half-coupling, adhesive primer, and Methyl Ethyl ketone. Connects to plunger. Shall have a minimum airflow of 2.0 Liters per minute.

01-286-1841

Black Rubber. bent shape at 15 degree angle

after 1.12 inches of length.

01-286-1843

## VOICEMITTER, ASSEMBLY

FRONT

Baffle subassembly, rear baffle, gasket, and diaphragm.

	Dia/In.
01-224-0351	2

SIDE

Consists of: Baffle subassembly, rear baffle, gasket, and Diaphragm.

	Dia/In.
01-224-4198	.150

## NOSECUP ASSEMBLY

For Oxygen breathing, at temperatures below 32 degrees Fahrenheit.

01-048-9400

## PAD, WIPE, RESPIRATOR

Isopropyl Alcohol.

	Lg/In.	W/In.
01-250-8295	5-1/2	7-1/2

## RESPIRATOR, AIR FILTERING KIT

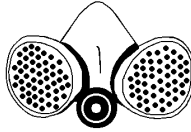
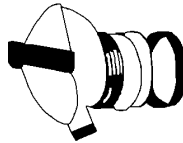
### CAUTION:

To preclude any possibility of health hazards, DISCARD RESPIRATOR when the filters and cartridges are consumed. UNDER NO CONDITIONS should requisitions be submitted for only the filters and/or cartridges.

Single or dual-element types with half-face piece masks. Bureau of Mines approved. Protects personnel exposed to dusts, metal fumes, paint sprays, and toxic vapors. Furnished with; head harness, exhalation valve(s), and sufficient filters and/or cartridges, to last the life expectancy of the major item.

FOR DUSTS

Single or double filter pad respirator. Complete with 50 extra filters for single element types, or 100 extra filters for dual-element types. For protection against pneumoconiosis and fibrosis dust, and nuisance or inert dusts.



00-084-9394

FOR ORGANIC VAPORS

Adjustable Elastic material, Plastic half face piece. Non Spec Item.

	Size
01-300-9401	Small
01-300-9402	Medium
01-300-9403	Large

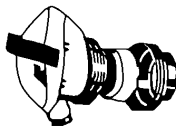
PAINT MIST AND PESTICIDE

Replaceable filter pad. Adjustable Elastic, Plastic face piece.

	Size
01-300-9416	Small
01-300-9417	Medium
01-300-9418	Large

Replaceable cartridge filter.

Single or dual cartridge respirator. Complete with 50 extra chemical cartridges for single-element type and 100 extra chemical cartridges for dual-element type. To protect wearer against concentration of organic vapors.



01-015-5194                      Single strap

Cartridge and filter pad type, with replaceable filters. Silicone Rubber or Rubber mask material with half face piece. Elastic strap material for double or cradle straps. Comes with an exhaust valve and a head harness.

	Size
01-199-0077*	Medium
* Full face piece with Plastic Polycarbonate lens.	

FOR ORGANIC VAPORS, PAINT SPRAYS

Replaceable cartridge and filter.

Single or dual cartridge, and filter combination

respirator. Complete with, extra chemical cartridges and filters for protection against paint sprays and vapors. 25 cartridges and 50 filters for single types, 50 cartridges and 100 filters for dual types.

TOXIC PESTICIDES IN DUST, MISTS, SPRAYS, AND VAPORS

Replaceable cartridge and filter.

Single or dual cartridge respirator. With 25 cartridges and 50 filters furnished with each single receptacle, and 50 cartridges and 100 filters with each dual receptacle mask. For protection against toxic pesticides in dusts, mists, sprays, and vapors.

Dual cartridge and replaceable filter pad. Half face piece head harness, adjustable. Black, double strap, Elastic material.

	Size
01-022-8501	Medium
01-086-7670	Large

Cartridge and filter pad type, with replaceable filters. Furnished with 2 cartridge and 2 filter pads. Used for protection against; dust and mist, paint mist and pesticide, and organic vapors 1, 2, and 3. Mask material is Silicone Rubber with a half face piece.

	Size
01-269-4171	Medium

## SEAL, DOME

Replacement Seal, Aural Protector. 'O'-shaped, Vinyl film cover over Polyurethane, furnished in pairs. Adaptable to hearing protectors.

00-979-4040

SHIELD, ARC VIEWING, HAND HELD

The shield has a Fiber body that covers the face completely. Lens, 4.250 inches long by 2.000 inches wide.

00-270-4415

## SLEEVE, SAFETY, CLIMBING

Aluminum, Steel. Static load rating 1000 pound maximum.

	H/In.	W/In.	Dp/In.
01-042-9688	11	3	5

## SPECTACLES, INDUSTRIAL

Plastic Polycarbonate. Clear lenses. SPECIAL FEATURES: 4C coating.

01-292-2816

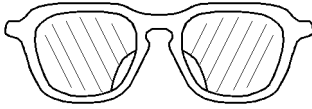
Intended for use by personnel engaged in occupations, where small flying particles of relatively light impact are encountered. In addition, spectacles with absorptive lenses provide protection from the harmful effects of

# CLASS 4240

intense light, in the vicinity of welding or other sources of intense glare.

Plastic frame containing standard shape, impact resistant, absorptive, clear glass lens. Keyhole bridge with rigid nose pads. Green Plastic side shields, unless otherwise indicated. Corrosion resistant metal temple section with fully insulated temple core. Diopter curve designator 6.00. Carrying case furnished unless indicated otherwise.

## KEYHOLE BRIDGE WITH RIGID NOSE PADS



Clear Shields/Plastic Sides

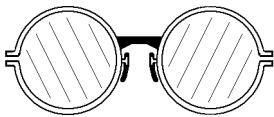
	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-516-4728	6-1/2	20	46	39
00-516-4531	6-3/4	24	48	41
00-516-4529	6-3/4	26	48	41

Green Shields/Plastic Sides

	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-516-4517	6-1/4	24	46	39
00-516-4527	6-1/2	20	46	39
00-516-4523	6-1/2	22	46	39
00-516-4483	6-3/4	24	48	41

Nickel-Plated Brass. Green Plastic side shields. Nickel Silver material in temple section.

## SINGLE BAR BRIDGE WITH ROCKER NOSE PADS

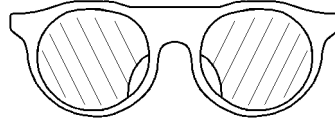


	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-269-9460	6-3/4	24	48	41

Clear Plastic. Plastic temple section material.

Clear Plastic lens material. Clear Plastic side shield.

## SADDLE BRIDGE WITH RIGID NOSE PADS



01-140-0282

## STRAP, SAFETY, INDUSTRIAL

Nylon strap, Single tongue buckle.

	Lg/In.	W/In.
00-752-9715	84	1-3/4

## STRAP, WRIST GROUNDING

Stainless Steel woven fibers with Elastic Nylon.

	Size
01-165-8865	Large

## SUPPORT, BACK, LIFTING

Black color, supports the back and abdomen when lifting; has two stage closure and suspenders.

	Size
01-358-2906	Small
01-358-2905	Medium
01-361-4042	Large

## SUPPORT, FACE PIECE

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0981

## SWEATBAND, WELDERS HELMET

3 Plastic clip on strips adapts sweatband to helmet. Rubber with sponge.

	Lg/In.	W/In.
00-288-9325	8-1/2	1-3/4

## TAB, PULL, BREATHING

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0984

## TRAVELER ASSEMBLY, FIXED

Safety track traveler lifeline work belt used on SS Submarine. NAVSEASYCOM Drawing SSS1202-1226102ALT8PC6T010.

00-089-7615

## TUBE, BREATHING

Used on Oxygen Breathing Apparatus, Navy Type

A-3. Rubber tubing with 20 corrugations. 3/64 inch wall thickness. NAVSEA Drawing. S9300-921871 PC105.

## TUBE, BREATHING BAG

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-049-0983

## VALVE ASSEMBLY, COMBINATION

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-048-9515

## VALVE ASSEMBLY, EXHALATION

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-048-9517

## VALVE ASSEMBLY, INHALATION

Used with Breathing Apparatus, Oxygen Generating 4240-01-297-5986.

01-048-9516

# GROUP 45

## PLUMBING, HEATING, AND WASTE DISPOSAL EQUIPMENT

### CLASS 4510

#### PLUMBING FIXTURES AND ACCESSORIES

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

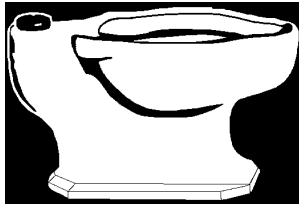
#### BAFFLE, DECK DRAIN

Brass. 1/16 inch thickness, 4 holes in one end. 7/32 inch diameter on a 1-7/8 inch diameter bolt circle. Diameters listed below.

	Major	Minor
01-115-8347	3-7/8	2-7/16
01-138-2014	3-7/8	2-5/16

#### BOWL, WATER CLOSET

Elongated front. Reverse bowl trap. Vitreous White Porcelain China bowls. Bottom outlet, 1-1/2 inch top inlet spud. Designed for deck mounting. With integral pedestal base, without flush valve or seat.



00-273-1202

Round front Vitreous White China bowls. Siphon-jet type with rear outlet. 1-1/2 inch side inlet spud, and pedestal base designed for shock mounting. Without flush valve or seat. Bowl with supply waste, and shock fittings. All metal parts non-magnetic. NAVSEA Drawing 810-1385705.



00-540-1711

Elongated front. Nickel-Copper Alloy bowl. Bottom outlet, 1 inch rear inlet spud. Designed for deck mounting.

01-119-9923

#### BUBBLER, DRINKING FOUNTAIN

Cast Brass body. Forged Brass guard, Chrome Plated. Pressure 20 to 125 pounds. This is a pressure regulating, self closing valve. 3/8 IPS inlet.

00-325-3181

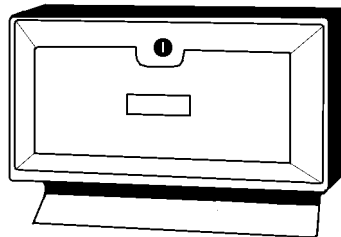
#### CONTROL VALVE, SHOWER

Designed for installation between shower head and shoulder arm. Water can be turned on-off and spray adjusted without disturbing temperature setting. Cuts water consumption 50 percent. Fits any standard shower head and arm. Control has 1/2 inch male and female connectors.

00-257-2215

#### DISPENSER, PAPER TOWEL

Single-fold towel dispenser, for hand towels. Under FAN, 8540-00-262-7178. Bulkhead mounted. White enamel metal cabinet with bottom dispensing slot.



	Lg/In	H/In.	W/In.
00-224-8549	11.5	6	6.25

Triple fold towel dispenser, bulkhead mounted. 300 towel capacity. White enamel Steel cabinet with bottom dispensing.

	Lg/In	H/In.	W/In.
00-585-6305	11	15.5	3.875

#### DISPENSER, SOAP

Hand operated soap dispensers. Rigid dispensing units with refillable soap containers. Dispenses measured amounts. Furnished with bracket and screws for bulkhead mounting. For liquid soaps, 10 ounce capacity. Hand pump valve.

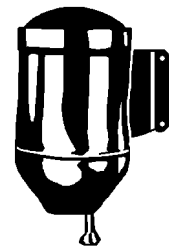


00-203-2707 Glass, metal, or Rubber container

For liquid soap, any acceptable capacity. Hand pump valve.

00-919-1217 A/A material

For Borax and powdered toilet soap, 8520-00-270-0258. With push-up valve. 20 ounce capacity.



00-203-2709 Glass, Plastic, or White enamel metal container

#### DISPENSER, TOILET PAPER

Stainless Steel cabinet and Plastic cabinet, metal roller or Plastic roller, frontal slot dispenser, automatic paper roll stop provided.

	Lg/In	H/In.	W/In.
00-752-9065	6	16-1/2	5

Steel cabinet, Plastic or Zinc roller, Chrome cabinet, frontal slot dispenser.

# CLASS 4510

	Lg/In	H/In.	W/In.
00-892-5850	5-1/2	10-3/8	5-1/8

## DRAIN, FLOOR

Shipboard deck drains. Integral trap type with strainer.



Female threaded outlet. With Brass body and perforated strainers.

	Drain Size/In.	Open Strainer Dia/In.
00-256-8835	2	4-11/16

Flanged outlet. With Aluminum body and slotted 4-3/32 inch strainer. Bell trap. 2 inch outlet pipe accommodation. Flanged joint.

01-120-9349

Round flush type drain with an outlet on the bottom. Bronze body and open strainer. Bell trap. Outlet pipe, 1.500 inch diameter. Bolted type mounting. 4-19/32 inch diameter strainer.

00-949-5580

Male unthreaded outlet on bottom. Bronze body with back water valve and slotted strainer. Furnished without Steel sleeves.

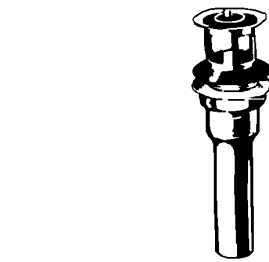


	Drain Size/In.	Open Strainer Dia/In.
00-273-1077	1-1/2	4-19/32
00-273-1086	2	4-3/32
00-949-5581	3	5-5/32
00-273-1078	2	5-5/32
00-945-7790*	2	5-5/32
00-273-1079	2-1/2	6-5/32
00-273-1080	3	7-3/32

\* With clean out feature.

## DRAIN, LAVATORY

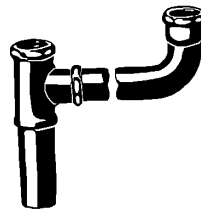
Lavatory drain. Chrome Plated Brass. Furnished with 2-1/4 inch diameter flange drain fitting. Rubber stopper with bead chain, Rubber gasket, and locknut. 1-1/4 inch outside diameter by 6 inch length slip tail piece.



00-252-3154

## DRAIN, MULTIPLE WASTE

End outlet continuous waste. Chrome Plated Brass. End outlet with 5 inch length slip tail piece. Dual inlets furnished with slip-joint nuts, friction rings, and washers. 1-1/2 inch outside diameter, size 24 to 25 inch centers.



00-276-7838

## DRAIN, SINK

Flat-top Sink Strainer for 2-1/8 inch outlet. Chrome Plated Brass. Furnished with 1-1/2 inch by 4 inch slip tail piece, removable grid and mounting hardware.

00-273-1104

Stopper-basket type strainer. Chrome Plated Brass material. 1.500 inch diameter tailpiece with a 3.500 inch outlet.

00-216-5421

## DRIER, HAND, ELECTRIC

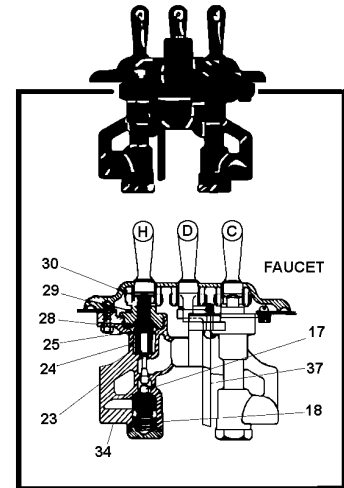
Wall style, metal or Plastic, for installation in washrooms, boiler rooms, and restrooms. All electric parts are designed to operate on 110/125 volts, 60 cycle, single-phase, alternating current. Materials used in construction are noncombustible and corrosion resistant. Complete weight of unit does not exceed 40 pounds.

00-069-2034

## FAUCET, DOUBLE

Combination water supply and drain fixture. Self-closing. Chrome Plated exterior parts. Furnished complete.

00-202-8182 4-5/8 inch centers 1/4 18 NPT



Repair Parts

NIIN	Item Name	Navship Dwg Pc No.
00-372-0789 <sub>NP</sub>	Valve stem, lower	17
00-372-0777 <sub>NP*</sub>	Valve spring	18
00-372-0790 <sub>NP</sub>	Valve stem, upper	23
00-372-0775 <sub>NP†</sub>	Seat	25
00-372-0693 <sub>NP†</sub>	Diaphragm	28
00-300-6992 <sub>NP</sub>	Tube, faucet conn	34
00-300-6998 <sub>NP</sub>	Rod, drain oper.	37
	* FSC 5360	
	† FSC 4820	

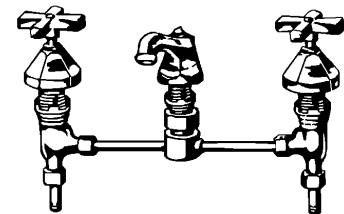
Bath supply combination fixtures. Brass body with compression seats. Handle indexed "C" and "H".

Vertical surface mount, swing spout provided, marked hot and cold. 1/2 inch NPT supply connection.

00-927-5561 8 in. centers

Lavatory supply combination fixtures. Brass body with renewable seats. Handle indexed "C" and "H". Exposed metal parts, Chromium Plated. 1/4-18 inch NPT, male tailpiece supply connections.

Concealed type wide-spread lavatory faucet. Cross type handles, and slip joint adjustable connections. 1/4-18 inch NPT.



00-252-6889 14 in. centers

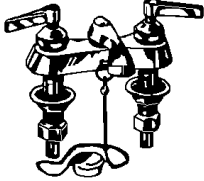
Center set single lever control. Polished Chrome Plated Stainless Steel body and handle. Fuller ball seat.

01-128-4720

Center set single level control, Zinc Chrome Plated. Fuller ball seat.

00-031-7634

Exposed type center set lavatory faucet. Lever type handles, and eyelet attaching chain and stopper.



00-252-6888 4 in. centers

Sink combination supply fixtures. Brass body with renewable seats. Handles indexed "C" and "H". Exposed metal parts, Chromium Plated.

Utility sink faucet. 1/2 inch 14 NPT. Elevated swing spout, with aerator nozzle and metal soap dish. Female adjustable flange connection.



00-253-0857 8 in. centers

Round push button handle. 1/2 inch 14 NPT. Male thread connection.

01-296-6859 4 in. centers

## FAUCET, SINGLE

Self-closing faucet provided with a lever handle. 3/4 inch NPT, external thread inlet. Cast or milled body section, suitable to accept wrench. Pail hook provided, locking device included.

00-595-1785  
00-484-3439  
00-485-9188

Lavatory compression faucets. Brass body with renewable seat. 1/2 inch NPT male tailpiece. Indexed, cross-type, Brass handle. Exposed metal parts, Chrome Plated.



00-252-3776 Marked "Cold"

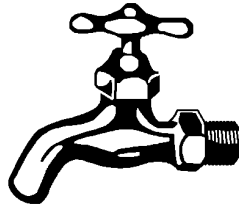
## SHIPBOARD USE

Hex-shoulder Standard (Bibb) faucets. Bronze body with integral seat. NPT male supply

connections, and Tee or (4 arm) handle. Exposed metal parts Nickel-Chrome Plated.

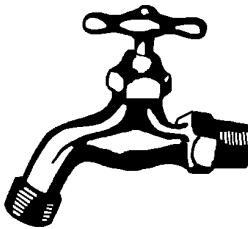
## Compression

With plain end.



00-252-3767 3/4 in. supply

3/4 inch hose threaded.



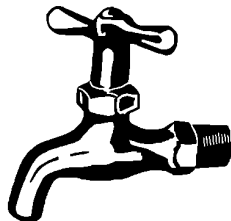
00-252-3771 1/2 in. supply  
01-071-4296 1/4 in. supply

## Self-closing

3/4 inch hose threaded.

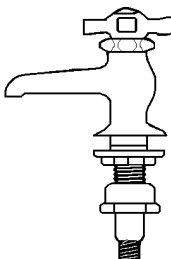
00-585-2260 3/4 in. supply

With plain end.



00-252-3778 1/2 in. supply

Polished Brass lavatory, fast, self closing. Rubber coated, CRES handle. Renewable compression seat. With supply connection and tailpiece. 1/2 inch NPT.

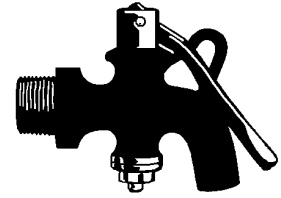


00-703-4402

Noncorrosive-metal barrel faucets. Lever-lock

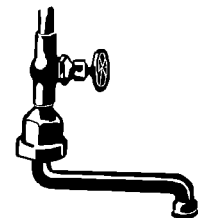
type with metal to metal seat. 3/4 inch NPT male threaded inlet, and plain outlet.

With Ground key handle.



00-580-2958

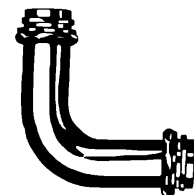
Overhead Supply swing-spout fixture. For use with steam kettles and urns. Chrome Plated Brass or Bronze valve with 1/4 in. NPT female threaded inlet, wheel handle, spout-adapter, and 14 inch length swing spout.



00-142-1238

## FLUSH CONNECTION, URINAL-WATER CLOSET BOWL

90 degree Elbow Connection. Chrome Plated Brass. Provided with 2 slip joint nuts, friction rings, and Rubber washers. 1-1/2 inch outside diameter size, 8 inch lengths.



00-273-1096

Straight connection. Brass, 1-1/2 inch outside diameter. 6 inch length.



00-203-1038

Straight reducing connection. Chrome Plated Brass. 1-3/8 inch outside diameter, 7-1/2 inch length. With slip joint ends, for connecting top spud urinals to flush valves.

# CLASS 4510



00-273-1095

## HOLDER, SOAP

Concealed type cake holder. Chrome-Plated Brass. Wall surface mounted, accommodates 1 cake of soap.

00-289-8045

Chrome Plated Brass paper holders. Furnished with hardware for exposed-screw style bulkhead mounting.

Holder with removable spring-pivot roller. Furnished with 2-brackets and 2-wall flanges, or

1-bracket with 2-posts.

00-203-2721

Holder with sectional rigid bracket surface type mounting. Cadmium Plated finish. Wood roller, socket end.

00-364-3035

Wall surface mounting. Chrome Plated material. Accommodates 1 bar of soap. 4.000 inch width by 3.750 inch projection, furnished backplate and mounting screws.

00-126-3554

## HOLDER, WATER TUMBLER AND TOOTHBRUSH

Chrome Plated Steel material. Screw mounted wall and surface type. Holds 1 tumbler and 4 toothbrushes.

00-242-3968

## HOSE AND SPRAY ASSEMBLY

Pre-rinse spray with flexible Stainless Steel hose, 48 inch length. Automatic shut-off valve with sprayhead. 1/2 inch threaded female adapter.

01-056-9580

## LAVATORY

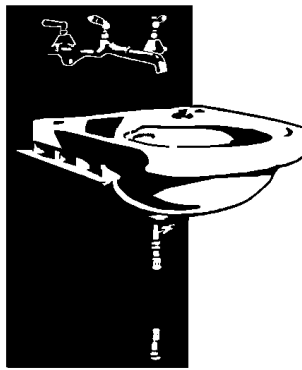
Pressed-metal lavatory with oval basin. 18 by 15 inch CRES body with apron front. Wall mounted. Furnished with over-rim type, self-closing combination faucet fitting, and snap-action pop-up drain assembly.

00-273-1105 13 in. x 10 in. basin

Vitreous Porcelain China, counter top installation "D" shape bowl. Top lavatory supply opening for 4 inch center to center supply lines. Inside length 12.125 inches by 15.000 inches inside width. Special features: 19.000 inches overall diameter.

01-250-2970

Vitreous Porcelain China with glaze surface treatment. Oval basin. 17 inches by 16 inches body. Apron front and soap depression. Designed for wall mounting. Furnished with over-rim type, self-closing combination faucet fixture. Snap-action, pop-up drain assembly and flexible hose connection to waste outlet. NAVSHIP Drawing 810-1385771.



00-277-9844 11-1/4 in. x 10-1/2 in. basin

## PARTS KIT, FAUCET

4 components consists of: Faucet top cam spring, gasket, packing ring, and seat ring.

00-690-7801

11 components consists of: cam assembly (1), spring (2), O-rings (4), Black Rubber gasket (1), Black Rubber gasket washer (2), and Allen wrench (1).

00-333-5475

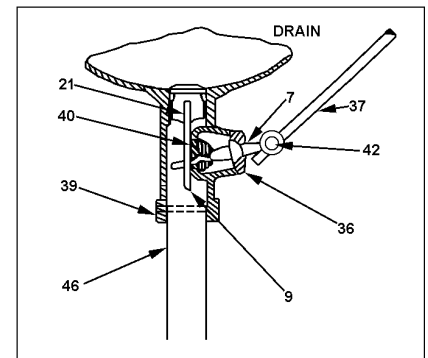
12 components consists of: 1 cap, 1 top spring, 1 locknut, 1 gasket, 1 top cam, 1 bottom cam, 1 spring, 1 centerpiece, 1 O-ring, 1 sleeve, 1 seat washer, 1 stem.

01-358-2530

16 components consists of: cup washer (2), O-ring (2), O-ring (2), seat washer with ring (2 each), screen (2), and strainer (4). End item: FAUCET, DOUBLE, 4510-01-296-6859.

01-298-1344

REPAIR PARTS FOR LAVATORY



Repair or replacement parts for existing metal lavatories. NAVSHIP Drawing S3601-860284, -860285, -860296.

NIIN	Item Name	NAVSHIP Dwg Pc No.
00-372-0691 <sub>NP</sub>	Actuator swivel	7
00-300-6996 <sub>NP</sub>	Stopper drain	9
00-300-6994 <sub>NP</sub>	Coupling nut, rod	36
00-300-6998 <sub>NP</sub>	Rod, drain operating	37
00-372-0772 <sub>NP</sub>	Coupling nut, body	39
00-300-6999 <sub>NP*</sub>	Spring, drain operating	40
00-300-7000 <sub>NP</sub>	Swivel connector	42
00-372-0791 <sub>NP</sub>	Tailpiece, waste	46
* FSC 5360		

## PARTS KIT, FAUCET, WASHER

200 assorted Synthetic Rubber washers. 28 each size 00-1/2 inch outside diameter, 24 each size 0-17/32 inch outside diameter, 40 each size 1/4-9/16 inch outside diameter, 40 each size 1/4-19/32 inch outside diameter, 28 each size 3/8-5/8 inch outside diameter, 10 each size 3/8 L-11/16 inch outside diameter, and 10 each size 1/2-3/4 inch outside diameter.

00-903-6378

## PARTS KIT, FLUSH VALVE

Includes: O rings, piston spring, compression springs, flex-sac assembly, and seat assembly.

01-144-9216

## PARTS KIT, SHOWER HEAD

Consisting of 1 each: knob, stem, hex-nut, washer, disc, plunger, distributor, bushing, seal, and spring.

01-137-3327

## PARTS KIT, URINAL

Consisting of: 1 sleeve, 1 pad, 2 bolts, 5 washers, 3 nuts, 1 snubber, 1 screw, 1 reducer, 1 hose, 1 strip, 1 tailpiece, 4 rings, 1 gasket, 1 waste hose, 2 clamps, 1 pc tubing.



01-051-0328

Consisting of: 1 S-5 gasket, 1 S-14-A cup, 1 S-120 valve seat, 1 S-20 valve seat, 1 S-123-A main seat, 1 S-21 main seat, 1 B-39 seal, 1 A-31 gasket, 1 S-10 gasket, 1 M-10 gasket.

01-113-7869

## PARTS KIT, WATER CLOSET

4 components consists of: Supply elbow (1), Ring, escutcheon (1), Ring, union (1), Washer (1).

01-123-3020

## PARTS KIT, WATER MIXING VALVE

Consisting of: 1 mounting bracket, 2 bushing, 1 mixing plate, 1 mixing bar, 1 stem, 1 shower unit.

01-329-5024

Consisting of: 2 washers, 2 seals, 5 screws.

01-329-5025

Consisting of: 1 balance module, 2 washers, 2 O-ring, 1 seat washer, 1 plunger, 1 hot stem, 1 packing.

01-325-6379

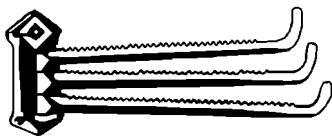
## PRERINSE SPRAY UNIT

Sink mounted, deck type faucet. 1/4 inch external thread NPT. Hot and Cold connections. 40 inch overall height. With spring action at goose neck, manually operated spray valve.

01-063-1899

## RACK, TOWEL

Swing-arm towel rack. Nickel-Chrome Plated Brass. Furnished with 3-arms (9-1/2, 10-1/4, and 10-3/4 inch), and hardware for exposed, screw style bulkhead mounting.



00-142-1219

## SEAL RING, CLOSET BOWL FLANGE

Wax seal with Plastic flange. Accommodates 4.000 inch outside diameter drain outlet. 2.167 inch thick.

00-140-3856

## SEAT, WATER CLOSET

Seats of molded Plastic, Plastic and hard Rubber, and/or Plastic and wood with pyroxylin seat surface treatment, as specified. Bumpers are Rubber or any Plastic material, having appearance comparable to seats and covers.

### Plastic

Fits elongated bowl. Open front without seat cover.



Black

00-247-1370 Seat check and extended back.

White

00-202-7702 Self-sustaining hinge and extended back.

Fits round front bowl. Open front seat .

White

00-202-7688 Non check type hinge and extended back

01-112-3867 Self-sustaining hinge, extended back

Fits round front bowl, closed front seat with cover.

00-202-7686 Non check type hinge and extended back.

### Plastic and Hard Rubber

Fits round front bowl. Open front without seat cover.

White

00-277-1645 Self-sustaining hinge and extended back.

Black

00-277-7152 Standard hinge, no extended back.

## SHOWER BATH FIXTURE

Shower fixture, Chrome-Plated, exposed Steel Two valve. 1/2 inch female inlets. 8 inch centers, indexed cross handles. Ball joint shower head, goose neck, riser with wall support, and drain plug.

00-454-4352

Nickel Chrome finished. 1/2 inch IPS, wall mounted, integral ball joint and concealed volume control, bent arm and wall flange, adjustable spray.

01-038-7682

Low flow, hand held features. Copper Alloy. 4-1/2 inch Center to center distance between valves, concealed.

01-092-4155

## SHOWER HEAD

Ball-joint shower heads. 1/2 inch female inlet, adjustable spray.

Nickel Plated Brass. Volume or spray regulator. Any acceptable pattern design. Internal threads. Portable or wall mount.

01-316-7423

### Angle Pattern Design

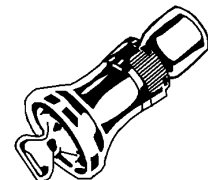
With integral automatic flow control. Nickel-Chrome Plated Brass or Plastic body. Restricted flow rate of 1.7 GPM. For shipboard use.



00-191-5244

### Straight Pattern Design

Without flow control. Chrome Plated Brass body and faceplate or diffuser. Internal threads.



00-202-7703

00-542-4917 Wall mounted

01-180-6357 A/A pattern design

## STOPPER, WASTE DRAIN

White Rubber Basin Stoppers. With Chrome or Nickel Plated ring and post.



Size/In.

00-242-4358

1

00-242-4359

1-1/8

00-242-4357

1-1/4

00-242-4360

1-1/2

00-242-4361

1-3/4

# CLASS 4510

## TAILPIECE, WASTE DRAIN

Chrome Plated Brass material. 1.500 inch outside diameter with flared end, for 1.500 inch drain outlet.

	Lg/In.
00-317-3800	8.000
00-444-1795	12.000

## TRAP, DRAIN, PLUMBING FIXTURE

Chrome-Plated Brass P-Traps. With clean-out plug. Size/Inch listed below.

Cast-Brass Plain Trap. Nonadjustable. With female NPT threaded outlet.



	Inlet	Outlet
00-756-1145*	1-1/4	1-1/4
00-061-4454	1-1/2	1-1/2

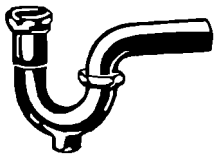
\* With slip joint connection.

Adjustable trap with cast Brass elbow. With female NPT threaded outlet and swivel joint.



	Inlet	Outlet
00-595-0922	1-1/2	1-1/2

Adjustable slip joint inlet and outlet. Brass.



	Inlet	Outlet
00-245-9497	1-1/2	1-1/2

Adjustable slip joint inlet and outlet. Bronze includes swivel and clean out plug.

	Inlet	Outlet
01-363-2569	2	2

## URINAL, STATIONARY

Aluminum wall mounted bowl unit. Width 8.375 inch. Trough length 6.000 inches and overall height 10.250 inches. Furnished with 1 drain screen.

00-885-7570

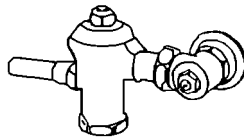
Lightweight Vitreous China wash-out urinal. With integral strainer, 3/4 inch top inlet, and 1-1/2 inch bottom outlet spud. Designed for shock-mounting on bulkhead. 13-1/4 inch height, 10 inch width. NAVSHIP Drawing 810-1385868.

00-727-1727

## VALVE, FLUSH

Shipboard flushometers. Nickel-Chrome Plated Bronze flush valves of sealed design for use in sea, harbor, and river waters. With metal oscillating handle and inlet for SILBROZ connection. Furnished without flow control stops.

Urinal flush valve. For concealed type installations. Handle located 90 degrees from inlet. 1 inch NPS male inlet tailpiece. 3/4 inch outside diameter tube outlet furnished with nut and washer for adapter-piece outlet.



00-013-7464

Shore use flushometer. Chrome-Plated Brass flush valve, designed for use in fresh water. With metal oscillating handle. Female NPT threaded inlet, and slip tailpiece outlet. Furnished with angle flow control stop, vacuum breaker, and spud nut

With cover. Handle located 180 degrees from inlet for exposed type installations.

Pressure flush valve connection on right hand side. 3/4 inch. inlet and outlet size.

00-278-9549

Pressure flush type. Top and bottom guided disk flow. Right side inlet connection. 1 inch inlet and outlet.

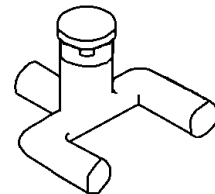
00-245-9476

For exposed type installations. Brass flush valve. Designed for use in fresh water. First end, right hand 3/4 inch threaded internal pipe. Second end, 3/4 inch unthreaded internal pipe. Handle located 180 degrees from inlet right side.

01-078-0652

## VALVE, WATER MIXING

Bronze spring-loaded piston control device. Three identical unthreaded internal pipe end connections, all of which accommodate 1/2 inch pipe size. 100 PSI steam at 100 degrees Fahrenheit. For fresh water, threaded internal.



01-036-4035

# GROUP 47

## PIPE, TUBING, HOSE AND FITTINGS

### CLASS 4710

#### PIPE, TUBE AND RIGID TUBING

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### PIPE

A straight hollow metallic product, over 12 inches long, welded or seamless construction, of continuous periphery. Has a uniform cross section and dimensions conforming to standard pipe tables.

00-542-2913 <sub>NP</sub>	1
00-542-2914 <sub>NP</sub>	1-1/4
00-542-2915 <sub>NP</sub>	1-1/2
00-542-2916 <sub>NP</sub>	2

type, with plain or beveled ends. Lengths 16 to 22 feet.

Plain Ends, Seamless Type, Standard Wall.

	Size
00-277-8705 <sub>NP</sub>	1

Beveled Ends, Seamless Type, Standard Wall, Black Finish.

	Size
00-277-8702 <sub>NP</sub>	3/8
00-277-8703 <sub>NP</sub>	1/2
00-277-8704 <sub>NP</sub>	3/4
00-277-8707 <sub>NP</sub>	1-1/2
00-277-8708 <sub>NP</sub>	2
00-277-8709 <sub>NP</sub>	2-1/2
00-277-8710 <sub>NP</sub>	3
00-277-8711 <sub>NP</sub>	3-1/2
00-277-8712 <sub>NP</sub>	4
00-277-8713 <sub>NP</sub>	5
00-277-8715 <sub>NP</sub>	8

ASTM A106, Grade B

Plain Ends, Seamless Type, Schedule 40.

	Size
00-993-5036 <sub>NP</sub>	1/2
01-025-9583 <sub>NP</sub>	3/4
00-961-9174 <sub>NP</sub>	1
00-892-5914 <sub>NP</sub>	1-1/2
00-849-0871 <sub>NP</sub>	2
00-892-5913 <sub>NP</sub>	2-1/2

Plain Ends, Seamless Type, Schedule 80.

	Size
01-363-4159 <sub>NP</sub>	1/2
00-961-9175 <sub>NP</sub>	2-1/2
01-012-6806 <sub>NP</sub>	3

ASTM A53, grade A

Beveled Ends, Welded Type, Standard Wall, Black finish.

	Size
00-278-5350 <sub>NP</sub>	3/4
00-278-5351 <sub>NP</sub>	1
00-278-5348 <sub>NP</sub>	1-1/4
00-278-5349 <sub>NP</sub>	1-1/2
00-278-5346 <sub>NP</sub>	2

#### TUBE

A straight hollow metallic product, over 12 inches long, welded or seamless construction, of round, square, or any other cross section. Continuous periphery, which do not conform to cross sectional dimensions to standard pipe tables for wall thickness (tube may have the same outside diameter as pipe).

#### BRASS

Red Brass. Annealed. Salt air, gases, or corrosion resistant. Lengths 12 to 20 feet.

#### Standard Wall

	Size
00-277-6088 <sub>NP</sub>	1/8
00-289-2848 <sub>NP</sub>	1/4
00-277-7741 <sub>NP</sub>	3/8
00-289-2851 <sub>NP</sub>	1/2
00-277-6084 <sub>NP</sub>	3/4
00-277-7739 <sub>NP</sub>	1
00-277-6086 <sub>NP</sub>	1-1/4
00-277-6087 <sub>NP</sub>	1-1/2
00-289-2854 <sub>NP</sub>	2

#### Extra Strong Wall

	Size
00-277-6078 <sub>NP</sub>	1/4
00-277-6080 <sub>NP</sub>	1/2
00-542-2918 <sub>NP</sub>	3

#### CARBON STEEL

Shipboard Use. For oil, water, gas, and steam service, in fuel oil heaters, boiler water wall, water screen, and economizer headers. Cold finished, normalized, and stress-relieved. Seamless, with plain ends. Length 10 to 12 feet. 400 pound operating pressure.

#### Extra Strong Wall, Schedule 160.

	Size
00-810-4504 <sub>NP</sub>	1/2
00-810-4505 <sub>NP</sub>	3/4
00-810-4506 <sub>NP</sub>	1
00-810-4503 <sub>NP</sub>	1-1/2
00-810-4507 <sub>NP</sub>	2

#### ASTM A53, Grade B

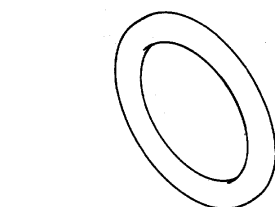
Miscellaneous Service. For overflows and sounding tubes, vents, air intakes, and hanger deck sprinkler systems. Hot finished, normalized, and tempered. Seamless or welded

### PIPE, METALLIC

#### ALUMINUM

Alloy 5086, Temper H32, strain hardened and stabilized, one fourth hard. Good strength, weldable. Seamless, with plain ends. Lengths 16 to 20 feet.

#### Standard Wall



	Size
00-542-2903 <sub>NP</sub>	1/2
00-542-2904 <sub>NP</sub>	3/4
00-542-2905 <sub>NP</sub>	1
00-542-2906 <sub>NP</sub>	1-1/4
00-542-2907 <sub>NP</sub>	1-1/2
00-542-2908 <sub>NP</sub>	2
00-542-2909 <sub>NP</sub>	2-1/2
00-542-2910 <sub>NP</sub>	3
00-542-2911 <sub>NP</sub>	3-1/2
00-542-2912 <sub>NP</sub>	4

#### Extra Strong Wall

# CLASS 4710

Beveled Ends, Welded Type, Extra Strong Wall, Black Finish.

	Size
00-277-3954 <sub>NP</sub>	1/4
00-277-3955 <sub>NP</sub>	3/8
00-277-3956 <sub>NP</sub>	1/2
00-277-3957 <sub>NP</sub>	3/4
00-277-3960 <sub>NP</sub>	1-1/2

Beveled Ends, Welded Type, Standard wall, Zinc coated. Schedule 40. 16 to 22 feet.

	Size
00-277-5472 <sub>NP</sub>	3/4
00-277-5473 <sub>NP</sub>	1
00-277-5468 <sub>NP</sub>	1-1/4
00-277-5469 <sub>NP</sub>	1-1/2
00-277-5466 <sub>NP</sub>	2
00-277-5467 <sub>NP</sub>	2-1/2

General Purpose Use. For steam, water, gas, and air line service. Not intended for close coiling, bending, flanging, or maximum sustained operating temperature above 450 degrees Fahrenheit. Hot or cold finish. Plain ends or threaded male ends, with one coupling. Lengths 16 to 22 feet for standard wall, and 12 to 22 feet for extra strong wall.

Plain Ends, Black Finish, Extra Strong Wall.

	Size
00-277-7449 <sub>NP</sub>	1/4
00-277-7451 <sub>NP</sub>	1/2
00-277-7455 <sub>NP</sub>	1-1/2

For use in fuel oil heaters, boiler water wall, water screen, economizer headers, and for other related applications as may be satisfactory to the activity concerned. 10 to 12 feet.

Plains Ends, Seamless Type, Schedule 80.

	Size
00-846-9210 <sub>NP</sub>	3/8
00-640-6340 <sub>NP</sub>	1/2
00-640-6344 <sub>NP</sub>	3/4
00-640-6484 <sub>NP</sub>	1
00-640-6500 <sub>NP</sub>	1-1/4
00-640-6500 <sub>NP</sub>	4

Plain Ends, Seamless, Annealed. Schedule 80. Descaled finish. Lengths 24 feet nominal.

	Size
00-451-5181 <sub>NP</sub>	1/2

## COPPER

Hard Drawn Temper. For plumbing, boiler feed lines, and similar purposes. Seamless with plain ends. Lengths 12 to 20 feet.

Standard Wall

	Size
00-277-6099 <sub>NP</sub>	1/4
00-277-6100 <sub>NP</sub>	3/8
00-277-6101 <sub>NP</sub>	1/2
00-277-6068 <sub>NP</sub>	3/4
00-277-6069 <sub>NP</sub>	1
00-277-6126 <sub>NP</sub>	1-1/4
00-277-6127 <sub>NP</sub>	1-1/2

## CRES

Austenitic Steel. For high temperature and general hydraulic or pressure service. Not intended for salt water systems or high pressure main steam lines. Seamless, with plain ends. Lengths 12 to 24 feet.

Composition 304, Seamless quenched and tempered type, Standard Wall.

	Size
00-893-8624 <sub>NP</sub>	1/4
00-893-8620 <sub>NP</sub>	1/2
00-893-8622 <sub>NP</sub>	3/4
00-893-8627 <sub>NP</sub>	1
00-893-8628 <sub>NP</sub>	1-1/4
00-893-8623 <sub>NP</sub>	1-1/2
00-893-8629 <sub>NP</sub>	2
00-893-8631 <sub>NP</sub>	3

CRES. Composition 304. 18 percent Chromium, 8 percent Nickel, descaled. Seamless, with plain ends. 4500 PSI OP. Lengths 24 feet.

	Size
00-432-3044 <sub>NP</sub>	1/2
00-432-3049 <sub>NP</sub>	1
00-432-3055 <sub>NP</sub>	2

## NICKEL COPPER ALLOY

Monel, Cold Drawn, and Stress-relieved. Good strength and corrosion resistant. Lengths 5 to 24 feet. Seamless, with plain ends.

Standard wall, Schedule 40

	Size
00-277-2466 <sub>NP</sub>	1/4
00-277-2467 <sub>NP</sub>	3/8
00-277-2468 <sub>NP</sub>	1/2
00-277-2469 <sub>NP</sub>	3/4
00-277-2470 <sub>NP</sub>	1
00-670-0653 <sub>NP</sub> *	1
00-277-2471 <sub>NP</sub>	1-1/4
00-277-2472 <sub>NP</sub>	1-1/2
00-277-2473 <sub>NP</sub>	2
00-277-2474 <sub>NP</sub>	2-1/2

\* Any Acceptable length.

Annealed, descaled, seamless. 24 feet specific length. 4500 PSI operating pressure. Schedule 80.

	Size
00-670-0753 <sub>NP</sub>	1/2
00-432-3163 <sub>NP</sub>	1/2
00-455-0195 <sub>NP</sub>	1/2
00-432-3164 <sub>NP</sub>	1
00-455-0197 <sub>NP</sub>	1

## PIPE, PLASTIC

Rigid. Capable of being bent and formed when heated. High impact Polyvinyl Chloride. For cold sea water and potable drinking water. Not to exceed 140 degrees Fahrenheit. Seamless, with plain ends. Length, 20 feet.

	Size	PSI 77 deg F
00-541-6617	1	A/A
00-541-6618*	1-1/4	420

	Size	PSI 77 deg F
00-541-6619	1-1/2	260
00-541-6620	2	290

\* Any Acceptable Length.

## TUBE, METALLIC

### ALUMINUM ALLOY

Alloy 1100-Temper H-14. Strain hardened, half-hard. Good formability. Seamless, with plain ends. Lengths 8 to 12 feet.

Standard Wall

	Dia/In.
00-278-4975 <sub>NP</sub>	1.050
00-278-4976 <sub>NP</sub>	1.315
00-278-4973 <sub>NP</sub>	1.660
00-278-4974 <sub>NP</sub>	1.900
00-278-4971 <sub>NP</sub>	2.375

Alloy 6061, Temper T6. Solution heat treated and artificially aged. Seamless, with plain ends. Aircraft hydraulic quality. For use in hydraulic and pneumatic systems of aircraft.

	Dia/In.	Thk/In	Lg/Ft
00-816-4949 <sub>NP</sub>	.188	.028	10-12
00-289-2781 <sub>NP</sub>	.250	.035	10-12
00-684-5074 <sub>NP</sub>	.375	.035	12
00-289-2785 <sub>NP</sub>	.375	.049	10-12
00-142-3010 <sub>NP</sub>	.500	.035	8-12
00-279-0020 <sub>NP</sub>	.625	.035	10-12
00-289-2537 <sub>NP</sub>	1	.049	10-12
00-278-5784 <sub>NP</sub>	1	.035	10-12

Alloy 6061. Seamless, with plain ends. Heat treated, artificially aged.

Round

	Dia/In.	Thk/In.	Lg/Ft
00-278-2097 <sub>NP</sub>	.250	.035	10-12
00-278-6430 <sub>NP</sub>	.750	.058	10-12
01-210-0319 <sub>NP</sub>	.500	.035	12

Square

	Sq/In.	Thk/In.	Lg/Ft
00-106-7381 <sub>NP</sub>	1.5	.083	10-12
00-106-7383 <sub>NP</sub>	2	.061	8-12

## COPPER

General Shipboard Service. Cold drawn temper. For use with brazed and solder-type fittings, when bending or threading is required. Tube with adequate wall thickness should be specified. Seamless, with plain ends. Lengths 12 to 20 feet.

	OD/In.	Thk/In.
00-277-4032 <sub>NP</sub>	.188	.032
00-277-4029 <sub>NP</sub>	.250	.032
00-278-2213 <sub>NP</sub>	.250	.049
00-277-4030 <sub>NP</sub>	.312	.032
00-277-4027 <sub>NP</sub>	.375	.032
00-277-4026 <sub>NP</sub>	.500	.032
00-277-4596 <sub>NP</sub>	.540	.065
00-277-4602 <sub>NP</sub>	.540	.072
00-278-2198 <sub>NP</sub>	.540	.109
00-277-4597 <sub>NP</sub>	.675	.065

	OD/In.	Thk/In.
00-277-4023 <sub>NP</sub>	.840	.065
00-277-4033 <sub>NP</sub>	1.050	.065
00-277-4034 <sub>NP</sub>	1.315	.065
00-277-4623 <sub>NP</sub>	1.660	.065
00-277-4624 <sub>NP</sub>	1.900	.065
00-277-4613 <sub>NP</sub>	2.375	.065
00-277-4606 <sub>NP</sub>	2.875	.065
00-277-4608 <sub>NP</sub>	4	.065

Water and Refrigeration Services. Annealed Temper. Coiled tubes are dehydrated. Sealed at both ends, with metal or Plastic caps, or plugs soldered or bonded to tube end to exclude dirt and air.

20 foot Coils, Hard Drawn Temper.

	OD/In.	Thk/In.
00-278-2214 <sub>NP</sub>	.250	.032
00-278-2215 <sub>NP</sub>	.375	.030
00-278-2216 <sub>NP</sub>	.500	.035
00-277-4533 <sub>NP</sub> *	.500	.049
00-278-2217 <sub>NP</sub>	.625	.049
00-277-6119 <sub>NP</sub>	.750	.049

\* 60 Foot Coils, Annealed Temper.

Aramide fiber insulated covering. Seamless, with plain ends. Soft annealed, coiled. Non-Spec items.

Minimum 10 foot coil.

	OD/In.	Thk/In.
00-039-5702	.125	.018

Refrigeration, Tempered. Annealed tube supplied in 25 foot coils, for fuel, water, oil, and air lines in aircraft and automobiles. Annealed tubes supplied in 50 foot coils are for refrigeration field service.

25 foot Coils, Annealed Temper.

	OD/In.	Thk/In.
00-277-7581 <sub>NP</sub>	0.125	0.030
00-277-5524 <sub>NP</sub>	0.188	0.030
00-277-5525 <sub>NP</sub>	0.250	0.030

50 foot Coils, Annealed Temper.

	OD/In.	Thk/In.
00-203-3171 <sub>NP</sub>	0.250	0.030
00-424-2694 <sub>NP</sub>	0.500	0.032

## COPPER ALLOY

Condenser and Heat Exchanger Service. Copper-Nickel Alloy. For use in heat exchangers and condensers which use sea water as the cooling medium. Fully annealed temper. Seamless, with plain ends.

## Composition 70-30

	OD/In.	Wall Thk/In.	Lg/Ft
00-289-3439 <sub>NP</sub>	0.250	0.028	10
00-289-3436 <sub>NP</sub>	0.250	0.035	10
00-289-3437 <sub>NP</sub>	0.250	0.049	20
00-278-8498 <sub>NP</sub>	0.375	0.049	20
00-278-7859 <sub>NP</sub>	0.625	0.049	20
00-278-7865 <sub>NP</sub>	0.750	0.049	20

## Composition 90-10

	OD/In.	Wall Thk/In.	Lg/Ft
00-278-8479 <sub>NP</sub>	.375	.049	20
00-278-8487 <sub>NP</sub>	.625	.049	20

Sea Water, Hydraulic, and High Pressure Air and Nitrogen Systems. Copper Alloy. Various PSI WP. Salt air and water corrosion resistant. Fully annealed temper. Seamless, with plain ends.

## Composition 70-30

	OD/In.	Wall Thk/In.	Lg/Ft
00-455-0192 <sub>NP</sub>	.245	.049	20
00-926-1201 <sub>NP</sub>	.250	.058	12-20
00-118-8885 <sub>NP</sub>	.250	.065	12-15.5
00-555-0934 <sub>NP</sub>	.375	.049	12-25
00-926-1180 <sub>NP</sub>	.540	.072	12-20
00-087-1470 <sub>NP</sub>	.540	.065	12-25
00-926-1197 <sub>NP</sub>	.540	.120	12-20
01-059-1099 <sub>NP</sub>	.540	.120	18.6
00-877-7408 <sub>NP</sub>	.840	.065	12-25
00-926-1199 <sub>NP</sub>	.840	.072	12-20
00-926-1196 <sub>NP</sub>	.840	.120	12-20
00-087-1469 <sub>NP</sub>	1.050	.065	12-25
00-277-4543 <sub>NP</sub>	1.315	.065	12-25
00-118-8895 <sub>NP</sub>	1.315	.120	12-15.5
00-432-3127 <sub>NP</sub>	1.315	.180	20
00-926-4148 <sub>NP</sub>	1.315	.180	12-18
00-877-7417 <sub>NP</sub>	1.660	.072	12-25
00-118-8897 <sub>NP</sub>	1.660	.120	12-15.5
00-289-7993 <sub>NP</sub>	1.900	.072	12-25
00-926-4150 <sub>NP</sub>	1.900	.109	12-20
00-289-7994 <sub>NP</sub>	2.375	.083	12-20
00-926-4143 <sub>NP</sub>	2.375	.120	12-20
00-289-7995 <sub>NP</sub>	2.875	.083	12-25
00-829-3036 <sub>NP</sub>	3.500	.095	12-20
00-926-4177 <sub>NP</sub>	3.500	.165	10-20
00-604-8221 <sub>NP</sub>	4.000	.095	12-20
00-604-8328 <sub>NP</sub>	4.500	.109	12-20

## Composition 90-10

	OD/In.	Wall Thk/In.	Lg/Ft
00-277-4651 <sub>NP</sub>	.250	.035	12-20
00-277-4652 <sub>NP</sub>	.500	.035	12-16
00-277-4653 <sub>NP</sub>	.540	.065	12-25
00-277-4654 <sub>NP</sub>	.675	.065	12-25
00-277-4655 <sub>NP</sub>	.840	.065	12-25
00-277-4656 <sub>NP</sub>	1.050	.065	12-25
00-277-4657 <sub>NP</sub>	1.315	.065	12-25
00-289-8004 <sub>NP</sub>	1.660	.072	12-25
00-289-8005 <sub>NP</sub>	1.900	.072	12-25
00-289-8006 <sub>NP</sub>	2.375	.083	12-25
00-289-8007 <sub>NP</sub>	2.875	.083	12-25
00-604-7978 <sub>NP</sub>	3.500	.095	12-20
00-277-4663 <sub>NP</sub>	4.000	.095	12-20
00-604-7942 <sub>NP</sub>	4.500	.109	12-20
00-604-7989 <sub>NP</sub>	5.563	.125	10-18
00-604-8027 <sub>NP</sub>	6.625	.134	10-16
00-604-8050 <sub>NP</sub>	8.625	.151	8-12

## CRES

Composition AISI 304 (Temper one eighth hard, cold drawn). For use in high pressure hydraulic and pneumatic systems. Not suitable for welding or brazing. Lengths 5 to 20 feet except where noted.

Seamless, with Plain Ends.

	OD/In.	Wall Thk/In.	Lg/Ft
00-278-3297	.188	.028	10-20
00-825-5894 <sub>NP</sub>	.250	.020	—
00-278-3294 <sub>NP</sub>	.250	.028	—
00-278-3292 <sub>NP</sub>	.250	.049	—
00-471-8593 <sub>NP</sub>	.250	.065	—
00-278-3281 <sub>NP</sub>	.375	.028	—
00-516-4831 <sub>NP</sub>	.375	.049	—
00-595-2785 <sub>NP</sub>	.500	.028	—
00-813-9872 <sub>NP</sub>	.500	.049	12
00-278-3300 <sub>NP</sub>	.500	.065	—
00-278-3305 <sub>NP</sub>	.625	.035	—
00-278-3302 <sub>NP</sub>	.625	.049	—
00-278-3314 <sub>NP</sub>	.750	.035	—
00-443-4773 <sub>NP</sub>	.750	.049	—
00-278-3317 <sub>NP</sub>	1.000	.035	—
00-278-3320 <sub>NP</sub>	1.000	.049	—

Composition AISI 347, CRES. Annealed. Seamless, with plain ends.

	OD/In.	Wall Thk/In.	Lg/Ft
00-273-7948 <sub>NP</sub>	.250	.035	5-24
*00-580-9154 <sub>NP</sub>	.250	.049	10-12

\* Straight seamed, with plain ends.

## STEEL

Carbon Steel Seamless Tubes with plain ends. For naval oil, water, steam, and gas service at temperature not over 775 degrees Fahrenheit. Length 12 to 24 feet.

600 PSI WP, Hot or Cold Finished.

	OD/In.	Thk/In.
00-277-7448 <sub>NP</sub>	0.250	.065
00-277-7450 <sub>NP</sub>	0.675	.120
00-277-7452 <sub>NP</sub>	1.050	.120
00-277-7453 <sub>NP</sub>	1.315	.120
00-277-7454 <sub>NP</sub>	1.660	.120
00-289-4513 <sub>NP</sub>	2.375	.134
00-289-4514 <sub>NP</sub>	2.875	.165

Special Service Annealed. 700 PSI WP.

	OD/In.	Wall Thk/In.	Lg/Ft
00-640-6481 <sub>NP</sub>	.540	.120	12-24
00-640-6477 <sub>NP</sub>	.675	.120	12-20
00-541-5167 <sub>NP</sub>	1.315	.120	12-20
00-541-5169 <sub>NP</sub>	1.660	.167	12-20
00-812-2588 <sub>NP</sub>	1.900	.200	12-24
00-541-5170 <sub>NP</sub>	1.900	.350	12-20
01-023-7259 <sub>NP</sub>	2.375	.218	20-24
00-541-5171 <sub>NP</sub>	2.375	.300	12-24

Seamless. 400 PSI.

	OD/In.	Wall Thk/In.	Lg/Ft
00-277-7246	72.375	.120	12-24

Chromium-Molybdenum Alloy. Seamless Steel tubes with plain ends, 1200 to 1500 PSI OP. Normalized and tempered lengths. 20 to 24 feet.

1-1/4 percent Chromium, .05 percent.

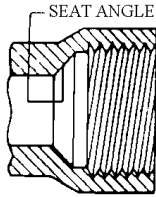
Molybdenum Steel.

# CLASS 4710

	OD/In.	Thk/In.
00-542-4323 <sub>NP</sub>	.840	.120
00-542-4324 <sub>NP</sub>	1.050	.120

## TUBE ASSEMBLY, METAL

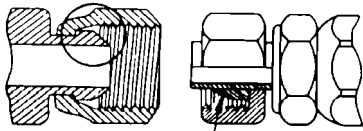
Pre-bent form, RH thread direction. Non Spec Items. Flare connections both ends. 3/8 -24 UNF, 45 degree seat angle.



FLARE

	OD/In.	Thk/In.
00-792-8984 <sub>NP</sub>	.188	.025

Swivel nut, inverted flare. 1/2-20 UNF. Seat angle, 30 degrees. Swivel nut with compression sleeve, 5/8-20 UN. Seat angle 12 degrees.



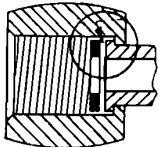
SEAT ANGLE OR RADIUS

	OD/In.	Thk/In.
00-654-9021 <sub>NP</sub>	.250	.083

Swivel nut, Gasket seal, both ends. 7/16-24.

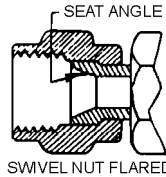
UNS.

Brass



	OD/In.	Thk/In.
00-105-3212	.190	.043

Swivel nut flared, both ends. 3/8-24 NF or UNF. Seat angle, 45 degrees.

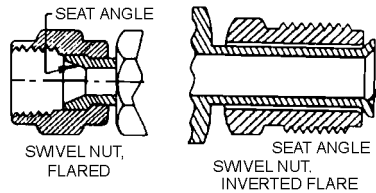


SWIVEL NUT FLARED

	OD/In.	Thk/In.
00-364-3452 <sub>NP</sub> *	.188	.028
00-020-2733 <sub>NP</sub>	.188	.028

\* Diesel engine application

Swivel nut flared, 3/8-24 UNF, and Swivel nut inverted flare, 7/16-24 UNS. Seat angle, 45 degrees.

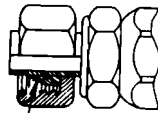


SWIVEL NUT, FLARED

SWIVEL NUT, INVERTED FLARE

	OD/In.	Thk/In.
00-093-5751 <sub>NP</sub>	.250	.062

Swivel nut, Compression sleeve, both ends. 5/8-18 UNF. Seat angle, 45 degrees.



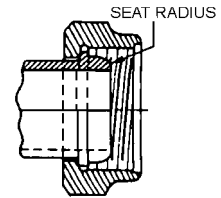
SEAT ANGLE OR RADIUS

SWIVEL NUT with COMPRESSION SLEEVE

	OD/In.	Thk/In.
00-301-5114 <sub>NP</sub>	.312	.120

Swivel nut, compression, both ends. 1/2-18 UNF.

Seat angle, 62 degrees.



SWIVEL NUT, COMPRESSION

	OD/In.	Thk/In.
00-073-3212 <sub>NP</sub>	.240	.070
00-073-3209 <sub>NP</sub> *	.250	.072

\* Seat radius, 0.125.

## TUBING, NONMETALLIC

GLASS

Round, rigid, clear, smooth

	ID/In.	OD/In.	Lg/In.
00-716-7716 <sub>NP</sub>	.322	.740	1.380

PLASTIC

Round, rigid

	ID/In.	OD/In.	Lg/In.	Color
00-087-1645	.500	.625	36	Clear
00-087-1644	.625	.750	36	A/A

## CLASS 4720 HOSE AND FLEXIBLE TUBING

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

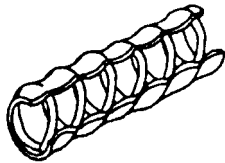
### GUARD, HOSE-TUBING

Tube guard. 370.8 inch, overall length. Temperature range, minus 65 to plus 600 degrees Fahrenheit. 4.240 inch inside diameter.

00-106-7360

### HOSE, AIR DUCT

HELICALLY WOUND, CONTINUOUS WIRE, SUPPORTED.



Fiberglass and Rubber Chloroprene cloth and wire, and Fiberglass and Rubber Chloroprene reinforcing cord. Temperature range, minus 65 to plus 275 degrees Fahrenheit. Operating Pressure, 4 pounds PSI. Both ends soft.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-409-8810	2.000	10.500	.065	1.250
00-409-8812	2.000	20.000	.065	1.250
01-027-2296*	6.000	8.000	.175	—

\* Operating pressure, 7 pounds. Temperature range, minus 20 to plus 250 degrees Fahrenheit.

Chloroprene Rubber impregnated Fiberglass cloth and wire, and Chloroprene Rubber impregnated Fiberglass cloth and Fiberglass cord. Wall thickness 0.150 inches. Not ozone resistant. Temperature range, minus 65 to plus 275 degrees Fahrenheit. Operating pressure, 20 PSI. First end plain. Second end soft type.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-455-2129	1.500	30	.050	1.000

Cotton and Rubber Synthetic material 1st and 2nd ply. Steel, Corrosion Resisting reinforcing wire. Temperature range, minus 40 to plus 160 degrees Fahrenheit. 8 pound operating pressure. Both ends are soft.

	ID/In.	Lg/In.	End Lg/In.
00-403-6410	3.000	110.000	1.000

Three layers of, Silicone impregnated Fiberglass cloth and one layer Fiberglass cord and Bronze Coated Steel wire. Not ozone resistant. Temperature range, minus 75 to plus 500

degrees Fahrenheit. Maximum operating pressure, 35 PSI. Both ends soft.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-445-4416	3.000	23	.080	1.250

Materials consist of Cotton, Linen, Fortisan, or Fiberglass impregnated. With thermosetting type Resin or Synthetic Rubber and wire. Vibration, solvent, water, flame, fungus, and ozone resistant. Temperature range, minus 65 to plus 300 degrees Fahrenheit. Maximum operating pressure, 16 PSI. Both ends soft.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-067-6375	4.000	26.500	—	1.550

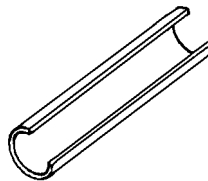
Plastic Polyvinyl Chloride, one ply. First end plain. Minimum bending radius .500 inches. Temperature range, minus 20 to plus 150 degrees Fahrenheit. Operating pressure, 10 PSI.

	ID/In.	O/A Lg/In.
01-216-1092	1	30

Fiberglass, one ply. Temperature range, minus 65 to plus 400 degrees Fahrenheit. Maximum operating pressure, 90 pounds PSI.

	Wall Thk/In.	ID/In.	O/A Lg/In.
00-106-7359	.040	3.500	360

### SLEEVE SECTION



Rubber Silicone, 5 sleeve section. Temperature range, minus 65 to plus 450 degrees Fahrenheit.

	Wall Thk/In.	ID/In.	O/A Lg/In.
00-564-1413	.025	3.500	360

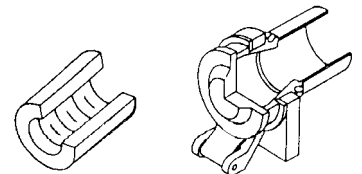
Rubber Synthetic and Fiberglass Rubber Chloroprene 2nd ply material. 5 sleeve section with a wall thickness .085 inches inside diameter 3.000 inches and overall length 2.750 inches. Both ends plain.

	Wall Thk/In.	ID/In.	O/A Lg/In.
01-064-5895	.085	3.000	2.750

### HOSE ASSEMBLY, AIR BREATHING

HELICALLY WOUND, CONTINUOUS WIRE SUPPORTED

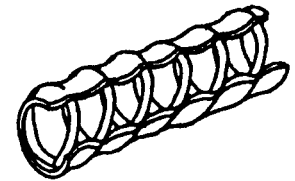
Ozone resistant. First end coupling style. Connector, Oxygen hose to regulator, and integral receptacle with 4 terminals. Second end, coupling 1/2-20 UNF with 4 receptacles, for communications cable.



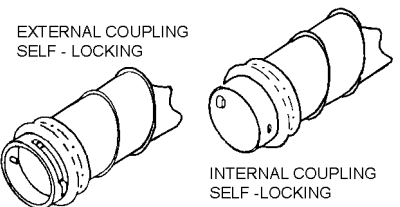
	ID/In.	Lg/In.
00-006-0429	.250	23.000

### HOSE ASSEMBLY, AIR DUCT

HELICALLY WOUND, CONTINUOUS WIRE SUPPORTED



Cotton duct fabric, reinforced with helically wound, continuous supported Zinc Plated wire. Impregnated with Synthetic Rubber. Intended for use with portable ventilating sets on ships, where non-magnetic equipment is not required. Fitted with Steel, Zinc Plated self-locking couplings. One female and one male.

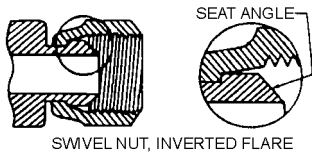


	ID/In.	Lg/In.
00-277-7225	8.000	184

# CLASS 4720

## HOSE ASSEMBLY, METALLIC

Two layers of braided Bronze wire. 1st end: threaded internal pipe, swivel nut inverted flare. 2nd end: 1/2 inch straight unthreaded pipe.



	ID/In	OD/In.	Lg/In.
00-391-5767	.500	1.150	14.500

Steel, Corrosion Resisting inside surface treatment. Annular, close-pitch corrugated tube style. Braided CRES wire. Passivated outside surface treatment. First end: threaded internal tube, with swivel nut flare straight end. Second end: threaded internal tube, with swivel nut flare. 90 degree elbow end connection.

	ID/In	OD/In.	Lg/In.
01-127-5856	.438	.740	25.250

Steel, Corrosion Resisting, inside surface treatment. Helical, open-pitch, corrugated tube style. Braided CRES wire. Passivated outside surface treatment. First end: threaded internal tube, with swivel nut flare, straight end. Second end: threaded internal tube, with swivel nut flare. 90 degree elbow end connection.

	ID/In	OD/In.	Lg/In.
01-031-7120	1.000	1.280	30.000

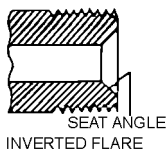
Steel, Passivated inside surface treatment. 1st layer: corrugated CRES. Outer layer: braided CRES wire. 20.250 inch overall length, minimum. Inside bending radius 2.500 inch. .500 inch NPT RH.

	ID/In	OD/In.	Lg/In.
01-019-9156	.458	.802	20.250

## HOSE ASSEMBLY, NONMETALLIC

### Air Service

Rubber. Covered by two layers of braided Rayon cord and an outer layer of Rubber. Fuel resistant. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Maximum operating pressure, 1250 PSI. Both ends identical, with 30 degree inverted flare seat angle, and 1/4-18 NPT external right hand thread. Inside bending radius, 3 inches.



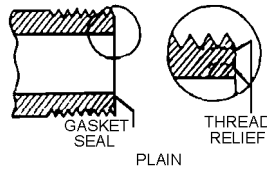
	ID/In	OD/In.	Lg/In.
00-554-9362	.250	.560	300

Rubber, Buna-N, smooth, inner conveying tube material. Threaded internal pipe thread 1st end.

Plain style, straight connection, .125 inch Right-hand National Pipe thread. Threaded external pipe. 2nd end: Swivel, plain with straight end connection, .125 inch Thread size. Bronze fitting with right-hand National Pipe threads. Special feature: Threaded external end, fitted with .90 degree elbow.

	ID/In	OD/In.	Lg/In.
01-171-4202	.250	.500	13.322

Rubber, covered by Synthetic molded Rubber, plain threaded external pipe connectors, both ends identical. 1/4-18 NPT. Furnished with: 1 adapter and 1 cap adapter, with chain and ring. Inside diameter 0.438 inches, outside diameter 0.750 inches.

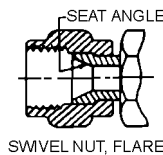


	ID/In	OD/In.	Lg/In.
00-770-0267	.438	.750	94

Plastic, Thermoplastic conveying tube material. 1st layer Braided Fiber, outer layer molded Plastic. Threaded internal tube, swivel nut flare. Straight end connection, with 37 degree seat angle. Steel fitting. 3/4 inch by 16 UN 3B. Right hand thread. 2nd end identical.

	ID/In	OD/In.	Lg/In.
01-213-0002	.375	.630	192

### Air, Fuel/Oil, Hydrocarbon and Fresh Water Service



Rubber. With 1 layer of CRES wire and an outer layer of Rubber impregnated, braided Cotton cord. Reusable end fittings. Temperature rating minus, 40 to plus 300 degrees Fahrenheit. Maximum operating pressure, 250 PSI. Minimum inside bending radius, 2.750 inches. Ends not identical. First end with 45 degree swivel nut flare, and 7/8-14 UNF-2B right hand thread. Second end with 30 degree inverted flare, and 1/2-14 NPTF external right hand thread.

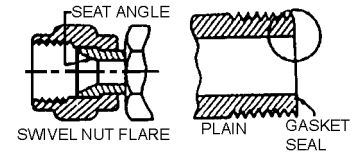
	ID/In	OD/In.	Lg/In.
00-461-3767	.500	.860	80

Rubber, Ethylene Propylene with smooth inside surface. 2nd layer: braided Rayon or Polyester cord. Outer layer: moulded Rubber Ethylene Propylene with a round shape. Threaded internal pipe, plain style with straight connection. Titanium, nipple. Corrosion Resisting Steel, nut and socket. 2nd end identical. 9/16 UNJF 3B thread size.

	ID/In	OD/In.	Lg/In.
01-320-8223	.380	.750	33.750

### Air, Water Service

Synthetic Rubber. 1st and 2nd layer: Braided textile yarn. Outer layer: Synthetic molded Rubber. First end type: threaded internal tube. 1/2 inch UNF. Swivel nut flared. Second end: threaded external pipe 1/4 inch NPT, plain end style. Bending radius, 2,000 inch. Brass fittings. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Operating pressure, 200 PSI. Furnished with nipple and sleeve.

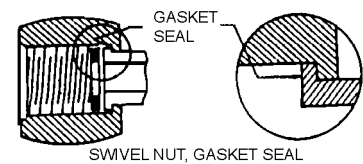
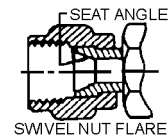


	ID/In	OD/In.	Lg/In.
00-289-4612	.312	.625	300

### Fire Fighting-CO2 Service

Aircraft fueling. Rubber. Gasoline resistant. Smooth bore, reinforced with Rubber impregnated braided Rayon cord. Has a Synthetic Rubber, abrasion, oxidation, and weather resistant cover. Supplied with, control cable and contact assembly. Brass.

Threaded female swivel nut. 2-1/2 NPSC coupling on one end, threaded male 2-1/2-8NPT plain coupling other end.

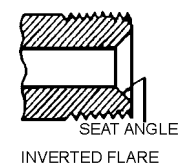


	ID/In	OD/In.	Lg/In.
00-289-0756	2.500	2.752	600

Swivel couplings with control cables.

	ID/In	OD/In.	Lg/In.
00-826-4782	1.50	2.215	700

### Fuel/Oil, Hydrocarbon Service



Synthetic Rubber Conveying Tube Material. 1st layer: braided fabric. 2nd layer: braided wire.



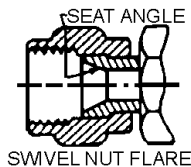
# CLASS 4720

Outer layer: molded Synthetic Rubber. Threaded external tube type. Straight, inverted flare. 0.625 inches UNF. Steel fittings. Temperature rating, minus 40 to plus 275 degrees Fahrenheit. Operating pressure, 2250 PSI.

	ID/In	OD/In.	Lg/In.
01-126-9171	.313	.672	15.250

1st, 2nd, 3rd, & 4th layers spirally laid Steel wire. Outer layer: molded Synthetic Rubber. 2nd layer: braided CRES wire. 3rd layer: molded Synthetic Rubber. Outer layer: spirally wrapped Cotton fabric. Hydraulic fluid and oil resistant. Inside diameter 0.375 inches, outside diameter 0.844 inches, 3/8-24 UNF minimum. Inside bending radius 5 inches. Temperature rating, minus 65 to plus 200 degrees Fahrenheit. Maximum operating pressure, 4000 PSI. Both ends identical: Steel with 30 degree inverted flare and 3/8-24 UNF right hand external thread. Special Feature: 12 inch spring guard each end.

	ID/In	OD/In.	Lg/In.
00-618-8290	.375	.844	120



1st and 2nd layers: Braided Steel wire. Outer layer: Chloroprene molded Rubber. 12000 pounds PSI burst test pressure. Temperature rating, minus 65 to 180 degrees Fahrenheit.

	ID/In	OD/In.	Lg/In.
00-826-3453	.6888	1.219	50

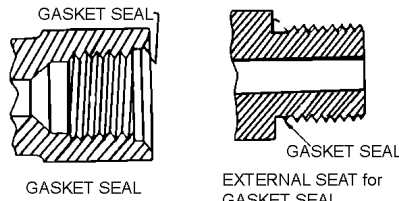
1st layer: Braided textile yarn. 2nd layer: Braided Steel wire. Outer layer: Rubber impregnated braided fabric. Threaded internal, swivel nut flared. Steel fittings. 7/16 UNF-3B. 3000 PSI operating pressure.

	ID/In	OD/In.	Lg/In.
01-079-7461	.188	.520	25.750
01-080-0105	.190	.520	20.500

Chloroprene Rubber. 1st layer: spirally interlocked Rayon. 4 layers of spirally wrapped CRES fabric. Oil resistant and waterproof. Both ends same. Threaded internal tube type. Straight swivel nut flared. Steel fittings. 1.062 UN inches. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Operating pressure 5000 PSI.

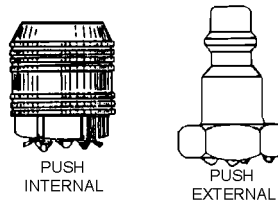
	ID/In	OD/In.	Lg/In.
01-143-1406	.750	1.438	13.625
01-048-1232	.750	1.438	183

Outer layer: Synthetic molded Rubber. First end: Threaded internal boss type, gasket seal, brass fitting. Swivel nut flare, 0.562 UNF inch. Second end: Threaded external boss. External seat for gasket seal, 0.375 UNF inch. Chrome, Nickel Plated, Brass fittings.



	ID/In	OD/In.	Lg/In.
00-388-9878	.250	0.485	26

First layer: braided Steel wire. Outer layer: molded Rubber. Abrasion, oil, and weather resistant. Inside diameter 0.250 inches, outside diameter 0.652 inches. Minimum inside bending radius 4 inch. Maximum operating pressure, 2750 PSI. First end: push type, internal, QUICK DISCONNECT connector. Second end: push type, external, QUICK DISCONNECT connector. 1/4 inch connectors. Both connectors, Cadmium Plated Steel. 120 inch length. Special Feature: Furnished with plug.

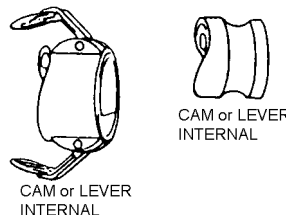


00-241-5856

First layer: braided Rayon cord. Outer layer: molded Synthetic Rubber. Weather resistant. Inside diameter 0.375 inches, outside diameter 0.625 inches. Maximum operating pressure 400 PSI. Both ends Cadmium Plated Brass. Externally threaded.

	1st end	2nd end	Lg
00-143-3830	1/4-18 NPTF	3/8-24 UNF	7.375 in. lg

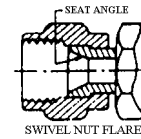
Wire reinforced, outer layer of molded Synthetic Rubber. Both ends Bronze. First end: internal quick disconnect and 1-1/2-11-1/2 NPSH internal hose thread. 2nd end: external quick disconnect, 1-1/2 - 11-1/2 NPSH external hose thread and gasket seal. Temperature rating, minus 32 to plus 52 degrees Celsius. Maximum operating pressure, 125 PSI. Non-collapsible, used for high aromatic gasoline, JP-4 fuel, and diesel fuel.



	ID/In	OD/In.	Lg/In.
00-229-0662	1.500	2.125	300

1st layer: braided fabric. Outer layer: molded

Polyurethane. Inside diameter 0.188 inches, outside diameter 0.438 inches minimum. Inside bending radius 0.750 inches. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Maximum operating pressure, 3000 PSI. Both ends Steel. 1st end: 30 degree seat angle and 1/4-18 NPT RH external thread. 2nd end: 45 degree seat angle and 7/16-20 UNF internal thread, swivel flare nut both ends. Reusable end fittings.

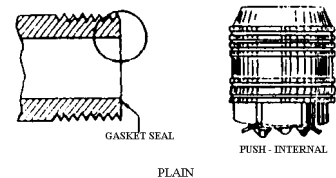


	ID/In	OD/In.	Lg/In.
00-460-2448	.188	.438	18.500

## Grease Gun Service, High Pressure

Synthetic Rubber Conveying Tube Material

1st and 2nd layers CRES wire. Outer layer molded Chloroprene Rubber. Operable to minus 40 degrees Fahrenheit. Operating pressure 6000 PSI. Both ends Steel. 1st end: 1/8-27 NPT external threads. 2nd end: Internal Quick Disconnect, with .260 inch opening. For use with high pressure, hand operated, or power operated lube guns, buckets, or other dispensing equipment.



	ID/In	OD/In.	Lg/In.
00-141-8311	.188	.593	19.500

## Hydraulic Fluid

1st and 2nd layers of Rubber impregnated woven fabric. Outer layer is moulded Rubber, Synthetic. Threaded internal tube connection. Straight inverted flare style, Steel fitting. 3/8 UNF 2B RH threads. 3000 pounds burst test pressure.

	ID/In	OD/In.	Lg/In.
01-052-9700	.175	.438	11.938

1st layer: braided Cotton cord. 2nd layer: braided Steel wire. Outer layer: Rubber impregnated braided Cotton cord. Fuel, Oil, and Hydraulic fluid resistant. Threaded internal tube, straight swivel nut flare. Steel fitting 9/16 UNF 3B right hand threads. 2nd end identical. Minus 65 to plus 275 degrees Fahrenheit temperature rating. 2000 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-702-5214	.312	.671	120

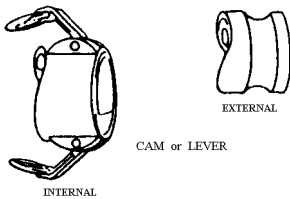
1st layer: Rubber impregnated, braided Steel wire. 2nd layer: moulded Synthetic Rubber. 1st end connection: threaded external tube, straight, swivel nut inverted flare. Socket Steel Cadmium

# CLASS 4720

treated fitting. 2nd end connection: threaded external tube, 90 degree elbow swivel nut inverted flare. Cadmium coated Steel fitting. 3/8 UNF 2A right hand threads both ends. Minus 40 to plus 200 degrees Fahrenheit temperature rating. 3000 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-237-3593	.188	.500	21

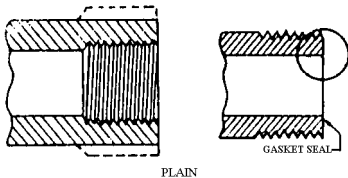
Gasoline suction and discharge. Synthetic Rubber, smooth bore. Reinforced with plies of braided or spiraled Cotton, or fiber cord with helices of Steel wire. Has a fuel, oil, and ozone resistant Rubber cover. Used for suction and discharge of liquid fuels such as high aromatic gasoline, JP4, 5, and diesel fuels. Brass fittings. Cam or lever end style. 1st end: internal quick disconnect. 2nd end: external quick disconnect. 1-1/2 inch sizes.



	ID/In	OD/In.	Lg/In.
00-289-1409	1-1.500	2.125	600

## Steam Service

Synthetic Rubber. Smooth bore, reinforced with plies of braided Steel wire embedded in Rubber, and a heat-resistant Rubber cover. Operating pressure 200 PSI. Used for temporary steam connection from dock to ship. Steel, Cadmium Plated. 1st end: plain threaded internal pipe. 2nd end: plain threaded external pipe.



1-1/2 in. NPT

	ID/In	OD/In.	Lg/In.
00-289-7990	1.500	2.250	300

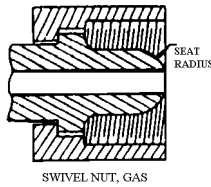
2 in. NPT

	ID/In	OD/In.	Lg/In.
00-289-7991	2.000	2.750	300

## Welding and Cutting

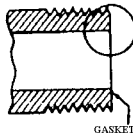
Synthetic Rubber. Smooth bore, reinforced with plies of wrapped or braided Cotton, or Synthetic fiber fabric. Rubber cover coded to denote service, green for Oxygen, red for Acetylene-Hydrogen. Left hand thread on Red item. Brass threaded female swivel nut (gas) tube couplings on ends. Both ends identical. 9/16-18 UNF-3B thread. 600 inch length excluding fittings. Inside diameter and outside

diameter shown in inches.

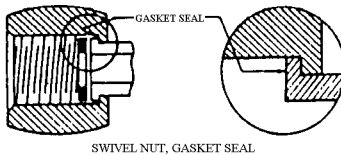


SWIVEL NUT, GAS

	ID/In.	OD/In.	Color
00-289-4254	.250	.594	Green
00-289-4258	.250	.594	Red
00-293-7997	.312	.343	Green
00-273-9886	.312	.656	Red



GASKET SEAL



SWIVEL NUT, GASKET SEAL

Synthetic Rubber. Smooth bore, reinforced with plies of Cotton or suitable Synthetic yarn or fabric. Rubber water resistant cover. Brass fittings. 3/4 11-1/2 NH inside diameter.

## Commercial hose

	ID/In	OD/In.	Lg/In.
00-585-2289	.750	A/A	600

## Water resistant

	ID/In	OD/In.	Lg/In.
00-221-8763	2.500	A/A	120

## Weather and ozone resistant

	ID/In	OD/In.	Lg/In.
00-230-6577	.750	A/A	300

## Fuel oil, Hydrocarbon

Copper Alloy. Threaded female swivel nut, gasket seal, hose coupling one end. Threaded male plain gasket seal, hose 3/4-11-1/2 NH coupling other end. 600 inch length.

	ID/In	OD/In.	Lg/In.
00-203-3920	.625	A/A	600
00-203-3912	.750	A/A	600

## General Purpose

1st and 2nd layers: Braided Steel wire. Outer layer: Molded Polyurethane. 12000 pounds PSI burst test pressure. Temperature rating, minus 65 to 200 degrees Fahrenheit. Nut drilled for lockwire.

	ID/In	OD/In.	Lg/In.
01-375-7243	.250	.480	24

Outer layer: Braided fiber or spiral interlocked.

CRES. Outer layer: molded Rubber. Oil and fuel resistant. Maximum Operating pressure, 800 pounds PSI.

	ID/In	OD/In.	Lg/In.
00-066-4759	.250	A/A	600

## Fuel oil, Hydrocarbon

Plastic, Polyvinyl Acetate inner conveying tube material. 1st layer: braided Polyester cord, Yellow outer layer, molded Plastic. Inside diameter .250 inches, outside diameter .375 inches. Maximum operating pressure, 500 PSI. 1st end: Brass, straight swivel nut, with gasket seal with 7/16-20 UNF right hand internal thread. 2nd end: Brass, with 45 degree elbow and swivel nut with gasket seal, with 7/16-20 UNF right hand internal thread. Special Feature: end connections have an internal self sealing feature.

	ID/In	OD/In.	Lg/In.
00-603-9257	.250	.375	36

1st layer: braided Rayon cord. Outer layer: moulded Synthetic Rubber. Inside surface smooth, designed for Fuel/Oil, Hydrocarbon and has a round cross-sectional shape. 1st end: connection plain, straight 1/4 inch threaded external pipe threads. 2nd end: connection plain, straight 3/8 in. threaded external pipe threads. Brass fittings Cadmium treated. 400 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-251-6977	.375	.675	10 in.

1st and 2nd layer: braided Steel wire. Outer layer: moulded Synthetic Rubber. Inside surface smooth, designed for Fuel/Oil, Hydrocarbon and has a round cross-sectional shape. 1st end connection: plain, straight, 3/8 inch NPT external threads. 2nd end identical. Steel fittings Cadmium treated both ends have a spring guard. 4000 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-250-6455	.375	.844	36 in.

Rubber inner conveying tube material, designed for Fuel/Oil, Hydrocarbon. Round cross-sectional shape with a convoluted inside surface. 1st end connection is straight 1-1/16 inch UNJ threaded internal tube. Fitting is CRES, swivel nut flare style. 2nd end is identical. Temperature rating minus 45 to plus 450 degrees Fahrenheit.

	ID/In	OD/In.	Lg/In.
01-029-5401	.652	1.062	12

1st layer: braided Cotton cord. 2nd layer: braided Corrosion Resistant Steel wire. Outer layer: Rubber, impregnated braided Cotton cord. 1st end is round, straight, threaded internal tube with a swivel nut flare end. 1-5/8 inch UN 12-3B thread size. Aluminum Alloy fittings. 2nd end identical. 600 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-824-8096	1.125	1.500	180

1st and 2nd layer: braided wire with an outer

layer of moulded Chloroprene Rubber. Round cross-sectional shape with universal quick disconnect first end. Aluminum Alloy fitting 4-1/8 inches long. 2nd end identical. 100 pounds maximum operating pressure.

	ID/In.	OD/In.	Lg/In.
01-331-2880	2.000	2.750	1200

Zinc Alloy. Threaded female swivel nut, gasket seal, hose coupling one end. Threaded male plain, gasket seal, hose coupling other end. 3/4-11-1/2 NH.

	ID/In.	OD/In.	Lg/In.
00-729-5334	.625	A/A	600
00-729-5338	.750	A/A	600

Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with an outer layer of, braided Corrosion Resistant Steel wire. Threaded internal tube, straight, swivel nut flare, 1st end fitting. 7/16-24-2A UNS threads, Passivated Corrosion Resisting Steel fitting. 2nd end identical. 1500 pounds maximum operating pressure.

	ID/In.	OD/In.	Lg/In.
01-201-1228	.250	.343	12.750
01-200-4295*	.406	.585	24.000

\* 3/4-16-3B UNF threads 2nd end 90 degree elbow.

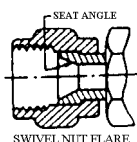
Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with an outer layer of braided Corrosion Resistant Steel wire. Threaded internal tube, straight, swivel nut flare, 1st end fitting. 1-1/16-12-3B UNJ threads, Corrosion Resisting Steel fitting. 2nd end has a 45 degree elbow. 1000 pound maximum operating pressure.

	ID/In.	OD/In.	Lg/In.
01-090-8358	.615	.812	38

Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with 5 layers of braided Corrosion Resisting Steel wire. Threaded internal tube, straight, swivel nut, flareless 1st end fitting. 1-5/16-12-3B UNJ. 2nd end has an elbow and both ends are Corrosion Resisting Steel. 3500 pound maximum operating pressure. Used on CH-46 helicopters.

	ID/In.	OD/In.	Lg/In.
01-226-8472	.875	1.266	21.250

Plastic Polytetrafluoroethylene. For Hydrocarbon fuels and oils. Plastic compound reinforced with Corrosion Resistant Steel wire and Steel fittings. Both ends swivel nut flare. Thread size same both ends. Temperature rating, minus 65 degrees to plus 450 degrees Fahrenheit. Maximum operating pressure 1500 PSI, unless noted.



1st end straight. Second end 90 degree elbow. 7/16-20-3B UNJF.

	ID/In.	OD/In.	Lg/In.
00-723-7397	.188	.342	14
00-883-9038	.234	.703	11
00-868-5779	.236	.609	12

Plastic, Tetrafluoroethylene

Outer layer braided CRES wire. Steel fittings CRES. Both ends: Threaded internal tube, Straight flared swivel nut, 7/16-20-2B UNF.

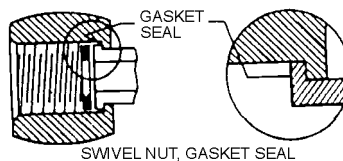
	ID/In.	OD/In.	Lg/In.
00-803-3301	.250	.368	12

Outer layer: braided Passivated Corrosion Resistant Steel wire. Inner tube material: smooth, Plastic Tetrafluoroethylene. Threaded internal tube, straight, swivel nut flare, Passivated Steel fittings. 7/8-14-3B UNJF threads. 1500 pound maximum operating pressure.

	ID/In.	OD/In.	Lg/In.
01-022-4452	.500	.656	25.250
00-234-2526*	.852	1.390	44

\* 1-5/16-12-3B UNJ threads of the fittings with a 3000 pound maximum operating pressure.

Plastic. 1st and outer layers: Rubber impregnated polyamide fabric. Straight swivel nut ends, Threaded internal hose. Both fittings Brass. 600 PSI operating pressure. 50 foot lengths.



	ID/In.	OD/In.	Lg/In.
01-248-8822	1.396	1.500	1-1/2 NPSH
01-254-4912	1.396	2.500	2-1/2 NPSH

### Paint, dope, oil, solvents

1st layer: Any acceptable molder Rubber. Hydrostatic test pressure 400 pounds PSI. One nipple, 3/8-18 NPSC size to be connected to an end connection.

	ID/In.	OD/In.	Lg/In.
00-289-3429	.380	A/A	300

### Water and oil

1st to 5th layer: Corrosion Resistant Steel fabric. Internal quick disconnect. Temperature rating, minus 40 to 200 degrees Fahrenheit. Maximum operating pressure, 14000 pounds PSI. Permanent Steel, outer abrasion coating.

	ID/In.	OD/In.	Lg/In.
01-038-7429	.500	1.220	600

### Ethylene Glycol

Polytetrafluoroethylene Plastic. 1st layer: Braided Polyamide cord. Outer layer: Molded

Rubber. Temperature rating, minus 40 to 160 pounds PSI.

	ID/In.	OD/In.	Lg/In.
01-200-2816	.750	1.140	34
01-200-2819	.750	1.140	40
01-200-2820	.750	1.140	57
01-200-2809	.750	1.140	72

### HOSE, NONMETALLIC

Alcohol, Methyl, and Ethylene Glycol and fuel/oil, hydrocarbon, and fresh water.

Automotive and other liquid-cooled engines. Rubber or Synthetic Rubber smooth bore tube. Reinforced with wrapped fabric or braided yarn, and a Rubber cover. Resistant to oil, cold alkalines, and rust. Issued by foot unless otherwise indicated.

Heavy duty, light wall. Low temperature service to minus 65 degrees Fahrenheit.

	ID/In.	OD/In.	Lg/In.
00-235-4120	1.125	A/A	36
00-985-1293	1.500	1.886	—
00-018-2162	1.875	—	—
00-401-9299*	1.000	1.438	—
00-730-7310*	2.000	A/A	2.5

\* Minus 40 to 212 degrees Fahrenheit.

Fuel, oil, coolant, water, and Alcohol service. Smooth bore Synthetic Rubber hose reinforced. With one or more plies of impregnated fabric with suitable frictioning, and a Rubber cover. Issued by the foot.

Low temperature engine installation service, to minus 40 degrees Fahrenheit.

	ID/In.	OD/In.	Lg/In.
00-684-0260	.250	.562	500
00-278-1103	.500	.843	500
00-278-1113	1.000	1.343	500
00-278-1112	1.250	1.750	400
00-278-1109	2.000	2.437	300

### Air and oxygen, gaseous

	ID/In.	OD/In.	Lg/In.
00-200-0565	.375	.719	600
00-278-4900	.250	.594	—
00-230-6574	.250	.594	—

**Pneumatic** tool and light duty air application Synthetic hose. Reinforced with braided or wrapped Cotton, or Rubber impregnated fiber, and a Rubber cover. Issued by the foot, unless otherwise indicated.

### Air

	ID/In.	OD/In.	Lg/In.
00-230-6545	.250	—	.750
<b>00-230-6546</b>	<b>.375</b>	—	.750
00-230-6520	.437	120	1.125
00-278-4889	.500	1.188	A/A
00-278-4890	.625	—	.937
00-278-4891	.750	A/A	A/A

Smooth bore Synthetic Rubber hose. Reinforced with Cotton or Synthetic yarn or fabric, and a Rubber cover. Issued by the foot, unless

# CLASS 4720

otherwise indicated. 150 PSI.

	ID/In.	OD/In.	Lg/In.	ID/In.	OD/In.	PSI
<b>Water discharge service</b>	00-817-7781	7.000	7.910	420	00-857-1733	1.125 1.359 1000

	ID/In.
00-230-6478	.375
00-230-6481	.750
00-230-6482	1.000
00-554-8029	1.500
01-322-2123	1.500
01-322-2124	1.500

1st layer and outer layer braided Polyester Cord. 2nd layer braided Steel wire. Plastic, Fluro-elastomer inner tube material. Inside surface smooth, cross-sectional shape round. Maximum operating pressure 300 pounds. Blue exterior color.

Rubber, Ethylene Propylene. 1st layer: Braided textile yarn. Outer layer: molded Rubber. Heat, oil, ozone, and mildew resistant. M40 to 212 degrees Fahrenheit.

## Fuel/oil, hydrocarbon.

Hydraulic fluid Phosphate-Ester base hose. Reinforced with braided Steel wire, and a molded Rubber cover.

	ID/In.	OD/In.	Lg/In.
01-283-3040	1.812	2.220	A/A

	ID/In.	OD/In.	Lg/In.
00-415-1362	1.000	1.219	A/A
00-277-9028	1.750	2.188	36
00-882-1738	2.000	2.172	A/A
00-809-8802	2.250	2.531	—
00-235-4138	2.500	3.062	—

High-pressure hydraulic systems, 3000 PSI.

	ID/In.	OD/In.
00-683-8830	.219	.625
00-554-8084	.274	.703
00-554-8085	.352	.765
00-554-8086	.450	.859
00-554-8087	.571	1.031
00-554-8088	.688	1.212
00-554-8089	.880	1.508

General purpose Rubber or Synthetic Rubber smooth bore hose. Reinforced with plies of spiral wrapped or braided cord, and/or braided wire. Has an oil and abrasion resistant cover. Issued by the foot unless otherwise indicated. Low temperature service to minus 40 degrees Fahrenheit.

Rubber, Polyethylene. 1st and 2nd layers: braided Steel wire. Outer layer: molded Rubber. Ethylene Propylene. Round cross-sectional shape. M40 to P300 degrees Fahrenheit temperature rating. 5000 PSI maximum operating pressure.

	ID/In.	OD/In.	PSI
00-289-5222	.250	.688	5000
00-051-5542	.380	.840	4000
00-771-9428	.380	.840	5000
00-456-2076	.500	.970	3500
00-797-2488	.500	.970	4250
00-752-9952	.508	.970	3500
00-541-7189*	.750	1.230	3000
00-288-9873†	.750	1.250	2250
00-585-7293	1.000	1.560	3000
01-228-4286	1.125	1.500	625
00-288-9875	1.250	2.000	1625
00-954-2641	1.375	1.750	500
00-289-5221	1.500	2.250	1250
00-288-9865	2.000	2.750	1125
00-929-1092†	2.000	2.750	1125

	ID/In.	OD/In.	Lg/In.
00-722-4722	.250	.690	A/A
00-722-4723	.375	.844	A/A

Aircraft hydraulic or pneumatic fuel and oil systems, smooth bore hose. Reinforced with one Cotton and one CRES wire braid. Braided Cotton, Rubber-impregnated, oil-resistant cover, with mildew inhibitor. Issued by the foot

Low temperature service, to minus 65 degrees Fahrenheit Inside diameter, outside diameter, and WP listed.

	ID/In.	OD/In.	PSI
00-289-9202	.125	.453	3000
00-639-9907	.188	.516	3000
00-289-9197	.250	.578	3000
00-278-1323	.313	.672	2000
00-999-8994	.406	.766	2000
00-540-1368	.500	.922	1750
00-595-1089	.625	1.080	1500
00-595-1088	.875	1.234	800
00-541-1313	1.125	1.500	600
00-289-9199	1.375	1.750	500
00-289-9201	1.812	2.220	350
00-289-9200	3.000	3.562	200

\* Salt Water use  
† Air and Fuel/Oil Hydrocarbon use

Hydrocarbon Fuel/Oil service. Synthetic Rubber inner conveying material. 1st layer: braided CRES wire. Outer layer: braided CRES wire. Minus 40 to P300 degrees Fahrenheit temperature range.

	ID/In.	OD/In.	PSI
00-541-9281	.219	.438	1000
00-420-4636	.281	.484	1000
00-611-2548	.344	.549	1000
00-580-6618	.438	.641	1000
00-555-3499	.688	.938	1000
00-540-6434	.875	1.156	750
00-580-6944	1.125	1.437	500
00-053-4577	2.375	2.875	360

Aircraft air and vacuum instrument systems. Smooth bore Synthetic Rubber hose, reinforced with braided Cotton, or other suitable material. Longitudinal corrugated abrasion resistant Rubber cover. Issue by the foot, unless otherwise indicated.

Flexible low pressure hose. Low temperature service to minus 65 degrees Fahrenheit.

	ID/In.	OD/In.	PSI
00-540-1962	.250	.469	200
00-720-1096	.375	.578	A/A

Hose for (ship), alongside refueling-at-sea. Smooth bore Synthetic Rubber hose. Reinforced with plies of Nylon fabric cord held together with Rubber friction, and a Rubber cover.

Lightweight buoyant type, 150 PSI WP.

Plastic (Tetrafluoroethylene) smooth bore hose. Reinforced with CRES Steel wire, and a Plastic cover. High-temperature, medium pressure hose for use in fuel, lubricating oil, water-alcohol, chemical fluid, and hydraulic and pneumatic systems. Low temperature service to M65 degrees Fahrenheit. Issued by the foot, unless otherwise indicated.

	ID/In.	OD/In.	PSI
00-857-1732	.188	.312	1500
00-857-1736	.250	.375	1500
00-857-1731	.313	.469	1500
00-815-6354	.406	.562	1500
00-857-1730	.500	.656	1500
00-857-1734	.625	.789	1000
00-857-1729	.875	1.109	1250

Plastic (Polytetrafluoroethylene) smooth bore hose, reinforced with braided CRES wire.

Electrostatic discharge capability.

Temperature rating M65 to P400 degrees Fahrenheit. Operating pressure 3000 PSI. Non Spec items.

	ID/In.	OD/In.
01-028-1350	.231	.390
01-035-6601	.391	.650
01-026-9156	.298	.490
01-026-9158	.485	.720
01-026-6161	.602	1.140
00-916-2940	.625	.750
01-115-7371	.641	.820
00-400-6559	1.125	1.315
00-436-2855	1.375	1.625

Temperature rating M100 to P450 degrees Fahrenheit.

	ID/In.	OD/In.	PSI
00-254-5957	.188	.312	1500
00-089-9177	.406	.531	2000
00-898-5108	.511	.633	1500
00-420-4495	.875	1.040	800
01-115-7372	.875	1.125	1500
01-115-5157	1.125	1.350	1125

Synthetic Rubber, smooth bore hose reinforced with braided Steel wire, and Rubber covered. Low temperature rating to M65 degrees Fahrenheit. Fuel Oil, Hydrocarbon use.

	ID/In.	OD/In.	PSI
00-930-4513	.250	.690	5000
00-930-4515*	.500	.978	3500

Synthetic Rubber, smooth bore hose reinforced with braided fiber or Polyester cord. Covered with molded Rubber or braided Polyester cord. Temperature rating M40 to P200 degrees Fahrenheit. Fuel Oil, Hydrocarbon use.

	ID/In.	OD/In.	PSI
01-121-0873	.188	.516	1000
01-021-1586	.375	1.000	2000
00-080-4203	.500	1.125	2000
00-504-7492	.625	1.078	550
00-168-3444	.750	1.500	1500
01-021-5663	1.000	1.780	1400
00-167-4726	1.250	2.020	1000
01-019-8976	1.500	2.250	1000
00-167-4725	2.000	2.770	1150
00-107-7706	2.500	3.300	1000
00-933-1462	2.992	3.795	1000
00-933-1463	4.000	4.862	600
00-166-5892*	6.000	6.875	300
01-092-1692	10.000	10.940	200

\* Fuel Oil, Hydrocarbon, and Water.

Synthetic Rubber, smooth bore hose with round cross-sectional shape. 1st and 3rd layers are braided textile yarn. 2nd layer is helix wire coil, and outer layer in molded Synthetic Rubber. Temperature rating M40 to P200. Hydraulic fluid use.

	ID/In.	OD/In.	PSI
00-682-7920	.750	1.300	300

Hydraulic Service M67 to P400 degrees Fahrenheit. Outer cover braided CRES wire.

	ID/In.	OD/In.	PSI
00-803-7157	.217	.507	3000
00-975-2885	.312	.567	3000
00-421-1321	.425	.742	3000
00-507-4159	.552	.882	3000

2 layers of braided CRES wire. Outer layer of Chloroprene Rubber.

	ID/In.	OD/In.	PSI
01-018-6550	.500	.968	3500

2 layers of braided wire. Outer layer of Chloroprene Rubber.

	ID/In.	OD/In.	PSI
00-289-2615	.375	.840	4000

### NON SPEC ITEMS

For Hydrocarbon fuel/oil service. Use for additional service will be noted. General purpose Rubber or Synthetic Rubber. Smooth bore hose reinforced with plies of spiral wrapped or braided cord, and/or braided wire. With an oil and abrasion resistant cover. Issued by the foot unless noted.

	ID/In.	OD/In.	PSI
00-401-8231	.188	.531	1600
01-067-6472	.190	.520	3000
00-836-7189*	.188	.516	3000
00-288-9840	.310	.680	2250
00-406-3309	.320	.430	2500
00-274-1154*	.375	.625	250
00-676-7936	.375	.625	1125
00-067-0454	.406	.766	2000
00-203-3029	.500	.920	1750
00-803-9672	.500	.922	1750
00-288-9870*	.620	1.080	1500
00-888-6075	.625	1.078	1500
00-450-9156*	.875	1.234	800
01-061-3177	.875	1.280	500

	ID/In.	OD/In.	PSI
00-803-9701	.880	1.270	800
00-289-2618	1.000	1.560	2000
00-177-1721	1.810	2.220	350
00-838-2184	2.375	2.870	350
00-540-5174	2.500	3.090	1200
00-624-4060*	3.000	3.594	200

\* Hydraulic fluid, oil, air, fresh and salt water service.

Non-Spec items for hydrocarbon fuel/oil, fresh water, and air service. General purpose Rubber or Synthetic Rubber smooth bore hose. Reinforced with plies of spiral wrapped or braided cord, and/or braided wire. With an oil and abrasion resistant cover. Issued by the foot unless noted otherwise.

	ID/In.	OD/In.	PSI
00-847-1710	.250	.500	250
00-278-1092	.312	.516	250
00-089-2022	.312	.680	2250
00-933-5878	.500	.750	250
00-051-4670	.500	.922	1750
00-062-9481*	.625	1.090	2750
00-541-8859	.750	1.031	350
01-254-0191†	2.500	3.125	200
00-564-3217	4.000	4.703	600

\* Salt water.  
† 50 foot length.

### Hydraulic and oil, fresh and salt water service.

	ID/In.	OD/In.	PSI
01-074-8873	.310	.670	500
00-187-4102	.310	.680	650
00-989-6479	.500	.870	3500
00-166-9835	.750	1.210	250
00-187-4283	1.120	1.500	450
00-423-1001	1.380	1.750	400
00-554-8052	5.000	5.938	500
00-585-6208	6.000	6.910	350
00-166-5888	8.000	8.940	300

### Fuel Oil, Hydrocarbon.

	ID/In.	OD/In.	PSI
01-228-1054	.057	.250	—
00-187-4279	.410	0.770	625
00-574-6558	.500	0.922	600
00-194-8911*	.880	1.230	500
01-190-0393	1.500	2.125	—
01-392-8703	1.810	2.220	200
01-074-0337	1.875	2.300	50
00-404-7277	2.750	3.142	3000
00-540-1701	3.000	3.090	900
01-061-2568	4.500	5.000	—
01-007-1940	5.000	5.875	300

\* Water service.

### Air and Fuel Oil, Hydrocarbon.

	ID/In.	OD/In.	PSI
00-730-7361	.250	0.688	5000
00-054-3830	.375	0.844	4000
00-890-5014	.500	0.969	3500
00-289-3306	1.125	1.500	625

### Air and Fuel Oil, Hydrocarbon and Hydraulic fluid, butane, fresh and salt water service.

	ID/In.	OD/In.	PSI
00-288-9878	.188	.516	3000
01-003-1064	.375	.777	4000
00-967-8997	.406	.766	2000
00-717-1701	.410	.770	2000
00-624-4057	.875	1.234	800
00-288-9867	1.125	1.500	625
00-624-4058	1.380	1.750	500
00-624-4059	1.812	2.219	350

### Air and Fuel Oil, Hydrocarbon, fresh and salt water service.

	ID/In.	OD/In.	PSI	Color
00-051-4712	.250	.578	3000	Blue
00-717-1621	.312	.685	2250	Blue
01-048-0636	.500	.750	300	Black

### Air and methyl alcohol, ethylene glycol, fresh water.

	ID/In.	OD/In.	PSI
00-845-3032	.500	.750	250

### HOSE, PREFORMED

For use on heaters of autos and liquid cooled engines. Inside diameter, wall thickness shown below. Issued by the foot unless otherwise indicated.

Synthetic Rubber, Heavy and moderate duty, light wall, 3/16 inch thick. Oil resistant, and fungus resistant, medium volume swell, and ozone resistant.

M40 and 212 degrees Fahrenheit.

	ID/In.	Lg/In.
00-708-3507	1.250	76
00-288-9754	1.875	36
00-813-9050	3.500	A/A

M65 and 212 degrees Fahrenheit.

	ID/In.	Lg/In.
00-087-9122	2.500	36

### Non-Spec items

Synthetic Rubber, Fabric reinforced.

Straight Style

	ID/In.	Thk/In.	Lg/In.
00-789-4863*	.812	.195	.760
01-118-1751	3.500	.045	2.625
00-893-5429	3.500	.062	2.750
00-398-4930	2.250	.188	24.00

\* Fabric/yarn reinforced.

Straight, Corrugated Style

	ID/In.	Thk/In.	Lg/In.
00-140-3731*	1.750	.150	23.250

\* Wire reinforced.

1st arm 2.000 inch length, 2nd arm 2.500 inch length. Bend radius 3.500 inches.

	ID/In.	Wall Thk/In.	Lg/In.
00-440-2072	1.950	.188	6.500

# CLASS 4720

Natural Silicone Rubber

	ID/in.	Wall Thk/in.	Lg/in.
01-355-9202	3.375	.110	3.750

## SLEEVE, REINFORCING, HOSE

Nickel Aluminum Bronze ring, with Buna-Rubber banding.

	ID/in.	OD/in.	O/A Lg/in.	Coil W/in.
01-223-3692	3.500	3.910	4.000	780
00-929-1105	5.400	5.930	6.120	910

## SPRING, REINFORCING, HOSE

Cylindrical, CRES, Open design. RH helix. Size .030 inch, rectangular open coil. 1.130 inch inside diameter by 1.160 inch spring free outside diameter. Any acceptable length.

00-104-6259

## TUBING ASSEMBLY, NONMETALLIC

### Hydrocarbon Fuel/Oil Service

Plastic flexible material. 1st end: Straight threaded internal tube, 7/16 UNF-3B CRES fittings. Flared swivel nut. 2nd end: Straight unthreaded external tube.

	ID/in.	OD/in.	Lg/in.
00-689-6844	.438	.250	34

Polyamide Nylon. Natural color, straight plain threaded external tube. Steel fittings. 1/8 inch NPT right hand both ends.

	ID/in.	OD/in.	Lg/in.
00-133-9264	.125	.250	28.500

## TUBING, NONMETALLIC

Fuel/Oil, Hydrocarbon Service. Rubber Synthetic, 60 shore durometer rated. Petroleum oil, weather, and ozone resistant. High ozone concentration. Issued by the foot.

	ID/in.	OD/in.
00-273-1051	1.250	1.500

General Use Service. Rubber, Buna-5, 40 shore durometer rated. Non-oil resistant.

	ID/in.	OD/in.
00-235-5458	.250	.436

Plastic, Vinyl Chloride Cold and fire resistant.

	ID/in.	OD/in.	Lg/in.
00-709-0441	.500	.750	A/A

### Non-Spec Items

Plastic

Smooth inside surface, clear color, flexible. For liquid ingestion.

	ID/in.	OD/in.	Lg/in.
01-119-8104	.375	.625	A/A

Smooth inside surface, clear color, flexible for hydraulic fluid media.

	ID/in.	OD/in.	Lg/in.
00-716-7717	.306	.736	3.188

Smooth inside surface, clear, flexible Plastic tubing.

Temperature rating 73 and 180 degrees Fahrenheit operating pressure. In accordance with SPCC HX quality control item.

180 PSI

	ID/in.	OD/in.
00-610-3385	.500	.688
01-067-1569*	.500	.750

\* Temperature rating and operating pressure not listed.

Gas ingested liquid, smooth inside surface, clear color, flexible. Temperature rating minus 20 to 200 degrees Fahrenheit. Wall thickness .125 inches.

	ID/in.	OD/in.
00-197-4862	.500	.750

Cream color, flexible Polyamide Plastic tubing. Temperature rating minus 65 to 150 degrees Fahrenheit. In accordance with SPCC HX quality control item.

	ID/in.	OD/in.
00-223-0070	.190	.250

Plastic, Polycarbonate

Smooth inside surface, rigid, clear color.

	ID/in.	OD/in.	Lg/in.
00-363-4199	.500	.625	10.000
00-627-9848*	.500	.750	46.125

\* Any Acceptable color, flexible.

Smooth inside surface, flexible. Temperature rating minus 60 to 160 degrees Fahrenheit. Maximum operating pressure 200 PSI.

	ID/in.	OD/in.	Lg/in.
00-269-2189	.125	.250	—

Plastic, Polyethylene.

Smooth inside surface, flexible Purple color. Cold and light resistant. Maximum operating pressure 125 PSI.

	ID/in.	OD/in.	Lg/in.
00-846-0956	.170	.250	—
00-926-4277	.250	.375	—

Plastic Polyvinyl Chloride.

Smooth inside surface, clear color, flexible.

	ID/in.	OD/in.	Lg/in.
00-181-9140*	.188	.312	120
01-221-8871	.250	.375	—
00-641-4406	.250	.500	1200
00-346-2221†	.312	.438	75
01-055-7882	.508	.762	100 ft
00-052-8228*	1.000	1.375	A/A
00-540-6183*	1.500	1.875	A/A

\* Mercury free, thermoplastic.

† SPCC HX Quality Control Item.

Smooth inside surface, clear color, abrasion and fire resistant. Flexible, temperature rating minus 5 to 175 degrees Fahrenheit. Maximum operating pressure 225 PSI.

	ID/in.	OD/in.
01-022-4455	.375	.625
01-245-3663*	1.000	1.375

\* PSI not listed.

Plastic, Vinyl

Smooth inside surface, clear color, abrasion resistant and flexible. Temperature rating 0.0 to 215 degrees Fahrenheit. Maximum operating pressure 45 PSI.

	ID/in.	OD/in.
00-061-2082	.500	.750

Smooth inside surface, clear, flexible. Temperature rating 0 to 180 degrees Fahrenheit. 60 PSI operating pressure.

	ID/in.	OD/in.	Lg/in.
00-351-7316	.375	.625	A/A
00-403-0901	.750	1.063	A/A

# CLASS 4730

## HOSE, PIPE, TUBE, LUBRICATION AND RAILING FITTINGS

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### ADAPTER, BUSHING

THREADED EXTERNAL TO THREADED INTERNAL ENDS.



Brass

	External NPT	Internal UNF	Lg./In.
00-608-1777	1/2-14	5/8-18	.780

Rubber, Hard

	UNC	NPT	Lg./In.
00-595-4607	3/4-10	1/8-27	1.000

Stainless Steel

	UNF	Acme G	Lg./In.
01-120-2876	1-3/8-12	3/4-10	1.344

### ADAPTER, STRAIGHT, FLANGE TO BOSS

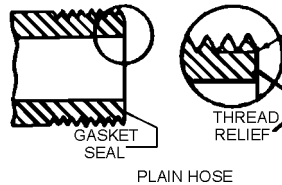
Copper Alloy material. Plain round flange with holes on one end and a threaded external boss. With seat for gasket seal on the other end. 1-7/8 inch thread size, UNF designation, and a 2A thread class. Flange end has 6 holes, .562 inch diameter on a 3.938 inch bolt circle.

	Lg./In.
01-031-2839	6.219

### ADAPTER, STRAIGHT, FLANGE TO HOSE

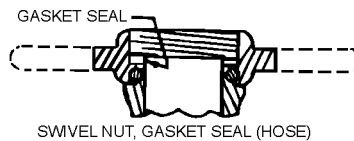
PLAIN FACE FLANGE. Round.

Bronze. Maximum operating pressure for steam 100 PSI at 425 degrees Fahrenheit. For water, oil, and gas, 150 PSI at 150 degrees Fahrenheit. The installation of these flanges is intended to be accomplished by Silver Brazing. Cannot exceed a temperature of 1400 degrees Fahrenheit. The fittings are intended for use with Copper tube, Copper-Nickel tube, Brass tube, and Nickel Copper Alloy tube. 1st end: flange fitting. 2nd end connection: NH thread 2-1/2-7-1/2 inches. Threaded external hose connection. These adapters are used to connect pipe or hose through bulkheads.



	Flange OD/In.	Lg/In	No. Bolt Holes
00-289-2046	6.625	1.375	8
00-289-2047	7.188	1.438	8
00-289-2048	7.688	1.438	8
00-289-2049	9.062	1.563	10
00-289-2050	10.125	1.688	12

Swivel nut gasket seal, threaded internal hose connection. NH thread 2-1/2 - 7-1/2 inches. Non Spec except where indicated.



	Flange OD/In.	Lg./In.	No. Bolt Holes
00-277-3379	6.625	3.375	8
00-277-3380	7.190	1.880	8
00-277-3381	7.687	1.437	8
00-277-3382	9.062	1.562	10
00-277-3383	10.125	1.687	12

PLAIN OVAL FLANGE to unthreaded external hose connection. Steel, 2 bolt holes, 1.680 inches, bolt circle diameter, 1.000 inches. Inside diameter hose accommodation, 1.062 inches long. Flange size 2.470 inches long by 1.410 inches wide.

00-901-0826

RAISED FACE FLANGE to barbed unthreaded external hose. Round without bolt holes. CRES, Passivated. Raised face diameter 3.620 inches, flange outside diameter 4.500 inches, flange thickness .110 inches. Inside diameter hose accommodation 2.905 inches. Overall length 7.000 inches.

00-960-4569

RAISED STRAIGHT FACE FLANGE to threaded external hose gripping nipple. Round with 4 holes. Copper Alloy material. Flange outside diameter is 3.812 inches with a 2.690 inch bolt circle diameter. 1.120 inch inside diameter hose accommodation with an overall

length of 2.890 inches. Furnished with 1 hose coupling nut.

00-212-4992

RECESSED FLANGE to multi-grooved unthreaded external hose. Round without bolt holes. Steel Composition, Passivated. Recess diameter 3.650 inches, recess depth .120 inches, flange outside diameter 4.500 inches. Flange thickness .110 inches. Inside diameter hose accommodation 3.500 inches. Length, 7.000 inches. Adapter features three, .250 inch diameter pins equally spaced circumferentially.

00-960-4568

### ADAPTER, STRAIGHT, SWIVEL FLANGE TO HOSE

SWIVEL RAISED FACE FLANGE. ROUND, TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

4 bolt holes, .620 inches in diameter. Copper Alloy material. Bolt hole circle diameter 2.750 inches, raised face. Height .015 inches, raised face diameter 1.840 inches. Flange outside diameter 3.880 inches, flange thickness .440 inches. Inside diameter hose accommodation, 1.125 inches. Outside diameter hose accommodation 1.500 inches. Length 2.890 inches. Furnished with 1 socket.

00-913-6500

Magnesium material. Bolt hole circle 3.500 inch, raised face. Height .015 inches, raised face diameter 2.740 inches. Flange outside diameter 4.620 inches. Flange thickness, .440 inches. Inside diameter hose accommodation 1.810 inches and outside diameter hose accommodation 2.220 inches. Furnished with one hose coupling nut.

00-602-3898

### ADAPTER, STRAIGHT, HOSE TO BOSS

THREADED EXTERNAL HOSE GRIPPING NIPPLE TO THREADED EXTERNAL BOSS, GASKET SEAL.

Nickel and Copper material. .625 inches. Inside diameter hose accommodation 1.078 inches. Outside diameter hose accommodation 1-3/4-12 UN-3A boss end. 3.120 inches overall length. Furnished with 1 socket.

# CLASS 4730

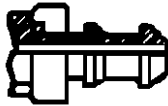
00-905-9524

THREADED INTERNAL BOSS, GASKET SEAL TO THREADED EXTERNAL HOSE.

Copper Alloy material. SPECIAL FEATURES: 1 molded Nylon spider contact; 2 Brass shaft contacts; 2 springs for shaft contacts; 1 Brass cotter pin, and 2 Brass washers. NPT thread both ends.

	Boss Thd	Hose Thd	Lg./In.
00-674-8311	1-1/2-2B	2-1/2-2A	3.000

UNTHREADED EXTERNAL HOSE, BEADED TO THREADED EXTERNAL BOSS, GASKET SEAL.



BARBED OR BEADED (HOSE)

Aluminum Alloy (Anodized inside)

.375 inch inside diameter hose accommodation, 9/16-18 UNF-3A boss, 1.802 inch overall length.

00-595-4359

Copper Alloy

.452 inch inside diameter hose accommodation, 9/16-18 UNF-2A boss. Overall length 1.781 inches.

01-162-6353

UNTHREADED EXTERNAL HOSE MULTIGROOVED, TO THREADED INTERNAL BOSS, GASKET SEAL.

Steel, Corrosion Resisting

.750 inch inside diameter hose accommodation 1-16 UN-2B boss, 2.687 inches overall length.

00-375-6803

## ADAPTER, STRAIGHT, PIPE TO BOSS

UNTHREADED INTERNAL PIPE, SOCKET END TO THREADED EXTERNAL BOSS, FLARED WITH GASKET SEAL. For use with liquefied gas.

Steel, Corrosion Resisting

	Pipe NPT	Boss UNF	Lg./In.
01-199-3121	1/4-18	7/16-20	1.390

## ADAPTER, STRAIGHT, PIPE TO GAS FITTING

THREADED EXTERNAL PIPE, PLAIN TO THREADED EXTERNAL GAS FITTING

SWIVEL NUT, FLARED. Copper Alloy material. NPT threads on one end and NGO threads on the other. Pipe size .500 inches. Gas fitting size .250 inches. Overall length, 4.312 inches.

00-476-0283

THREADED EXTERNAL PIPE TO THREADED EXTERNAL GAS FITTING. Copper Alloy overall. Nitrogen, liquid media. Maximum operating pressure, 3000.0 PSI. Plain first end with inverted flare second end. 37.0 degree seat angle second end. NPT threads first end and NGO on second end. Nominal thread size, 1/4 inch first end. 29/32 inches second end. Nominal overall length, 1.781 inches.

00-004-8238

THREADED EXTERNAL PIPE TO THREADED INTERNAL GAS FITTING, SWIVEL NUT. Steel Composition material. 1/4 inch. NPT thread on one end and 29/32 inches. NGO thread on the other end. NGO thread is left hand. Overall length is 2.000 inches.

01-263-3063

## ADAPTER, STRAIGHT, PIPE TO HOSE

THREADED EXTERNAL PIPE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

Copper Alloy

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-987-9073*	.500	.375	.796	4.875
00-432-9616	.750	.640	.760	2.260
00-513-7850	.750	.625	1.708	3.240
00-513-7849	1.000	.875	1.234	2.990
00-513-7851	2.000	1.810	2.220	4.050

\* Short hose gripping.

Steel Overall

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-374-6946	.500	.500	.920	2.880
00-374-6960	.500	.500	.970	3.158
00-374-6947	.750	.620	1.080	3.240
00-568-2200	.750	.750	1.250	3.610

Steel, Zinc Plated

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-225-8596	1.000	1.000	1.562	4.400
00-289-3257	1.500	1.500	2.250	5.406

THREADED EXTERNAL PIPE TO THREADED INTERNAL HOSE, GASKET SEAL. Right hand threads both ends. Furnished with 1 gasket. Special Feature: Wrenching feature located on outer periphery of flange, 5/8 inch from hose end.

Aluminum Alloy Anodized

Copper Alloy

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-533-8143	.375	.410	.770	2.480
00-990-6108	.500	.500	.920	2.880
00-203-3631	1.250	1.120	1.500	3.230

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-506-2683	1.500	1.380	1.750	3.480

Nickel Alloy

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-177-5945	.375	.410	.770	2.480

Steel

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-880-1273*	.250	.250	.580	1.960
00-374-6953†	1.500	1.380	1.750	3.480

\* NPT thread.

† 37 degree seat angle.

Steel, Cadmium Plated

	NPTF/In.	ID/In.	OD/In.	Lg/In.
00-374-6948	.125	.190	.520	1.680
00-217-2433	.250	.312	.520	2.130
00-374-6950	.375	.410	.770	2.480
00-879-5398	.500	.406	.770	2.730
00-374-6951	1.000	.875	1.234	2.990
00-852-6227	1.250	1.125	1.500	3.212

THREADED EXTERNAL PIPE, PLAIN TO UNTHREADED EXTERNAL HOSE, BARBED OR BEADED.



BARBED OR BEADED (HOSE)

Copper Alloy

	NPT/In.	ID/In.	Lg/In.
00-028-7021	.250	.375	1.594
01-158-8417	.250	.375	1.641
00-934-8026	.375	.380	1.760

UNTHREADED EXTERNAL PIPE, (BEADED) TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

Aluminum Alloy

	Pipe Size/In.	Hose ID/In.	Lg/In.
00-793-9811	6.000	5.800	6.560
00-793-9809	7.000	6.700	7.410

## ADAPTER, STRAIGHT, PIPE TO TUBE

Steel, corrosion resisting. Maximum operating pressure, 15000.0 PSI. Threaded external tube first end and threaded internal pipe second end. Plain connection style. Nominal pipe size accommodated, 0.250 inches second end. Nominal outside diameter tube, 0.250 inches first end.

	Tube UNF	Pipe NPT
00-003-6994	0.438	0.250

Titanium Alloy overall. Maximum operating pressure, 3000.0 PSI. 135 degree Celsius



maximum operating temperature.

	Tube UNJS	Boss UNJS	O/A Lg/In.
00-004-2798	23/32	23/32	1.363

Titanium Alloy overall. Hydraulic fluid single response media. Maximum operating pressure, 3000.0 PSI. Maximum operating temperature, 315.0 degrees Celsius. THREADED EXTERNAL TUBE FIRST END TO THREADED EXTERNAL BOSS SECOND END. Cushion seal first end. External seat for gasket seal second end.

	Tube UNJS	Boss UNJF	O/A Lg/In.
00-003-8828	23/32	3/4	1.035

Titanium Alloy UNS R54520 overall. Maximum operating pressure, 3000.0 PSI. Maximum operating temperature, 275.0 degrees Fahrenheit. THREADED EXTERNAL TUBE FIRST END TO THREADED EXTERNAL BOSS SECOND END. Cushion seal first end. External seat for gasket seal second end.

	Tube UNJS	Boss UNJ	O/A Lg/In.
00-003-8829	27/32	7/8	1.117

Titanium Alloy UNS R54520 overall. Maximum operating pressure, 3000.0 PSI. Maximum operating temperature, 275.0 degrees Fahrenheit. THREADED EXTERNAL TUBE FIRST END TO THREADED EXTERNAL BOSS SECOND END. Cushion seal first end and external seat for gasket seal second end. SPECIAL FEATURES; Weapon system essential.

	Tube UNJS	Boss UNJ	O/A Lg/In.
00-003-8830	1-1/4	1-5/16	1.325

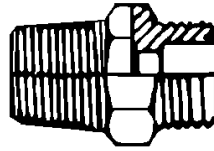
Steel composition 316 overall with Passivate overall surface treatment. Unthreaded external tube 1st end. Threaded external pipe 2nd end. B100A plain first end connection style. Nominal pipe size accommodated, 0.250 inches 2nd end. Nominal outside diameter tube accommodated, 0.250 inches 1st end. NPT threads 2nd end. Nominal thread size 0.250 inches 2nd end. Nominal overall length, 1.437 inches.

00-957-1824

Threaded External Pipe to:



THREADED EXTERNAL COMPRESSION TYPE TUBE. Furnished with sleeve and coupling nut.



Copper Alloy

	Pipe NPTF	Tube UNS	O/A Lg/In.
00-288-9928*	1/8-27	5/16-24	.790
00-851-1940*	1/8-27	3/8-24	.844
00-278-4357†	1/8-27	7/16-24	.875
00-270-4613	1/8-27	1/2-24	.906
00-278-4575	1/4-18	7/16-24	1.310
00-266-2417†	1/4-18	1/2-24	1.090
00-278-4574‡	1/4-18	9/16-24	1.222
00-270-4621‡	1/4-18	5/8-24	1.188

\* UNF thread.

† NPT thread.

‡ UNEF thread.

Steel, Cadmium Plated

	Pipe NPT	Tube UNS	O/A Lg/In.
00-740-2580	1/4-18	11/16-20	1.219

THREADED EXTERNAL TUBE, FLARED. 37 degree seat angle.



Aluminum Alloy, Anodized

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-222-1794	1/8-27	5/16-24	1.016
00-240-5905	1/8-27	7/16-20	1.120
00-187-0088	1/8-27	1/2-20	1.141
00-187-0087	1/4-18	7/16-20	1.375
00-196-9585	1/4-18	1/2-20	1.375
00-196-9580*	1/4-18	9/16-18	1.375
00-196-9584	3/8-18	9/16-18	1.406
00-196-9581*	3/8-18	3/4-16	1.500
00-196-9589†	3/4-14	1-1/16-12	1.953
00-186-9495	3/4-14	1-5/16-12	2.031

\* UNF thread.

† UN thread tube.

Copper Alloy, Cadmium Plated

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-287-0547*	1/4-18	7/16-20	1.406
00-274-4504*	1/2-14	9/16-18	1.625

\* NPT thread pipe.

Copper Alloy, Non Spec Items

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-677-1289	1/8-27	7/16-20	1.110
00-277-7905*	1/4-18	7/16-20	1.500
00-580-2070	1/4-18	9/16-18	1.430
00-899-4758	1/2-14	3/4-16	1.750
01-192-4393*	9/16-14	9/16-18	.846

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-289-4716	1-12	1-5/16-12	2.250
01-159-0832†	1-12	1-5/8-12	2.500

\* NPT thread pipe.

† UNJ thread tube.

Steel, Cadmium Plated

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-942-9147	3/8-18	7/16-20	1.422

Steel, Corrosion Resisting. Non Spec Item.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-473-8357*	1/8-27	7/16-20	1.062

\* 45 degree seat angle.

Steel, Corrosion Resisting. Type 304.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-720-0182*	1/8-27	5/16-24	1.062
00-698-4035	1/8-27	7/16-20	1.109
00-911-7127	1/4-18	7/16-20	1.375
00-842-6484	1/4-18	1/2-20	1.375

\* NPT pipe and UNF tube.

Steel, Corrosion Resisting. Type 347.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-289-0360	1/4-18	7/16-20	1.375

Steel, Cadmium Plated.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-187-0840*	1/8-27	7/16-20	1.109
00-542-3284	1/4-18	7/16-20	1.375

\* NPTF pipe.

Steel, Cadmium Plated.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-289-0383	1/8-27	7/16-20	1.220
00-995-1559	1/4-18	9/16-18	1.380
00-322-8457	3/8-18	9/16-18	1.400
00-079-8814	1/2-14	9/16-18	1.690
00-809-9427	1/2-14	3/4-16	1.720
00-202-8470	1-1/4-12	1-5/8-12	2.360

Steel, Corrosion Resisting.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-836-7807	1/4-18	9/16-18	1.390
01-239-7501	1/4-18	9/16-18	1.430
00-837-7073	1/4-18	7/16-20	1.420

45 DEGREE SEAT ANGLE.

Copper Alloy

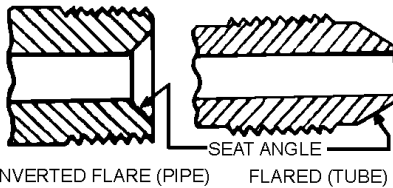
	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-288-9938	1/8-27	5/16-24	.920
00-266-0531	1/8-27	3/8-24	.938
00-266-0535	1/8-27	1/2-20	1.156
00-900-3296	1/8-27	7/16-20	1.060
00-439-6021*	1/8-27	5/8-18	1.440

# CLASS 4730

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-266-0533	1/4-18	7/16-20	1.230
00-266-0536	1/4-18	1/2-20	1.343
00-266-0538	1/4-18	5/8-18	1.438
00-266-0534	3/8-18	7/16-20	1.375
00-439-1722	3/8-18	5/8-18	1.440
00-266-0541	3/8-18	3/4-16	1.620
00-827-9291	1/2-14	5/8-18	1.690
00-266-0543	1/2-14	7/8-14	2.000

\* Non Spec Item.

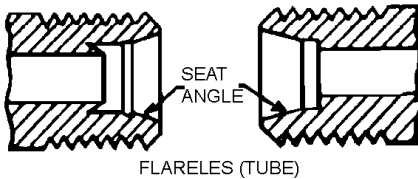
THREADED EXTERNAL PIPE, INVERTED FLARE, 30 DEGREE SEAT ANGLE TO EXTERNAL TUBE, FLARED, 37 DEGREE SEAT ANGLE.



Steel, Cadmium Plated.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-865-9251	1/2-14	1-1/16-12	1.953
00-718-2621	1-12	1-5/16-12	2.300

THREADED EXTERNAL TUBE, FLARELESS. Furnished with 1 sleeve and 1 coupling nut.



12 DEGREE SEAT ANGLE.

Steel, Cadmium Plated.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-003-5919	1/8-27	7/16-20	1.120
00-836-3498	1/4-18	7/16-20	1.320

Steel, Corrosion Resisting.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-684-4065	1/8-27	7/16-20	1.000
00-812-1175	1/8-27	7/16-20	1.120
00-720-2007	1/4-18	7/16-20	1.320
00-239-0189*	1/4-18	7/16-20	1.188
01-010-6291*	1/4-18	9/16-18	1.068
01-097-0977	1/2-14	1-1/16-12	1.880

\* Non Spec Item with NPT thread.

20 DEGREE SEAT ANGLE, NON SPEC ITEM.

Copper Alloy

	Pipe NPT	Tube UNS	O/A Lg/In.
00-588-2687†	1/4-18	7/16-20	1.188
00-691-5441	1/4-18	9/16-20	1.281

	Pipe NPT	Tube UNS	O/A Lg/In.
00-691-5442†	3/8-18	9/16-20	1.281

\* UNF thread tube.  
† Furnished with 2 sleeves.

Steel, Composition, Passivated.

	Pipe NPT	Tube UNF	O/A Lg/In.
00-935-9490	3/8-18	7/16-20	1.510
00-691-5460*	3/8-18	9/16-20	1.281
00-103-1978†	1/2-14	7/16-20	1.438

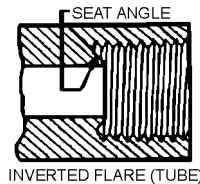
\* NPTF thread pipe.  
† Furnished with 2 sleeves.

37 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting.

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-845-4983	1/4-18	9/16-18	1.340

THREADED INTERNAL TUBE, INVERTED FLARE. 42 DEGREE SEAT ANGLE.



Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-424-5867*	1/8-27	5/16-24	.750
00-289-1930	1/8-27	3/8-24	.687
00-540-2612†	1/8-27	7/16-24	.734
00-424-5871†	1/4-18	7/16-24	.875

\* NPT thread pipe.  
† UNS thread tube.

45 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPT	Tube UNF	O/A Lg/In.
00-289-1254	1/4-18	5/8-18	.968

Steel

	Pipe NPT	Tube UNF	O/A Lg/In.
00-947-4290	1/4-18	3/4-18	1.487

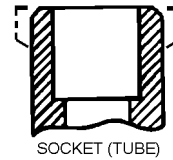
UNTHREADED EXTERNAL TUBE, GROOVED.



Copper Alloy

	Pipe NPTF	Tube Size	O/A Lg/In.
00-396-0162	1/8-27	1/4	1.218

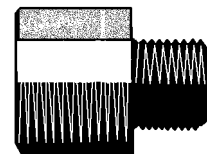
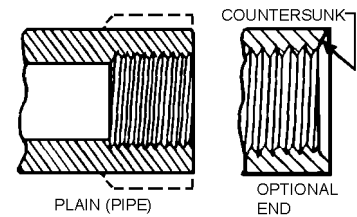
UNTHREADED INTERNAL TUBE, SOCKET.



Copper Alloy

	Pipe NPT	Tube Size	O/A Lg/In.
00-203-7007	1/2-14	3/4	1.656

THREADED INTERNAL PIPE TO: THREADED EXTERNAL TUBE, FLARED. 37 DEGREE SEAT ANGLE.



Steel, Cadmium Plated.

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-802-2818	1/4-18	7/16-20	1.390

Steel Composition 316.

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-709-2778	1/4-18	9/16-18	1.400

Steel CRES.

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-580-8171	1/4-18	7/16-20	1.390

45 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg/In.
00-090-0832	1/8-27	7/16-20	1.060
00-289-0379	1/4-18	7/16-20	1.250
00-270-4606	1/4-18	5/8-18	1.312
00-289-0368	3/8-18	5/8-18	1.375
00-266-0545	1/2-14	7/16-20	1.125
00-826-4278	3/4-14	7/16-20	1.125

THREADED EXTERNAL TUBE, FLARELESS. Furnished with 1 sleeve and 1 coupling nut.

12 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg./In.
00-722-1371	1/4-18	7/16-20	1.125
00-139-3885*	1/4-18	1/2-24	1.297

\* UNS thread, tube.

Steel, Corrosion Resisting.

	Pipe NPTF	Tube UNF	O/A Lg./In.
00-088-4554	1/4-18	9/16-18	1.310

20 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg./In.
00-140-7066	1/8-27	7/16-20	1.560

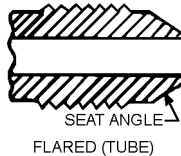
Steel, Corrosion Resisting.

	Pipe NPT	Tube UNF	O/A Lg./In.
00-684-4064*	1/8-27	7/16-20	1.250
00-720-3913	1/4-18	7/16-20	1.219
00-725-3594†	3/8-18	9/16-20	1.250

\* Furnished with 2 sleeves.  
† NPTF thread pipe and UNS thread tube.

## ADAPTER, STRAIGHT, TUBE TO BOSS

THREADED EXTERNAL TUBE, FLARED.



THREADED EXTERNAL BOSS, EXTERNAL SEAT FOR GASKET SEAL. 37 DEGREE SEAT ANGLE.



Aluminum Alloy, Anodized.

	Tube UN	Boss UN	O/A Lg./In.
00-117-3959	1-1/16-12	1-5/8-12	1.910

Steel, Cadmium Plated.

	Tube UNF	Boss UNF	O/A Lg./In.
01-007-5232	7/16-20	7/16-20	1.234
00-816-4793	7/16-20	7/16-20	1.219
00-051-5209	9/16-18	3/4-16	1.375
01-156-4835	3/4-16	3/4-16	1.480
00-710-5571	*	*	1.969

\* Tube and Boss 1-1/16-12 UNF.

Steel, Corrosion Resisting.

	Tube UNF	Boss UNF	O/A Lg./In.
00-834-5035	7/16-20	7/16-20	1.230
00-861-1814	7/16-20	9/16-18	1.290
00-683-8586	9/16-18	9/16-18	1.300

Steel, Painted.

	Tube UNF	Boss UNEF	O/A Lg./In.
00-937-0229	3/8-24	5/8-24	1.188

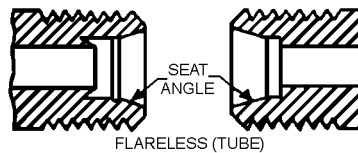
45 DEGREE SEAT ANGLE.

Steel

	Tube UNF	Boss UNF	O/A Lg./In.
00-446-6602	3/8-24	7/16-20	2.594
00-432-1204	*7/16-20	9/16-24	2.500

\* UNEF thread boss.

THREADED EXTERNAL TUBE, FLARELESS.



THREADED EXTERNAL BOSS, EXTERNAL SEAT FOR GASKET SEAL. Tube end seat angle listed.

5 DEGREE SEAT ANGLE.

Aluminum Alloy

	Tube UNF	Boss UNEF	O/A Lg./In.
00-130-6801	1-5/8-12	1-11/16-18	1.950

12 DEGREE SEAT ANGLE.

Steel, Cadmium Plated.

	Tube UNF	Boss UNF	O/A Lg./In.
00-173-1884	7/16-20	7/16-20	1.130
00-407-0558	9/16-18	9/16-18	1.120

Steel, Corrosion Resisting.

	Tube UNF	Boss UNF	O/A Lg./In.
00-897-5591	7/16-20	7/16-20	1.130
01-010-6290*	9/16-18	9/16-18	1.156
00-411-5597	9/16-18	9/16-18	1.210

\* Non Spec Item.

Steel, Phosphate Coated.

	Tube UNF	Boss UN	O/A Lg./In.
00-678-9458	1-1/16-18	1-1/16-12	1.790

20 DEGREE SEAT ANGLE.

Plastic Polyamide

	Tube UNF	Boss UNF	O/A Lg./In.
00-125-4770*	9/16-18	9/16-18	1.188

\* Non Spec Item.

Steel, Corrosion Resisting.

	Tube UN	Boss UNF	O/A Lg./In.
00-411-5438	9/16-20	9/16-18	1.380

30 DEGREE SEAT ANGLE.

Aluminum Alloy

	Tube UN	Boss UNF	O/A Lg./In.
00-121-7487*	3/4-16	9/16-18	1.610

\* Non Spec Item.

THREADED EXTERNAL TUBE, INVERTED FLARE TO THREADED EXTERNAL BOSS, GASKET SEAL.

8.5 DEGREE SEAT ANGLE.

Titanium Alloy

	Tube UNJS	Boss UNJF	O/A Lg./In.
00-005-5513*	9/16-20	7/16-20	.942
00-009-0369*†	1-9/16-14	1-5/16-12	1.349

\* Three, .070 inch diameter safety wire holes, 120 degrees apart.  
† UNJ thread boss.

12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting

	Tube UNF	Boss UNF	O/A Lg./In.
00-950-0087	7/16-20	7/16-20	1.219

THREADED EXTERNAL TUBE TO THREADED INTERNAL BOSS. Flared tube end type with 37 degree seat angle.

Aluminum Alloy, Anodized

	Tube UNJF	Boss UNJF	O/A Lg./In.
00-929-6211*	7/16-18	3/8-24	.843
00-060-5754	7/16-20	1/2-20	1.500
00-684-6917†	7/16-20	9/16-18	1.391

\* UNS thread tube and UNF thread boss.  
† UNF all ends.

Steel, Cadmium Plated.

	Tube UNJF	Boss UNJF	O/A Lg./In.
00-806-5902	7/16-20	9/16-18	1.391
00-805-7536*	7/16-20	3/4-16	1.578

\* UNF all ends.

Steel, Corrosion Resisting.

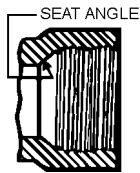
	Tube UNJF	Boss UNJF	O/A Lg./In.
00-440-0229*	7/16-20	1/2-20	1.406

\* UNF all ends.

THREADED INTERNAL TUBE, FLARED TO:

# CLASS 4730

THREADED INTERNAL TUBE, INVERTED FLARE. 45 DEGREE SEAT ANGLE TO THREADED EXTERNAL BOSS, GASKET SEAL.

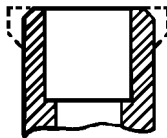


FLARED (TUBE)

Steel

	Tube UNS	Boss UNF	O/A Lg./In.
00-424-4019	3/4-18	9/16-18	1.125

UNTHREADED INTERNAL TUBE, SOCKET (UNION) TO: THREADED EXTERNAL BOSS, GASKET SEAL.



SOCKET (TUBE)

Steel

	Tube OD	Boss UNF	O/A Lg./In.
01-017-5123	1/4	7/16-20	1.250

Plastic overall. Maximum operating temperature, 250.0 degrees Fahrenheit single response. Unthreaded internal tube 1st end and threaded external boss 2nd end. B37 crimped connection style 1st end. B80 gasket seal 2nd end. Nominal outside diameter, tube accommodated, 0.250 inches 1st end. Thread series designator, UNF 2nd end. Nominal thread size 0.437 inches 2nd end. Thread class, 2A 2nd end. Nominal overall length, 1.500 inches. Furnished items and quantity, 1 preformed packing.

01-130-1867

## ADAPTER, STRAIGHT, TUBE TO HOSE

THREADED EXTERNAL TUBE, FLARED TO UNTHREADED EXTERNAL HOSE, BEADED. 45 DEGREE SEAT ANGLE.

Copper Alloy

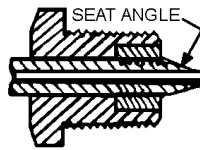
	Tube UNS	Hose ID./In.	O/A Lg./In.
00-913-5967	7/32-32	3/32	1.094

THREADED EXTERNAL TUBE, GASKET SEAL TO UNTHREADED EXTERNAL HOSE, BEADED.

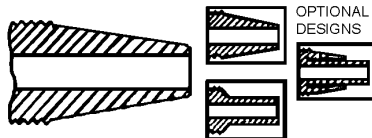
Steel, Corrosion Resisting

	Tube UNS	Hose ID./In.	O/A Lg./In.
00-919-7367	3/8-27	1/4	1.094

THREADED EXTERNAL TUBE, SWIVEL NUT WITH INTERNALLY THREADED SLEEVE AND FLARE TUBE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 37 DEGREE SEAT ANGLE.



SWIVEL NUT with INTERNALLY THREADED SLEEVE and FLARE TUBE (TUBE)



GRIPPING NIPPLE (HOSE)

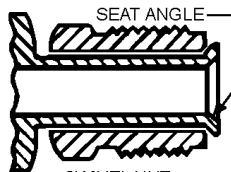
Aluminum Alloy, Anodized.

	Tube UN	Hose ID./In.	O/A Lg./In.
00-842-1139	11-5/16-12	7/8	2.870

Steel Cadmium Plated.

	Tube UNF	Hose ID./In.	O/A Lg./In.
00-842-2198	3/8-24	1/8	1.688

THREADED EXTERNAL TUBE, SWIVEL NUT, INVERTED FLARE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 45 DEGREE SEAT ANGLE.



SWIVEL NUT INVERTED FLARE (TUBE)

Steel

	Tube UNF	Hose ID./In.	O/A Lg./In.
00-485-9279	1/2-20	1/4	1.840
00-977-8774	3/8-24	5/16	2.720

Steel, Cadmium Plated

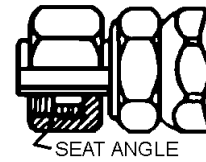
	Tube UNF	Hose ID./In.	O/A Lg./In.
01-107-2000*	7/16-24	3/16	2.469
00-483-4831*	3/4-18	13/32	3.130

\* UNS thread tube.

THREADED INTERNAL TUBE, COMPRESSION SLEEVE TO THREADED HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting

	Tube UNS	Hose ID./In.	O/A Lg./In.
00-919-7367	3/8-27	1/4	1.094

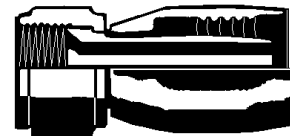


SWIVEL NUT with COMPRESSION SLEEVE (TUBE)

Aluminum, Anodized body. Steel, Cadmium Plated nipple and nut.

	Tube OD./In.	Hose ID./In.	O/A Lg./In.
00-541-6603	3/4-16	7/16	3.156

THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.



37 DEGREE SEAT ANGLE.

Aluminum Alloy, Anodized.

	Tube UNJF	Hose ID./In.	O/A Lg./In.
00-842-2202	3/4-16	13/32	2.580
00-842-1138	7/8-14	1/2	2.850
00-842-2199	1-1/16-12	5/8	2.414
00-848-7283	1-5/8-12	1-1/8	3.047
00-844-3483	1-7/8-12	11-3/8	3.340

Aluminum Alloy, Anodized.

	Tube UNJF	Hose ID./In.	O/A Lg./In.
00-125-2640	7/8-14	1/2	1.860
00-935-9382	1-1/16-12	5/8	2.240

Aluminum Alloy, Anodized.

	Tube UNJF	Hose ID./In.	O/A Lg./In.
00-497-4281*	7/16-20	1/4	1.594
00-278-5686*	9/16-18	7/16	2.000

\* UNF thread tube.

Aluminum Alloy, Anodized.

	Tube UNJF	Hose ID./In.	O/A Lg./In.
00-613-1859*	9/16-18	11/32	1.480
00-585-6212	1-5/16-12	7/8	2.641
00-585-6210	1-5/8-12	1-1/8	3.281

\* UNF thread tube

Copper Alloy

	Tube UNF	Hose ID./In.	O/A Lg./In.
00-709-7520	7/16-20	1/4	1.300
00-051-4678	7/16-20	3/16	1.750
00-066-0735	9/16-18	5/16	1.740
00-588-2587	9/16-18	5/16	2.050

# CLASS 4730

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-119-0511	7/8-14	1/2	2.220
00-506-2472	1/2-20	1/4	1.900
00-203-3558	3/4-16	13/32	2.520
00-397-3169	1-1/16-12	5/8	2.330
00-203-3553	1-1/16-12	3/4	3.150
00-573-1416	1-5/16-12	1	2.820
00-217-2431	1-5/8-12	1-1/8	3.000
00-588-2597	1-7/8-12	1-3/8	3.280
00-771-9424	2-1/2-12	1-13/16	3.880

## Nickel Alloy

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-904-8172	9/16-18	5/16	2.050
00-082-5987	3/4-16	13/32	2.520
00-082-5995	1-5/8-12	1-1/8	3.000

## Steel

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-937-0234	7/16-20	1/4	2.640
01-065-7552	9/16-18	5/16	2.050
01-012-5660	9/16-18	5/16	2.330
01-023-7726	9/16-18	3/8	2.980
00-568-2258	7/8-14	1/2	2.800
00-897-5930	7/8-14	1/2	3.100
00-081-5893	7/8-14	1/2	3.300
00-982-1360	7/8-14	5/8	3.400
00-684-7441	3/4-16	27/64	2.484
00-881-5536	1-1/16-14	5/8	3.490
00-420-4494	1-1/16-14	41/64	2.330
00-592-1014	1-5/16-12	7/8	2.820
00-203-3420	1-5/8-12	1-1/8	3.000
00-547-0951	1-5/8-12	1-1/4	5.100
00-928-6571	1-7/8-12	1-1/2	5.160

## Steel, Cadmium Plated.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-842-2200	7/16-20	3/16	1.800
00-843-0269	9/16-18	5/16	2.100
00-842-2201*	1/2-20	1/4	2.120

\* UNJF thread tube.

Steel, Cadmium Plated. Intended for use in high pressure hydraulic and pneumatic flexible hose applications (3000 PSI).

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-554-7830	1/2-20	9/32	3.156
00-541-4252	7/16-20	7/32	3.156
00-554-7831	9/16-18	11/32	3.281
00-541-4253	3/4-16	7/16	3.125
00-554-7832	7/8-14	9/16	3.671
00-554-7833	1-1/16-12	11/16	4.234
00-541-6606	1-5/16-12	7/8	4.651

## Steel, Cadmium Plated.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-618-7378	7/16-20	7/32	1.730

## Steel, Cadmium or Zinc Plated. Non Spec Item.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-203-3550	7/16-20	3/16	1.750

	Tube UNF	Hose ID/In.	O/A Lg/In.
01-087-8886	7/16-20	3/16	1.970
00-628-0020	9/16-18	1/4	2.790
01-157-7960	9/16-18	3/8	2.890
01-076-1515	3/4-16	3/8	3.160
01-106-9651	3/4-16	13/32	2.780
00-952-0038	3/4-16	1/2	3.200
00-929-1107	1-5/16-12	7/8	3.500
00-374-6954	1-5/16-12	1	4.480
00-703-4391	2-1/2-12	2	5.900

Steel, Corrosion Resisting. Intended for use in medium pressure, high temperature fuel, lubricating oil, water-alcohol, chemical-fluid systems, and hydraulic and pneumatic systems. 37 degree seat angle.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-007-2199*	3/16-24	3/16	1.547
00-889-2474	7/16-20	3/16	1.720
00-889-2475	1/2-20	1/4	1.790
00-982-9736	9/16-18	5/16	1.225
01-022-3151†	3/4-16	13/32	1.700
00-889-2476	3/4-16	13/32	2.130
01-049-3696*†	7/8-14	1/2	1.860
00-889-2478	1-1/16-12	5/8	2.500
00-889-2473	1-5/16-12	7/8	2.750
00-017-8234	1-5/16-12	1	2.593

\* UNJF thread tube.

† Drilled for lockwire.

Steel, Corrosion Resisting. Intended for use in aircraft and missile high temperature (400 degrees Fahrenheit), high pressure (3000 PSI) hydraulic systems. Suitable for use in high pressure (3000 PSI), high temperature (160 degrees Fahrenheit) pneumatic systems. 37 degree seat angle.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-948-9003	7/16-20	7/32	1.578
00-266-8301	9/16-18	5/16	1.690
00-543-8660	3/4-16	7/16	1.890

## Steel, Corrosion Resisting. Non Spec Item.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-057-6456	7/16-20	3/16	1.750
00-421-1357	3/4-16	7/16	1.980
00-421-1358	7/8-14	1/2	2.220
00-400-6558	1-5/16-12	7/8	2.520
00-052-4834	1-5/16-12	7/8	2.820
00-420-8670	1-5/8-12	1-1/8	2.920

## Steel or Iron, Zinc Plated.

	Tube UN	Hose ID/In.	O/A Lg/In.
00-472-2611	1-1/16-12	3/4	2.860

## 45 DEGREE SEAT ANGLE.

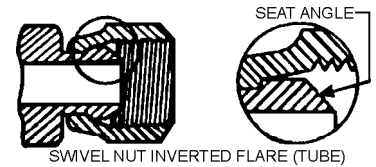
## Copper Alloy

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-592-0158	5/8-18	5/16	2.050
00-542-4336	3/4-16	13/32	2.437
00-709-7518	7/8-14	1/2	2.800

## Steel, Cadmium or Zinc Plated.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-051-8568	5/8-18	5/16	2.360

THREADED INTERNAL TUBE, INVERTED FLARE SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 37 DEGREE SEAT ANGLE.



Aluminum, Anodized body. Steel, Cadmium Plated nipple and nut.

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-541-6607	7/16-16	7/32	2.491

## Steel, Corrosion Resisting.

	Tube UNF	Hose ID/In.	O/A Lg/In.
01-024-0910*	7/16-24	9/64	1.438

\* Drilled for lockwire. UNJS thread tube.

THREADED INTERNAL TUBE, SWIVEL NUT, FLARE. 37 DEGREE SEAT ANGLE TO THREADED EXTERNAL HOSE, PLAIN.

## Aluminum Alloy, Anodized.

	Tube UNF	Hose NPSH	O/A Lg/In.
00-618-8485	3/4-16	1/2-14	2.130

THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO UNTHREADED EXTERNAL HOSE, BARBED OR BEADED. 37 DEGREE SEAT ANGLE.

## Copper Alloy

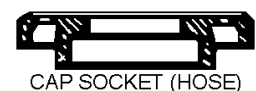
	Tube UNF	Hose ID/In.	O/A Lg/In.
00-555-1152	7/16-20	1/4	1.460

## 45 DEGREE SEAT ANGLE.

## Copper Alloy

	Tube UNF	Hose ID/In.	O/A Lg/In.
00-542-2807	3/4-16	1/2	1.950

THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO UNTHREADED INTERNAL HOSE CAP SOCKET. 37 DEGREE SEAT ANGLE.

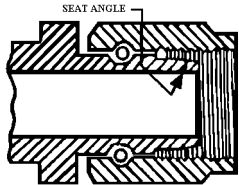


## Aluminum Alloy, Anodized.

# CLASS 4730

	Tube UNF	Hose ID/in.	O/A Lg/in.
00-289-2824	3/4-16	1/2	2.172

THREADED INTERNAL TUBE, FLARELESS SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE.



SWIVEL NUT, FLARELESS (TUBE)

Aluminum, Anodized socket. Steel, Cadmium Plated nipple and nut.

	Tube UNF	Hose ID/in.	O/A Lg/in.
00-541-6608	7/8-14	9/16	3.564
00-541-6605	1-1/16-12	11/16	3.594

Steel, Corrosion Resisting.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
00-877-9876	1/2-20	1/4	1.570
00-929-5705	3/4-16	13/32	2.000
00-248-3918	1-5/16-12	7/8	2.422

Steel, Corrosion Resisting. 3000 PSI.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
00-948-9314	7/16-20	7/32	1.734
00-948-9623	9/16-18	5/16	1.000
00-106-4417	3/4-16	7/16	2.210
00-545-0791	7/8-14	9/16	2.410

## 37 DEGREE SEAT ANGLE

Steel Composition 304 overall.

B3 swivel nut flare 1st end. B100C plain 2nd end. Nominal inside diameter hose accommodated, 0.500 inches 2nd end. Nominal outside diameter tube accommodated, 0.500 inches 1st end. Thread series, UNJF 1st end. Nominal thread size, 0.750 inches 1st end. Thread class, 3B 1st end. Includes 1 swivel.

01-027-2652

Steel, CRES overall.

B3 swivel nut, flare 1st end. B100C plain 2nd end. Nominal inside diameter hose accommodated, 0.141 inches 2nd end. Nominal outside diameter tube accommodated, 0.250 inches 1st end. UNJF threads 1st end. Nominal thread size, 0.438 inches 1st end. 3B thread class 1st end. Nominal overall length, 1.460 inches. Includes 1 swivel.

01-026-9143

37 DEGREE SEAT ANGLE.

Steel, CRES. 1500 PSI.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
00-053-0379	9/16-18	5/16	1.715

45 DEGREE SEAT ANGLE.

Aluminum Alloy (Anodized). 1500 PSI.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
00-053-0418	7/8-14	1/2	2.140

Steel, Corrosion Resisting.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
00-054-7650	7/16-20	3/16	1.688

THREADED INTERNAL TUBE, SWIVEL NUT FLARELESS TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNF	Hose ID/in.	O/A Lg/in.
01-026-9149	7/16-20	7/32	1.690
01-026-9151	9/16-18	1/4	1.800
01-026-9152	7/8-14	15/32	2.350
01-026-9154	1-1/16-12	9/16	2.700

THREADED INTERNAL TUBE, SWIVEL NUT, GASKET SEAL TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNJ	Hose ID/in.	O/A Lg/in.
01-024-0911*	9/16-20	5/16	2.310

\* Drilled for lockwire.

THREADED INTERNAL TUBE, SWIVEL NUT FLARE TO UNTHREADED EXTERNAL HOSE. 12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
01-027-2653	3/4-16	3/8	2.140

37 DEGREE SEAT ANGLE.

Copper Alloy. Non Spec Item.

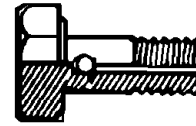
	Tube UNJF	Hose ID/in.	O/A Lg/in.
01-004-8348	7/16-20	5/32	1.600

Steel Composition. Non Spec Item.

	Tube UNJF	Hose ID/in.	O/A Lg/in.
01-026-9144	9/16-18	1/4	1.570
01-026-9147	1-1/16-12	9/16	2.260

## BOLT, FLUID PASSAGE

THREADED EXTERNAL TUBE. Hexagon wrenching feature.



Steel, overall length 4.625 inches. Thread size 1/2-20 UNF, thread length .937 inches. Distance from radial hole center to end of bolt, 1.375 inches. Radial hole diameter .062 inches and concentric hole diameter .125 inches.

00-212-6331

THREADED EXTERNAL TUBE, FLARED. Hexagon wrenching feature. 45 degree seat angle.

Steel, Cadmium Plated overall length, 1.375 inches, thread size, 7/16-20 UNF. Thread length .437 inches. Distance from radial hole center to end of bolt .781 inches. Radial hole diameter .187 inches and concentric hole diameter .172 inches.

00-278-0375

00-006-9373\*

\* Steel Corrosion Resisting.

THREADED EXTERNAL TUBE, INVERTED FLARE. Hexagon wrenching feature, 45 degree seat angle.

Aluminum, Anodized. Overall length, 1.375 inches. Thread size, 7/16-20 UNF. Thread length .406 inches. Distance from radial hole center to end of bolt .796 inches. Radial fluid hole diameter .172 inches and concentric hole diameter .172 inches.

00-720-0692

## BOWL, SEDIMENT

Plastic, Polycarbonate. Threaded open end type, 2-3/4-16 UNS threads convex closed end. Unthreaded .625 inch hole, 5.188 inches long. Inside diameter, 2.225 inches. Largest outside diameter, 2.750. Furnished with O-ring and drain cock.

01-032-6017

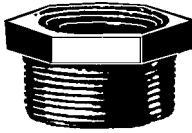
## BUSHING, DIESEL GENERATOR

Brass. 1.775 inch inside diameter. Flanged on one end, 2.490 inches. Outside diameter .080 inches thick. Width .250 inches. Inside diameter of inner circle is 2.375 inches.

00-931-0975

## BUSHING, PIPE

TAPER PIPE THREAD, EXTERNAL TO INTERNAL. Outside head, hexagon or octagon wrenching feature.



Aluminum Alloy, Anodized. ANPT.

	Ext	Int
00-194-0204	1/4	1/8
00-194-0205	3/8	1/8
00-223-7074	3/8	1/4
00-194-0206	1/2	1/4
00-194-0209	3/4	3/8

Brass, Bronze, or Copper Alloy, Cadmium Plated.

	Ext	Int
00-277-9386	1/4	1/8
00-194-0215	3/8	1/8
00-222-1819*	3/8	1/4
00-194-0216*	1/2	1/4

\* NPT Thread.

Steel, Composition.

	Ext	Int
00-278-3905*	1/4	1/8
00-540-6145	3/8	1/4

\* NPT thread.

Steel, Passivated.

	Ext	Int
00-929-3399*	1/4	1/8
00-959-3815	3/8	1/8

\* NPT thread.

Brass, Bronze, or Copper Alloy.

	Ext	Int
00-196-0930	1/4	1/8
00-277-1896	1/2	1/4
00-989-3550	3/4	1/4
00-202-6491*	3/8	1/4
00-817-6578	1/2	3/8
00-196-0936	3/4	3/8
00-196-0939	1	3/8
00-196-0940	1	1/2
00-278-3167*	3/4	1/2
00-202-6492	1-1/4	1
00-277-1873	1-1/2	3/4
00-268-7479	2	1-1/2

\* NPT thread.

Iron, Malleable, Zinc Coated.

	Ext	Int
00-186-3024	1/4	1/8
00-196-0881	3/8	1/4
01-192-4729	1/2	1/4
00-196-0884	1/2	3/8
00-193-0875	3/4	1/2
00-196-0888	3/4	1/2
00-196-0892	1	3/4

Brass, NPTF. Non Spec Item.

	Ext	Int
00-204-1993	3/8	1/8

Steel, NPT. Non Spec Item.

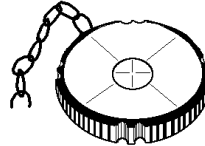
	Ext	Int
01-186-1017	3/8	1/8

Steel, Cadmium or Zinc Plated. NPTF. Non Spec Item.

	Ext	Int
00-580-7417	1/2	1/4

## CAP, HOSE

Slotted type wrenching surface. Internal National hose thread. Furnished with holding chain.



Brass or Copper Alloy

	Thread Size
00-242-3242	1-1/2--9
00-240-5540	2-1/2--7-1/2
00-240-5538	4-6

## CAP, LUBRICATION FITTING, PROTECTIVE

Press-on type. Caps are colored to permit grease coding and lubrication scheduling. End connection pressure type.

Polyethylene Plastic

00-270-3916	Black
00-270-3917*	Blue
00-270-3918	Brown
00-270-3919	Green
00-270-3920	Red
00-270-3921	White
00-270-3922	Yellow

\* End connection, socket type.

## CAP, PIPE

THREADED INTERNAL NPT THREADS. Not rated for WP or temperature.



Aluminum Alloy

	Thread Size
00-260-8267	3/4-14

Aluminum Alloy. Rated 150 PSI.

	Thread Size
00-260-8270	1-1/2--11-1/2

Aluminum Alloy.

	Pipe Size/In.
01-258-5118	2-1/2

	Pipe Size/In.
01-258-7241	3

Copper Alloy, NPT 125 PSI steam WP.

	Thread Size
00-224-0544	1/8-27
00-224-0545	1/4-18
00-224-0546	3/8-18
00-724-1998	1/2-14
00-231-2386*	3/4-14
00-231-2400	1--11-1/2
00-224-0550	1-1/4--11-1/2
00-231-2402†	1-1/2--11-1/2
00-231-2403	2--11-1/2
00-231-2404	2-1/2--8

\* Polished outside.

† NPTF thread.

Iron, Malleable. NPT 150 PSI steam WP.

Black Finish

	Thread Size
00-231-2411	1/2-14
00-231-2412	3/4-14
00-231-2413	1--11-1/2
00-231-2414	1-1/4--11-1/2
00-231-2415	1-1/2--11-1/2
00-231-2416	2--11-1/2

Zinc Coated Finish

	Thread Size
00-203-3168	1/4-18
00-231-2424	1/2-14
00-231-2425	3/4-14
00-231-2426	1--11-1/2
00-231-2428	1-1/2--11-1/2

UNTHREADED INTERNAL SOCKET. With brazing ring.

Copper Alloy.

	Pipe Size
00-595-1285	1/4
00-595-1282	3/4
00-595-1281	1
00-595-1279	1-1/2
00-595-1278	2

## CAP, QUICK DISCONNECT

0.250 inch NPT male threads. Quick disconnect nominal size, 0.250 inches all ends. Furnished items and quantity, 1 chain and 1 retaining clip.

01-101-0026

PUSH-PULL

Aluminum Alloy, Anodized.

	Size
00-475-4826	1-13/64

Plastic

No rating for operating pressure and temperature. Overall length, 0.875 inches nominal. Push-pull all ends.

# CLASS 4730

01-242-9975

QUICK LEAD THREADS. Furnished with Cadmium Plated Steel hook.

Aluminum Alloy, Anodized.

	Size
00-546-4736	1

SPRING PUSH-PULL

	Size
00-837-2459	1-1/4

TWIST-LOCK, quick disconnect type cap for use on hydraulic fluid lines. Furnished with chain.

Aluminum Alloy, Anodized.

	Size
00-561-1544	3/4
00-796-0334	1-1/4

CAP, TUBE

THREADED INTERNAL, NATIONAL SCREW THREADS, FLARED TYPE. 45 DEGREE SEAT ANGLE.



Copper Alloy

	Tube OD	UNF
00-260-8284	1/4	7/16-20
00-260-8285	5/16	1/2-20
00-260-8286	3/8	5/8-18
00-260-8288	1/2	3/4-16
00-260-8289	5/8	7/8-14
00-260-8290*	3/4	1-1/16--14

\* UNS Thread.

Steel, Cadmium or Zinc Plated. 37 degree seat angle.

	Tube OD	UN
00-647-3311	3/4	1-1/16--12

THREADED INTERNAL, NATIONAL SCREW THREADS, FLARED TYPE. 37 DEGREE SEAT ANGLE, PRESSURE SEAL.

Aluminum Alloy.

	Tube OD	UNF
00-633-4398*	1/8	5/16-24
00-221-2126	3/16	3/8-24
00-278-5006	1/4	7/16-20
00-585-8770*	1/4	7/16-20
01-061-4150	5/16	1/2-20
00-825-1460*	5/16	1/2-20
00-585-8769*	3/8	9/16-18
00-541-8296*	1/2	3/4-16
00-221-2127	5/8	7/8-14
00-221-2128†	3/4	1-1/16--12
00-221-2129	1	1-3/8--12
00-221-2130†	1-1/4	1-5/8--12

Tube OD UNF

\* Cap drilled for safety chain.  
† UNJ Thread.

Steel, Corrosion Resisting.

	Tube OD	UNF
00-140-4484*	1/4	1/4-28
00-720-1508†	1/4	7/16-20
00-541-1206	1/2	3/4-16
00-606-3825	3/4	1-1/16-12

\* Non Spec Item.

† Cap drilled for safety chain.

Steel, Corrosion Resisting.

	Tube OD	UNF
00-939-8492	1/4	7/16-20
00-984-4997	1/4	7/16-20

THREADED INTERNAL, NATIONAL SCREW THREADS. FLARELESS TYPE, PRESSURE SEAL.

Steel, Cadmium Plated.

	Tube OD	UNJF
01-142-7904	1/8	5/16-24
00-289-8633	3/16	3/8-24
00-640-0632	1/4	7/16-20
00-618-9069	5/16	1/2-20
00-618-3572	3/8	9/16-18
00-289-8634	1/2	3/4-16
00-618-4227	5/8	7/8-14
00-202-8792*	3/4	1-1/16--12
00-274-7120*	1	1-5/16--12

\* UNJ Thread.

Steel, Corrosion Resisting.

	Tube OD	UNF
00-990-6078	3/8	9/16-18

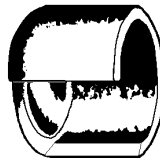
Steel, Corrosion Resisting. Non Spec Item.

	Tube OD	UNF
01-061-2584	3/8	9/16-18
00-133-0673	1/2	3/4-16

Steel, Corrosion Resisting. 20 degree seat angle.

	Tube OD	UNF
00-727-7491	1/4	7/16-20

UNTHREADED INTERNAL, SOCKET TYPE. With preinserted brazing ring.



Copper Alloy

	Tube OD
00-595-1284	.675
00-595-1283	.840
00-595-1280	1.660

## CAP, TUBE

Steel, CRES overall. A14 cap, tube, flareless style. FEATURES: Nut and O-Ring. End Item: Aircraft application.

01-112-9073

Titanium overall. A14 cap, tube, flareless style. End connection style, G6 pressure seal, flareless. UNJS internal threads, sized at 1.250 inches nominal internal. Thread quantity per inch, 14 internal. 3B right-hand threads. Tube outside diameter for which designed, 1.000 inches nominal. No rating for operating pressure or temperature.

01-112-9072

## CHIP DETECTOR, MAGNETIC

Stainless Steel, magnetic body, 1.530 inches minimum and 1.590 inches maximum long. 1/2-20 UNF 3A threads on one end. 5/8-24 UNEF 2A threads on the other end. 0.750 inch wrenching flats in center. 0.295 inches minimum and 0.325 inches maximum length wrenching flats. Two 0.069 inches minimum and 0.074 inches maximum diameter holes drilled through sides of wrenching flats.

00-231-6223

## CHUCK, AIR INFLATING

SINGLE FOOT DESIGN

Threaded external shank.

	UNF
00-684-4343*	1/8-27
00-142-5207	7/16-20
00-142-5164†	7/16-20

\* NPT Thread.

† 90 degree foot angle.

Threaded internal shank.

	UNF
00-277-6948*	1/4-18

\* NPT Thread.

Serrated shank.

	UNF
00-270-3855	1/4 ID Hose

## CLAMP, HOSE

Steel, Composition 301

Band style, Steel CRES nut. Steel bolt, Silver nut. Cadmium bolt. Inside diameter, 13.500 inches nominal. Overall width, 0.750 inches nominal. Self-locking hexagon nut. No rating for temperature.

01-145-4063

Steel, CRES

Steel CRES band and screw. C21 band style.



# CLASS 4730

Inside diameter, 0.625 inches minimum and 1.250 inches maximum. Overall width, 0.310 inches nominal. Slotted hexagon head screw fastening device.

01-093-7447

Passivate overall surface treatment. C13 adjustable band style. Inside diameter, 1.500 inches minimum and 1.609 inches maximum. Overall width, 0.250 inches nominal. Buckle fastening device.

00-996-8258

Steel composition 1065 or Steel composition 1080 overall. C24 wire style. Inside diameter, 0.969 inches minimum and 1.031 inches maximum. Overall width, any acceptable. Spring tension fastening device. SPECIAL FEATURES, used on Grumman Aircraft, Model A10.

00-834-3984

Steel composition 301 band, Steel screw. Surface treatment, Passivate band, Cadmium screw. C7 Band style. Inside diameter, 0.687 inches minimum and 14.125 inches maximum. Overall width, 0.562 inches nominal. Thumb head screw fastening device.

00-833-8668

Steel corrosion resisting overall with Passivate overall surface treatment. C10 Band style. Inside diameter, 2.7294 inches minimum and 2.9481 inches maximum. Overall width, 0.620 inches nominal. Self-locking hexagon nut fastening device. Temperature rating, not rated.

00-684-6266

Steel, corrosion resisting overall. C18 band style. Inside diameter, 3.063 inches nominal. overall width, 0.750 inches nominal. Self-locking hexagon nut fastening device. Temperature rating, 250.0 degrees Fahrenheit.

00-494-9351

Steel Composition 302 band with Steel, Corrosion Resisting Screw. Passivate overall surface treatment. Style C21 band. Inside diameter, 3.250 inches minimum and 4.125 inches maximum. Overall width, 0.625 inches nominal. Plain slotted head screw fastening device. No temperature rating. End Item, A10 aircraft.

00-578-3355

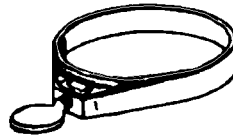
Steel composition 302 band. Steel thumbscrew. Passivate band surface treatment with zinc thumbscrew. C7 band style. Inside diameter, 0.688 inches minimum and 9.125 inches maximum. Overall width, 0.531 inches minimum and 0.578 inches maximum. Thumb head screw fastening device. SPECIAL FEATURES, 2.250 inch long thumbscrew; 0.375 inch wide and 0.020 inch thickness of clamp.

00-488-5907

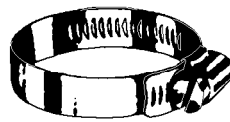
Steel composition 304 band with Steel screw. Zinc screw surface treatment. Style C21 band. Inside diameter, 0.625 inches minimum and 1.500 inches maximum. Overall width, 0.310 inches nominal. Slotted hexagon head screw fastening device.

00-586-8463

THUMB SCREW ADJUSTMENT.



SLOTTED SCREW ADJUSTMENT, WORM TYPE.



TANGENTIAL STYLE.

Steel, Corrosion Resisting. C21 Band style. Inside diameter, 3.000 inches nominal. Any acceptable overall width. Fastening device type, slotted hexagon head screw.

00-241-7651

Steel composition 301 band steel thumbscrew. Surface treatment, Passivate Band, Cadmium thumbscrew. C7 Band style. Inside diameter, 0.688 inches minimum and 2.125 inches maximum. Overall width, 0.500 inches minimum and 0.562 inches maximum. Fastening device type, thumb head screw. SPECIAL FEATURES, thumbgrip drilled 0.070 inch hole, 0.250 inch from center for lockwire.

00-289-3141

Steel Composition 1064 overall. Surface treatment, Paint and Zinc overall. C17 Adjustable band style. Inside diameter, 3.000 inches minimum and 3.125 inches maximum. Overall width, 0.625 inches nominal. Fastening device type, Spring tension. SPECIAL FEATURES, Grumman Aerospace Corporation A10 Aircraft.

00-203-1066

Steel, Corrosion Resisting.

	Min ID	Max ID
00-871-6729	15/64	5/8
00-024-3971*	5/16	7/8
00-908-3195	7/16	25/32
00-720-0167	9/16	15/16
00-877-6298	9/16	1-1/16
00-908-3194	11/16	1-1/4
00-278-2523	3/4	1-3/4
00-908-3193	1	2
00-204-3491*	1-9/16	2-1/2
00-909-8627	1-13/16	2-3/4
01-129-5592*	2-1/2	12-1/4
00-908-6292	2-9/16	3-1/2

	Min ID	Max ID
00-821-0251*	2-9/16	8-19/32
00-277-7132	3-1/8	4-5/64
00-908-6293	3-5/16	4-1/4
00-274-5828*	3-9/16	4-1/2
00-541-8018*	3-7/8	4-3/4
00-908-6294	4	7
00-838-9889*	6-5/8	7-1/2

\* Non Spec Item.

SLOTTED HEXAGON HEAD SCREW ADJUSTMENT, SNAPLOCK SWIVEL ACTION. .551 inches wide.

	Min ID	Max ID
01-211-8445	1/2	3/4
00-720-1274	15/16	2-13/16
00-020-4270	1-3/64	2-9/32
00-132-9948	1-3/64	4
00-880-3539	2	5-3/16
00-617-6921	2	6

THUMB SCREW ADJUSTMENT, WORM TYPE.



Steel, Corrosion Resisting.

	Min ID	Max ID
00-278-9200	7/16	11/16
00-278-9197	1/2	13/16
00-913-7330*	11/16	2-5/8
00-215-8010*	11/16	8-5/8
00-555-1352	13/16	1-3/16
00-203-3129	61/64	1-1/2
00-278-9211	1	1-7/16
00-277-2549*	1-1/16	2
00-277-2550*	1-5/16	2-1/4
00-203-3131	1-21/64	2-1/16
00-726-9346*	1-9/16	2-1/2
00-277-9387	1-5/8	2-1/16
00-278-0422	1-7/8	2-5/16
00-541-7747	1-7/8	2-27/32
00-726-9347*	2-1/16	3
00-278-0417	2-1/8	2-9/16
00-202-8967	2-13/16	4-1/8
00-407-6627*	2-13/32	3-11/32
00-540-4032*	3-1/8	4
00-253-3496	3-9/16	5

\* Non Spec Item.

SLOTTED MACHINE SCREW ADJUSTMENT WITH APPLIED LOCK.



Copper Alloy

	Nom ID
00-278-2546	5/8
00-202-7769	3/4
00-277-5850	1-17/32

# CLASS 4730

Steel, Zinc Plated

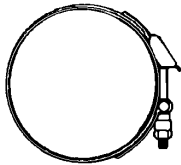
	Min ID	Max ID
00-289-1686	3/8	1/2
01-092-1904	2-11/32	2-19/32

ADJUSTABLE BAND, SPRING TENSION TYPE. Steel, Phosphate or Zinc Coated

	Min ID	Max ID
00-585-8621*	13/16	29/32
00-269-3760	15/16	1-1/4

\* Non Spec Item, painted

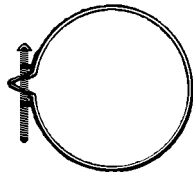
HEXAGON HEAD SCREW ADJUSTMENT. SELF LOCKING NUT.



Steel, Corrosion Resisting. Cadmium or Zinc Plated nut and bolt.

	Nom ID
00-080-5799	3-3/4
01-134-8839	3-7/8
00-045-5278	10

UNIVERSAL BAND CLAMP. Fastened with plain slotted head screw. Procured in flat form including nut and screw. For use in clamping low pressure water hose.



Steel, Corrosion Resisting.

	Min ID/In.	Max ID/In.	W/In.
00-278-2513	1.000	3.000	.500

## CLAMP, MASK, OXYGEN

Steel, corrosion resisting composition 301, 0.250 hard, 3.790 inches long. 0.312 inches wide. 0.020 inches thick. One hooked end 15 degrees off centerline. Four 0.030 inches wide by 0.140 inches long retaining slots. End item 1660 00-810-3225 hose, gas mask.

00-943-3359

## CONNECTOR, MULTIPLE, FLUID PRESSURE

TWO FLUID CONNECTIONS. Threaded, inverted flare, 30 degree seat angle. 3/16 inch outside diameter tube, 3/8-24 UNF-3A thread. Bolt hole diameter .395 inches, with fluid passage. 90 degrees between outlets.

Brass

	Lg/In.	W/In.	Thk/In.
01-122-2172	1.019	1.019	.380

Aluminum Alloy. D16 1 fluid connection style. Overall length, 1.535 inches nominal. Overall width, 0.125 inches nominal. Thickness, 0.250 inches nominal. Bolt hole diameter, 0.437 inches nominal. 1 fluid connection. Connection style, G19 flared. Fluid conveyance type and size for which designed, 0.250 inches outside diameter tube. Threaded at 7/16-20 inch. UNJF, 3A, Right-hand threads. Seat included. Seat angle, 37.0 degrees. Includes bolt hole fluid passage. Does not include bolt hole flats serrations.

01-119-7085

## COUPLING ASSEMBLY, QUICK DISCONNECT

Steel, Corrosion Resisting. Body style, 2 coupling assembly. First leg length, 1.130 inches nominal. Second leg length, 0.548 inches nominal. Maximum operating pressure and media for which designed 200.0 pounds per square inch, any acceptable. Maximum operating temperature and media for which designed, 149.0 degrees Celsius, any acceptable. Overall length, 3.543 inches nominal. First fluid end connection type, threaded, external tube. First end style D6 flared. First end seat angle, 37.0 degrees nominal. First end outside diameter tube accommodated, 0.375 inches nominal. First end threads UNF. First end thread class, 3A. First end nominal thread size, 0.562 inches. Second end relationship with first end, identical. Quick disconnect method, Spring push-lock all ends. SPECIAL FEATURES, with provision for locknut. End Item H-53 helicopter.

00-114-2456

### PUSH-PULL STYLE

Unthreaded external hose, barbed, first end to unthreaded external hose, barbed, second end.

Plastic

	End	ID Hose/In.
00-889-2197	1	1/4
00-931-4610	1	1/4

## COUPLING ASSEMBLY, SELF SEALING.

THREADED EXTERNAL TUBE, FLARELESS, 12 DEGREE SEAT ANGLE. BOTH ENDS IDENTICAL. 3000 PSI. -65 to 273 degrees Fahrenheit.

Aluminum Alloy, Anodized.

	Tube OD/In.	UN
00-815-6491	1/2	1-5/16-12

## COUPLING ASSEMBLY, SELF-SEALING

Steel CRES with Anodized and Passivate surface treatment. Maximum operating pressure, 3000.0 PSI. First fluid end connection type, threaded internal tube. Second end relationship with first end, not identical. Exterior color, green. Self-sealing. SPECIAL FEATURES: Operating pressure: disconnected position 1000 PSIG; connected position 1500 PSIG; Application: hydraulic fluid. Temperature range: minus 65 degrees Fahrenheit to plus 275 degrees Fahrenheit. Mates with coupling half AE80485H, 4730 01-143-1420 flight safety critical. Assembly includes body, retainers, packing, spring, valve stem, valve sleeve, and valve cap. End Item: Mohawk Airplane.

01-095-7013

## COUPLING HALF, QUICK DISCONNECT

Aluminum Alloy with Anodized Surface Treatment

Flared End Style

	UNF	Leg Lg/In.
00-782-8251	7/16	1.336
00-554-7737	3/4	A/A
00-782-7210	7/8	0.781
00-001-0056	7/8	1.391

Aluminum Alloy with Anodized Surface Treatment

Flared End Style

	UN	Leg Lg/In.
00-541-1115	1.062	1.438
00-057-3074	1.625	0.958

Aluminum Alloy with Anodized Surface Treatment

1 coupling half style. First leg length, 0.562 inches nominal. Maximum operating pressure and temperatures are not rated. Overall length, 4.000 inches nominal. First fluid end connection type, threaded external boss. First end style, D7 external seat for gasket seal. UN threads. First end nominal thread size, 3.375 inches. First end thread quantity per inch, 12. First end thread class 2A. Push-pull all ends quick disconnect method. Internal all ends, quick disconnect end connection. SPECIAL FEATURES, plug and wire rope supplied.

00-794-5979

1 coupling half style. First leg length, 0.594 inches nominal. Maximum operating pressure and media for which designed, 3000.0 pounds per square inch, Hydraulic fluid, Petroleum base. Maximum operating temperature and media for which designed, minus 54.0 degrees Celsius, Hydraulic fluid, Petroleum base — 135.0 Degrees Celsius, Hydraulic fluid, Petroleum base. Overall length, 2.000 inches nominal. First fluid end connection type, threaded internal boss. B13 boss gasket seal style. UNJF threads

first end. First end nominal thread size, 0.562 inches. Thread class, 3B. Twist-lock all ends quick disconnect method. Quick disconnect end connection type, external, all ends. Self-sealing.

00-795-5793

1 coupling half style. First leg length, any acceptable. Maximum operating pressure and media for which designed, 3000.0 pounds per square inch, Hydraulic fluid, Petroleum base. Overall length, 2.043 inches minimum and 2.019 inches maximum. First fluid end connection, threaded external tube. First end style, D8 flareless. First end seat angle 12.0 degrees nominal. First end outside diameter tube accommodated, 0.250 inches nominal. UNF first end threads. First end nominal thread size, 0.438 inches. First end thread class, 3A. Quick lead thread all ends quick disconnect method. Self-sealing.

00-819-9162

1 coupling half style. First leg length, 0.958 inches nominal. Maximum operating pressure and media for which designed, 1000.0 pounds per square inch, Hydraulic fluid, Petroleum base. Maximum operating temperature and media for which designed, 71.1 degrees Celsius, Hydraulic fluid, Petroleum base. Overall length, 2.947 inches nominal. First fluid end connection type, threaded external tube. First end style, D6 flared. First end seat angle 37.0 degrees nominal. First end outside diameter tube accommodated 1.250 inches nominal. UN threads First end. First end nominal thread size, 1.625 inches. First end thread quantity per inch, 12. First end thread class, 3A. Quick lead thread all ends quick disconnect method. Quick disconnect end connection type, Internal, all ends. Self-sealing.

00-818-6582

1 coupling half style. First leg length, any acceptable. maximum operating pressure and media for which designed, not rated and no rating for maximum operating temperature and media for which designed. Overall length, 2.468 inches minimum and 2.513 inches maximum. First fluid end connection type, threaded external tube. D8 flareless first end style. with a 37 degree seat angle. First end outside diameter tube accommodated, 0.375 inches nominal. UNF first end threads. First end nominal thread size, 0.562 inches. First end thread class, 3A. Twist-lock all ends quick disconnect method. Quick disconnect end connection type, Internal all ends.

00-818-5062

First leg length, 0.970 inches nominal. Maximum operating pressure and media, 3000.0 PSI Steam, Water, Oil or Gas. No temperature rating. Overall length, 3.335 inches minimum and 3.554 inches maximum. 1st fluid end connection, threaded external tube. D8 flareless style. End seat angle, 12.0 degrees nominal. First end outside diameter, tube accommodated, 0.250 inches nominal. First end threads, UNF, 0.438 inches, 3A. Quick disconnect method, twist-lock all ends. Quick disconnect end connection,

external all ends. Quick disconnect nominal size, 0.984 inches all ends. FEATURES: Safety locking feature Bulkhead threads on fluid end connection.

00-903-4451

Steel, CRES. 1 coupling half body style. No rating for operating pressure or temperature. Overall length, 1.906 inches nominal. Quick disconnect nominal size, 0.750 inches all ends. Self-sealing.

01-130-1276

### CAM-LOCKING STYLE

EXTERNAL, RAISED FLANGE HALF, ROUND WITH OUT BOLT HOLES.

Steel, Corrosion Resisting.

	Raised Face Ht/In.	Dia/In.	Flange OD/In.
00-961-1973	0.156	3.625	4.500

THREADED EXTERNAL PIPE, PLAIN. SELF SEALING.

Steel, Corrosion Resisting.

	NPTF	Leg Lg/In.
01-162-4128	1/4-18	1.062

### PUSH-LOCK STYLE

THREADED EXTERNAL PIPE PLAIN ENDS. .250 INCH QUICK DISCONNECT SIZE. NPT thread series and 1.938 inches long.

Copper Alloy

	Thread Size	Leg Lg/In.
00-148-4905	1/4	.438

THREADED INTERNAL BOSS, GASKET SEAL. 0.625 INCHES QUICK DISCONNECT SIZE.

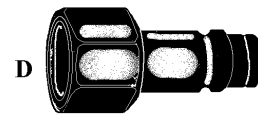
Steel, Cadmium Plated.

	Thread Size	Leg Lg/In.
00-152-2432	1-1/16-8	.969

THREADED INTERNAL TUBE. 37 degree seat angle flare. External second end. 1.625 inches long.

	UNF Thread	Leg Lg/In.
01-009-9520	1/4	.611

REFERENCE LETTERS A TO F REFER TO THE FOLLOWING ILLUSTRATION.



### PUSH PULL STYLE

PSI NOT RATED. INTERNAL COUPLING HALF.

Aluminum Alloy

	End Style
01-124-3766	3/4 external tube, 12 degree flareless, 9/16 UNJF
00-238-5350	1 external tube, flared 3/4 UNF

Copper Alloy

	End Style	Ref
00-203-0177	External pipe, 1/2 NPT	B

Aluminum Alloy with Anodized surface treatment. 1 coupling half, body style. First leg length, 0.500 inches nominal. Maximum operating pressure not rated. Maximum operating temperature and media for which designed, 160.0 degrees Fahrenheit, Gas. First fluid end connection type, unthreaded external hose. First end style E6 beaded. First end inside diameter hose accommodated 0.375 inches nominal. Push-pull all ends quick disconnect method. Internal all ends quick disconnect end connection type. End Item A-6E and F-14A Aircraft

00-234-0087

Copper Alloy.

	End Style	Ref
00-759-2975	1-1/2 external pipe, ANPT	E

Plastic

	End Style
01-180-7251	Unthreaded external hose, beaded, one end and internal self sealing other end

Steel, Corrosion Resisting. 37 degree seat angle.

# CLASS 4730

End Style  
00-052-3423\* 1 external tube, flare thread  
3/4 UNF  
\* 12 degree seat angle.

Steel, Corrosion Resisting, 1 coupling half quick disconnect. First leg length, any acceptable. Maximum operating pressure and media for which designed 1600.0 pounds per square inch, any acceptable. Maximum operating temperature and media for which designed not rated. Overall length, 1.906 inches nominal. First fluid end connection type , threaded internal boss. First end style designator, B13 boss gasket seal. First end thread series, UNF. First end nominal thread size, 0.438 inches. First end thread class, 2B. Quick disconnect method, push-lock all ends. Quick disconnect end connection type, Internal all ends. Features: Safety locking feature and self-sealing.

00-052-0350

Steel, Zinc Plated

	End Style	Ref
00-142-1958	1/4 external pipe, ANPT	E
00-142-1960	1/4 internal pipe, NPT	D

40 PSI. INTERNAL COUPLING HALF, SELF SEALING. Hydraulic fluid.

Aluminum Alloy

	End Style	Ref
00-080-3090*	1/2 external tube, flareless thread, 7/16 UNJF	
* 12 degree seat angle.		

100 PSI, INTERNAL COUPLING HALF. Any acceptable body material.

Zinc Plated

	End Style	Ref
00-766-9028	1/4 internal pipe, NPTF	A

150 PSI, INTERNAL COUPLING HALF, Self sealing. Low capacity air.

Copper Alloy

	End Style	Ref
00-293-7184	1/4 external hose, barbed	C
00-494-0904	1/4 external pipe, NPT	B
00-494-3273	1/4 internal pipe, NPT	A
00-494-3272	3/8 external hose, barbed	C
00-289-8192	3/8 internal pipe, NPT	A
00-203-0178	3/8 external pipe, NPT	B
00-369-4692*	3/8 external pipe, NPT	B
* High capacity air.		

Steel

	End Style	Ref
01-177-0987	1/4 internal pipe NPTF	A

150 PSI. EXTERNAL COUPLING HALF. Low capacity air.

Steel, Cadmium Plated

	End Style	Ref
00-277-5678	1/4 external hose, barbed	F
00-489-6303	1/4 internal pipe, NPT	D
00-494-3271	1/4 external pipe, NPT	E
00-277-5679	3/8 external hose, barbed	F
00-293-7182	3/8 external pipe, NPT	E

250 PSI, INTERNAL COUPLING HALF, SELF SEALING.

Steel, Passivated

	End Style	Ref
00-435-4268*	1/2 external tube, flareless thread 7/16	UNF
* 20 degree seat angle.		

300 PSI. EXTERNAL COUPLING HALF.

Steel

	End Style	Ref
01-103-7295	1/8 external pipe, NPT	E
00-595-2943*	1/2 internal pipe, NPT	D
* Steel, Cadmium Plated		

1000 PSI. EXTERNAL COUPLING HALF.

Aluminum Alloy

	End Style	Ref
00-067-7650*	1-1/4 external tube, flared thread 7/8 UNF	
01-123-3836†	2 external tube, flareless thread 1-5/16 UNJ	
* 37 degree seat angle.		
† 12 degree seat angle.		

1500 PSI. INTERNAL COUPLING HALF.

Steel, Cadmium Plated

	End Style	Ref
00-293-7165	1/2 external pipe, NPT	E
00-928-4506	1/2 internal pipe, NPT	D
00-608-2590	3/4 external hose, barbed	F

3000 PSI. INTERNAL COUPLING HALF, SELF SEALING. 37 degree seat angle.

Aluminum Alloy

	End Style	Ref
00-720-0890	3/4 external tube, flared thread, 9/16 UNF	

10,000 PSI, WOG. EXTERNAL COUPLING HALF.

Steel, Corrosion Resisting

	End Style	Ref
00-722-3461	1/4 external pipe, NPT	E

## PUSH-PULL TO FLANGE TYPE

60 PSI, FUEL. EXTERNAL COUPLING HALF TO ROUND PLAIN FACE FLANGE. All dimensions given in inches.

6 BOLT HOLES

Aluminum Alloy

	Flange OD	Bolt Hole	Bolt Cir Dia
00-892-6270	4.531	.328	3.812

## QUICK LEAD THREAD STYLE

3,000 PSI, HYDRAULIC FLUID. INTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style	Ref
00-540-1268*†	1-1/2 external tube, flared thread-1/16 UNJ	
* 37 degree seat angle.		
† Coupling half is Blue, nut is Red.		

3,000 PSI, HYDRAULIC FLUID. EXTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style	Ref
00-720-4464*	1/2 external tube, flared thread 7/16 UNJF	
00-585-0469*	1-1/2 external tube, flared thread 1-1/16 UN	
* 37 degree seat angle.		

## SPRING PUSH-LOCK STYLE

PSI NOT RATED. EXTERNAL COUPLING HALF.

Steel, Corrosion Resisting

	End Style	Ref
01-116-3735	1-1/2 external pipe, ANPT	

500 PSI, FUEL/OIL, HYDROCARBON. EXTERNAL COUPLING HALF. Safety locking feature and self sealing.

Steel, Composition, Passivated

	End Style	Ref
01-017-8313	1-1/2 internal hose, threaded NPSH thread	
01-116-3734	1-1/2 external pipe, ANPT	

500 PSI, FUEL/OIL, HYDROCARBON. INTERNAL COUPLING HALF. Safety locking feature and self sealing.

Aluminum Alloy, Anodized or Steel, Corrosion Resisting.

	End Style	Ref
00-600-1762*	1-1/2 external tube, flared thread 1-1/16 UN	
* 37 degree seat angle.		

Steel, Composition, Passivated.

	End Style	Ref
01-015-7518*	1-1/4 external tube, flared thread size 1.625 UNJ	
* 37 degree seat angle.		

## SPRING PUSH-PULL STYLE

PSI NOT RATED. External coupling half.

Steel Composition, Passivated.

End Style  
01-162-0139\* 1-1/2 external tube, flareless  
thread 1-1/16 UNJ  
\* 12 degree seat angle.

PSI NOT RATED. Internal coupling half.

Copper Alloy

End Style  
00-477-6602\* 5/8 external tube, flared  
thread 1/2 UNF  
\* 37 degree seat angle.

Steel Composition, Passivated

End Style  
01-160-5794\* 3/4 external tube, flareless  
thread 9/16 UNJF  
01-160-5795\* 1 external tube, flareless  
thread 3/4 UNJF  
\* 12 degree seat angle.

250 PSI EXTERNAL HOSE COUPLING HALF  
BARBED or SERRATED. Hydraulic fluid and  
water.

Copper Alloy

End Style  
00-277-5676 3/4 inch hose connection

300 PSI. INTERNAL COUPLING HALF. SELF  
SEALING. Water, oil, gas, hydraulic fluid,  
petroleum base.

Copper Alloy, Chromium Treated

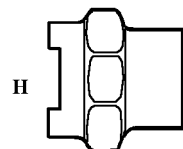
End Style  
00-990-5555 1/2 internal pipe, NPT

1500 PSI. INTERNAL COUPLING HALF,  
SAFETY LOCKING FEATURE.

Copper Alloy

End Style  
00-608-2589 3/4 external hose, barbed

REFERENCE LETTERS, G TO K REFER TO  
THE FOLLOWING ILLUSTRATION:



## TWIST-LOCK STYLE

PSI NOT RATED. EXTERNAL COUPLING  
HALF.

Any Acceptable Material

End Style  
00-766-9029 1/4 ext pipe, NPTF

Copper Alloy.

End Style Ref  
00-277-6159 7/16 external hose, J  
barbed  
00-289-4242 1/2 external pipe, NPT K

PSI NOT RATED. INTERNAL COUPLING HALF.

Aluminum Alloy, Anodized

End Style  
00-818-9948\* 1-1/2 external tube, E  
flareless thread 1-1/16 UN  
\* 12 degree seat angle.

Copper Alloy.

End Style Ref  
00-289-4240 7/16 external hose, G  
barbed  
00-289-4247 1/2 external hose, barbed G  
00-277-5680 1/2 external pipe, NPT H  
00-289-4241 5/8 external hose, barbed G

70 PSI. EXTERNAL COUPLING HALF, SAFETY  
LOCKING AND SELF SEALING FEATURE.

Steel

End Style Ref  
00-755-7237 1/8 external pipe K

70 PSI. INTERNAL COUPLING HALF, SAFETY  
LOCKING AND SELF SEALING FEATURE. 37  
degree seat angle.

Steel, Corrosion Resisting

End Style  
00-630-0310 5/8 external tube, flared  
thread 1/2 UNF

500 PSI. EXTERNAL COUPLING HALF,  
SAFETY LOCKING AND SELF SEALING  
FEATURE. 37.5 degree seat angle.

Aluminum Alloy

End Style  
00-825-3021 1/2 external tube, flared  
thread 7/16 UNF

500 PSI. INTERNAL COUPLING HALF, SELF  
SEALING. 37 degree seat angle.

Aluminum Alloy, Anodized

End Style  
00-684-0738\* 1/2 external tube, flared  
thread 7/16 UNF

End Style

\* Color coded, union nut and body Yellow,  
adapter Blue, and union nut sleeve  
orange.

1500 PSI. INTERNAL COUPLING HALF, SELF  
SEALING.

Aluminum Alloy, Anodized

End Style  
00-071-8244\* 1-1/4 external tube, flared  
thread 7/8 UNF  
\* 37 degree seat angle.

3000 PSI. EXTERNAL COUPLING HALF, SELF  
SEALING.

Aluminum Alloy, Anodized

End Style  
00-756-1943† 3/4 external tube, flareless  
thread 9/16 UNF  
00-842-0067\* 1-1/2 external tube, flared  
thread 1-1/16 UN  
00-842-0065\* 2 external tube, flared  
thread 1-5/16 UN  
00-826-3897\* 2 external tube, flared  
thread 1-5/16 UNJ  
00-880-7011† 2 external tube, flareless  
thread 1-5/16 UN  
00-090-0465 2 external tube, flareless  
thread 1-5/16 UNJ  
\* 37 degree seat angle.  
† 12 degree seat angle.

Steel, Corrosion Resisting

End Style  
00-729-5736\* 1-1/2 external tube, flared  
thread 1-1/16 UN  
\* 37 degree seat angle.

3000 PSI, HYDRAULIC FLUID. INTERNAL  
COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

End Style  
00-684-6551\* 3/4 external tube, flared  
thread 9/16 UNJF  
00-818-9947† 1-1/4 external tube,  
flareless thread 7/8 UNF  
\* 37 degree seat angle.  
† 12 degree seat angle.

COUPLING HALF, SELF SEALING.

THREADED EXTERNAL TUBE, FLARED. 37  
degree seat angle.

3000 PSI.

Aluminum Alloy, Anodized

OD/In. Thd UN Lg/In.  
00-062-1291 2.000 1-5/16 4.352

THREADED EXTERNAL TUBE, FLARELESS.  
12 degree seat angle.

225 PSI.

Steel, Nickel Plated

# CLASS 4730

	OD/In.	Thd UN	Lg/In.
00-006-7906	1-1/2	1-1/16	3.070

3000 PSI.

Aluminum Alloy, Anodized

	OD/In.	Thd UN	Lg/In.
00-936-2174*	3/4	9/16	2.040

\* UNF Thread.

Steel, Corrosion Resisting

	OD/In.	Thd UN	Lg/In.
00-936-2173*	3/4	9/16	2.800

\* UNF Thread.

THREADED INTERNAL PIPE, PLAIN.  
Furnished with cap and chain.

Steel, Oxide Coated

	Thd	Lg
00-376-5619	3/8 NPTF	1.873

## COUPLING HALF, SELF-SEALING

Steel. 1 coupling half style. First leg length, 0.570 inches nominal. No rating for operating pressure or temperature. Overall length, 1.695 inches nominal. First fluid end connection type, Threaded external tube, D8 flareless style. First end seat angle, 12.0 degrees nominal. First end outside diameter tube accommodated, 0.375 inches nominal. UNJF threads at 0.625 inches and 3A thread class.

01-092-8095

## COUPLING PIPE

PLAIN WITH FLAT SIDES. THREADED INTERNAL NPT THREADS. BOTH ENDS IDENTICAL.



Copper Alloy. 125 PSI steam.

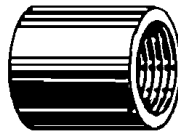
	Thd Size	O/A Lg
00-187-7648	3/8-18	1-3/64
00-278-2648	1/2-14	1-23/64
00-203-8347	3/4-14	1-1/2
00-187-7651	1--11-1/2	1-11/16
00-187-7652	1-1/4--11-1/2	1-55/64
00-203-8350	1-1/2--11-1/2	1-59/64
00-187-7654	2--11-1/2	2-3/16

Malleable Iron; Zinc Coated. 150 PSI steam.

	Thd Size	O/A Lg
00-187-7609	1/8-27	61/64
00-187-7612	1/2-14	1-11/32
00-187-7613	3/4-14	1-33/64
00-187-7614	1-11-1/2	1-3/4
00-187-7616	1-1/2-11-1/2	2-5/32
00-187-7617	2-11-1/2	2-17/32

	Thd Size	O/A Lg
00-187-7618	2-1/2-8	2-7/8

THREADED INTERNAL NPT THREADS. BOTH ENDS IDENTICAL. PLAIN SIDES.



Copper Alloy, 125 PSI steam.

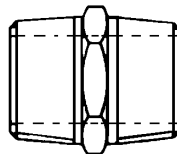
	Thd Size	Lg
00-203-8338	1/8-27	53/64

Steel. 3000 PSI Water Oil Gas.

	Thd Size	Lg
00-187-7568	1/4-18	1-3/8
00-202-9915*	1/4-18	1-3/4
00-187-7570	1/2-14	1-7/8
00-187-7571	3/4-14	2

\* Zinc Coated

THREADED INTERNAL, RIGID, SHORT CENTER WRENCHING FACILITY.



Copper Alloy.

	Thd Size	Lg
00-223-9255	1/4 ANPT	1-1/8

Steel, Cadmium Plated.

	Thd Size	Lg
00-580-7408	1/4 NPTF	1-1/8

UNTHREADED INTERNAL SOCKET TYPE. BOTH ENDS IDENTICAL. For use with standard plastic pipe.



Plastic

	Pipe Size	O/A Lg
00-554-7126	1-1/4	2-3/4

Nickel Alloy. Non Spec Item.

	Pipe Size	O/A Lg
00-957-7882	1	1-3/4

Steel (3000 PSI)

	Pipe Size	O/A Lg
00-822-7655	1/4	1
00-822-7656	3/8	1
00-822-7657	1/2	1-3/8
01-114-3884	3/4	1-1/2
00-808-7920*	1	1-3/4
00-822-6537	1-1/4	1-7/8
00-822-6539	2	2-1/2

\* PSI not rated.

Steel, Corrosion Resisting (3000 PSI).

	Pipe Size	O/A Lg
01-067-3933	1/2	1-3/8
00-892-5663*	1	1-3/4
01-106-0796	1-1/2	2

\* PSI not rated.

UNTHREADED INTERNAL SOCKET WITH BRAZING RING. BOTH ENDS IDENTICAL.

Copper Alloy

	Pipe Size	O/A Lg
00-289-8493	2-3/8	3.620

INTERIOR STREAMLINED FROM SOCKET TO SOCKET, GROOVED. With separately packaged brazing rings.



Copper Alloy.

	Pipe Size	Lg
00-542-5100	1/4	0.970
00-542-5101	3/8	1.050
00-542-5102	1/2	1.290
00-542-5103	3/4	1.438
00-542-5104	1	1.680
00-542-5105	1-1/4	1.875
00-542-5106	1-1/2	1-15/16
00-542-5107	2	2.203
00-542-5108	2-1/2	2.880
00-542-5109	3	3.180
00-542-5110	4	3.430
00-542-5111	4	3.690
00-542-5112	5	4.220

## COUPLING, TUBE

TITANIUM ALLOY OVERALL. THREADED INTERNAL TUBE 1ST END, UNTHREADED INTERNAL TUBE 2ND END.

	Tube OD	Thd Size	Lg
01-355-3251	0.250	0.438 UNJS	1.451
01-356-2647	0.375	0.562 UNJS	1.401

TITANIUM ALLOY OVERALL. UNTHREADED INTERNAL TUBE ALL ENDS.

	Tube OD/In.	Lg/In.
01-355-3245†	0.500	2.275
01-355-5901*	1.000	3.396

\* Swaged with grooves all ends

Tube OD/In. Lg/In.  
 † Plain with center groove

THREADED EXTERNAL TUBE 1ST END, UNTHREADED EXTERNAL TUBE 2ND END. FLARED 1ST END CONNECTION STYLE AND PLAIN SECOND END. RIGID, SHORT CENTER WRENCHING FACILITY. Copper Alloy overall. 37.0 degree seat angle. Nominal outside diameter tube accommodated, 0.250 inches 1st end. 0.250 inches 2nd end. UNF threads 1st end. Nominal thread size, 0.438 inches 1st end. Thread class, 3A 1st end. Nominal overall length, 1.406 inches. SPECIAL FEATURES, supports Grumman A10 Aircraft.

00-827-5897

THREADED INTERNAL TUBE 1ST END, UNTHREADED INTERNAL TUBE 2ND END. SWIVEL NUT FLARELESS 1ST END AND SOCKET 2ND END CONNECTION STYLE. Titanium Alloy overall. Style designator, A5 rigid, short center wrenching facility. Seat angle, 8.5 degrees 1st end. Nominal outside diameter tube accommodated, 0.375 inches all ends. Thread series, UNJS 1st end. Thread size, 0.562 inches 1st end. Thread quantity, 20, 1st end. Thread class, 3B 1st end. Nominal overall length, 1.066 inches. SPECIAL FEATURES: Aircraft application.

00-279-2716

THREADED INTERNAL TUBE 1ST END, UNTHREADED INTERNAL TUBE 2ND END. SWIVEL NUT, FLARELESS 1ST END AND SOCKET 2ND END CONNECTION STYLE. Titanium Alloy overall. Style designator, A5 rigid, short center wrenching facility. Seat angle, 8.5 degrees 1st end. Nominal outside diameter tube accommodated 0.250 inches 1st end and 0.250 inches 2nd end. Thread series, NGO 1st end. Nominal thread size, 0.438 inches 1st end. Thread quantity per inch, 24 1st end. Thread class, 3B 1st end. Nominal overall length, 1.013 inches. SPECIAL FEATURES: Normal operating range is 3000 to 8000 PSI and burst range is 12000 PSI. End Item, F-16 and F-18 Aircraft.

00-283-6397

THREADED INTERNAL TUBE, SWIVEL NUT, FLARE TO UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. RIGID WITH OFFSET WRENCHING FACILITY. The internal surface of the swaged end will be polytetrafluoroethylene coated into the fitting bore. 8.5 degree seat angle.

Steel, Corrosion Resisting. Plastic Coated Overall.

	Tube OD*	Thd Size	Lg
00-348-8176	7/16	3/8-28 UNJ	1.620
00-348-8177	1/2	7/16-24 UNJS	1.810
00-348-8178	3/4	9/16-20 UNJ	1.950
00-348-8179	1	3/4-20 UNJ	2.510
00-348-8180	1-1/4	7/8-16 UNF	2.645
00-348-8203	1-1/2	1-1/16-16 UNJ	2.710

\* Both ends.

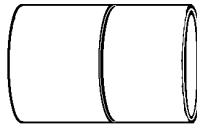
THREADED INTERNAL TUBE, SWIVEL NUT WITH LOOSE OR INTEGRAL CLINCH SLEEVE, 20 DEGREE SEAT ANGLE TO THREADED INTERNAL TUBE, SWIVEL NUT, FLARE, 37 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting.

	Tube OD*	Thd Size	Lg
00-977-3255	1/2	7/16-24 UNF	1.234

\* Both ends.

UNTHREADED INTERNAL TUBE, CRIMPED. SILVER BRAZING SOCKET TYPE WITH ROLLED TYPE STOP. For use in refrigeration equipment.



Copper or Copper Alloy.

	Tube OD/In.
00-264-9151	1/2
00-264-9153	3/4
00-264-9154	1
00-264-9155	1-1/4
00-264-9156	1-1/2
00-264-9157	1-3/4
00-264-9158	2-1/4

UNTHREADED INTERNAL TUBE, PLAIN WITH TAPERED ENDS. BOTH ENDS IDENTICAL.

Copper Alloy

	Tube OD/In.	Lg/In.
00-372-0793	2-13/16	5.000

UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. TAPERED ENDS. The internal surface of the swaged end, will be polytetrafluoroethylene coated into the fitting bore.

Steel, Corrosion Resisting.

	Tube OD/In.	Lg/In.
00-008-9853	3/8	1.250
00-008-9854	1/2	1.535
00-009-5217*	3/4	1.198
00-008-8818	3/4	1.685
00-009-7238*	1	1.770
00-009-3386	1	2.700
00-172-3540	1-1/4	1.777
00-008-9855	1-1/4	2.773
00-172-3544	1-1/2	1.877
00-008-9856	1-1/2	2.913
00-008-9857	2	3.202

\* Socket one end.

Steel, Corrosion Resisting. Passivate surface treatment. Maximum operating pressure, 3000.0 PSI. Maximum operating temperature, 275.0 degrees Fahrenheit.

Swaged and threaded external style. Unthreaded internal tube first end and threaded external tube second end.

	Tube OD/In.	Lg/In.
00-001-3954	9/16	2.437
00-001-0008	1/2	2.332
00-001-0009	3/4	2.460

## CUP, GREASE

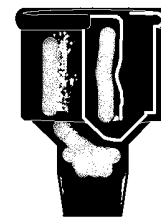
AUTOMATIC, SELF LOCKING WITH LEATHER WASHER. External pipe threads, capacity 0.300 ounces.



Copper Alloy

	Thd NPT	Lg/In.
00-256-3843	1/4 18	4.250

STRAIGHT CAP FEED, LIGHT DUTY USE. Provided with knurled edge and a cover locking spring to prevent cover being shaken loose by vibration.



Copper, Alloy

	Size Oz	Thd NPT	H/In.
00-190-5570	1	1/4-18	2.500
00-190-5568	3	1/8-27	1.875

Steel, Cadmium Plated. Any acceptable capacity. .500 inch long shank, 1.250 inch Height, and 3/8 UNF thread size.

01-057-1985

Steel Zinc Plated. .250 ounce capacity. Any acceptable shank length, 2.375 inch height, and 1/8 NPT thread size.

01-180-6064

## DISCONNECT, FILTERED

100 micron filtration; operating pressure 30 form 5 PSI with peaks of 150 PSI; 1 GPM at 5 PSI pressure differential. End Item: Aircraft model CH-53-E.

01-129-3635

# CLASS 4730

## ELBOW, BOSS

Aluminum Alloy 2014 overall. Anodized overall surface treatment. Threaded internal boss connection all ends. B9 gasket seal connection all ends. UNJF threads all ends. Nominal thread size, 3B all ends. Leg length, 1.156 inches nominal all ends. Flow angle 90.0 degrees.

00-277-2459

Aluminum Alloy overall. Anodized overall surface treatment. Threaded internal boss connection all ends. B9 gasket seal connection all ends. UNJ threads all ends. Nominal thread size, 1.062 inches all ends. Thread quantity per inch 12 all ends. 3B thread class all ends. Leg length 1.359 inches nominal all ends. Flow angle 90.0 degrees. End Item Airplane utility, U-21 (Beech) Airplane, Reconnaissance, utility RU-21 (Beech).

00-277-2461

## ELBOW, FLANGE

Aluminum Alloy overall. Flanged connection all ends. Flange shape, round with holes all ends. Bolt hole quantity, 6 all ends.

01-202-0004

## ELBOW, HOSE

UNTHREADED INTERNAL HOSE, SOCKET ENDS, BOTH ENDS IDENTICAL. 90 DEGREE FLOW ANGLE.

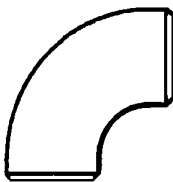
Synthetic Rubber. Inside diameter, 1.625 inches. Outside diameter, 2.000 inches. Length, 2.312 inches.

01-073-6062

## ELBOW, PIPE

BUTT WELD PIPE, BEVELED. BOTH ENDS IDENTICAL.

90 degree elbow. 600 PSI, steam. 750 PSI, WOG.



Steel

	Pipe Size/In.	Leg Lg/In.
01-031-5900	1	1-1/2
00-249-3957	3	4-1/2
00-249-3959	4	6
00-249-3961	5	7-1/2

Plastic Polyvinyl Chloride overall. For hydraulic fluid single response media. 400 PSI. Maximum operating temperature, 23.0 Celsius.

UNTHREADED INTERNAL PIPE ALL ENDS. 90 degree elbow.

	Pipe Size/In.	Leg Lg/In.
00-001-7740	2.000	2.625

THREADED INTERNAL PIPE. Generally used for saturated steam service with pressure up to 125 PSI. For gas and liquid up to 175 PSI not to exceed 150 degrees Fahrenheit.

45 degree elbow.

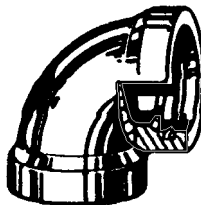


Copper Alloy

	NPT	Leg Lg/In.
00-221-4993	1/4	0.560
00-221-4994*	3/8	0.630
00-249-3873	3/4	0.890
00-806-7968	1-1/2	1.300

\* PSI not rated.

90 degree elbow.



Copper Alloy

	NPT	Leg Lg/In.
00-249-3882	1/8	0.540
00-277-5542	1/4	0.719
00-277-5543	3/8	0.830
00-249-3885	1/2	1.010
00-253-5751	3/4	1.180
00-221-6231	1	1.430
00-221-5012	1-1/4	1.690
00-249-3890	2	2.102

THREADED INTERNAL PIPE. For steam service up to 150 PSI, with temperature not to exceed 500 degrees Fahrenheit. WOG and shock pressures up to 300 PSI with temperature, not to exceed 150 degrees Fahrenheit.

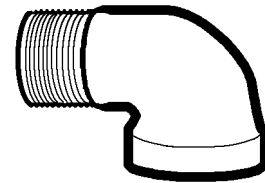
90 degree elbow.

Malleable Iron, Black

	NPT	Leg Lg/In.
00-249-3917	1/2	1.120
00-249-3921	1-1/2	1.940

THREADED INTERNAL TO THREADED

EXTERNAL. For use in all types of fluid systems. Dimensions listed in inches.



90 degree elbow.

Aluminum Alloy, Anodized

	ANTP	Leg Lg/Int/In.	Leg Lg/Ext/In.
00-111-7785	1/8 to 3/8	0.437	0.890

Copper Alloy

	NPTF	Leg Lg/Int/In.	Leg Lg/Ext/In.
00-278-4824	1/4 to 1/4	.891	.219

Steel, Corrosion Resisting. Non Spec. Brass adapter on external end.

	NPSM	Leg Lg/Int/In.	Leg Lg/Ext/In.
01-026-7466	3/8 to 3/8	.810	1.030

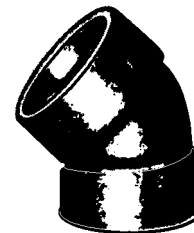
THREADED INTERNAL TO THREADED EXTERNAL. For use in saturated steam service, pressure up to 125 PSI at corresponding temperature. For gas and liquid up to 175 PSI not to exceed 150 degrees Fahrenheit.

90 DEGREE ELBOW

Copper Alloy

	NPT	Leg Lg/Int/In.	Leg Lg/Ext/In.
00-277-5553	1/4 to 1/4	0.710	1.110
00-277-5546	1-1/2 to 1-1/2	1.840	2.460

UNTHREADED INTERNAL PIPE FITTINGS.



45 DEGREE ELBOW.

200 PSI WOG.

Copper Alloy

	Pipe Size	Leg Lg/In.
00-542-5221	3/8	.630
00-542-5222	1/2	.780
00-542-5223	3/4	.890
00-542-5224	1	1.060
00-542-5225	1-1/4	1.220



	Pipe Size	Leg Lg/In.
00-542-5226	1-1/2	1.300
00-542-5227	2	1.450
00-542-5228	2-1/2	1.950
00-542-5229	3	2.170
00-542-5231	4	2.610
00-542-5232	5	3.050

Steel. 600 PSI steam WP.

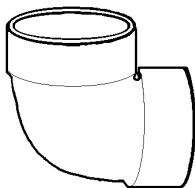
	Pipe Size	Leg Lg/In.
00-249-3968	1/2	.812
00-822-9120*	1/2	.875
00-249-3969	3/4	1.000
00-249-3970	1-1/4	1.188
00-249-3972	1-1/2	1.312
00-249-3973	2	1.625

\* PSI not rated.

Steel. 1500 PSI steam WP.

	Pipe Size	Leg Lg/In.
00-595-3978	1/2	.796

90 DEGREE ELBOW, with brazing rings. 200 PSI WOG.



Copper Alloy

	Pipe Size	Leg Lg/In.
00-542-5164	1/4	.710
00-542-5141	3/8	.820
00-542-5142	1/2	1.010
00-542-5143	3/4	1.180
00-542-5144	1	1.430
00-542-5155*	1	2.310
00-542-5145	1-1/4	1.690
00-542-5146	1-1/2	1.840
00-542-5148	2-1/2	2.700
00-542-5149	3	3.080
00-542-5151	3-1/2	3.420
00-542-5152	4	3.790
00-542-5153*	5	8.130
00-542-5154	6	5.130

\* Long turn (long leg length).

Plastic, Polyvinyl Chloride for potable cold water.

	Pipe Size	Leg Lg/In.
00-144-4948	1	1.875

Steel, 600 PSI steam WP.

	Pipe Size	Leg Lg/In.
00-249-3974	1/4	.812
00-249-3976	1/2	1.000
00-249-3977	3/4	1.250
00-249-3978	1	1.562
00-249-3979	1-1/4	1.562
00-249-3980	1-1/2	1.750
00-249-3981	2	2.125

Steel. 1500 PSI, steam WP.

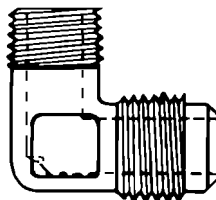
	Pipe Size	Leg Lg/In.
00-595-3986	1/2	1.000
00-595-3987	3/4	1.250
00-595-3988	1	1.375

Steel. 3000 PSI, steam WP.

	Pipe Size	Leg Lg/In.
00-088-8803	1/4	.812
00-088-8805	1/2	1.125
00-088-8807	3/4	1.132
00-833-0289	1	1.500
00-833-0291	1-1/2	2.000
00-083-8773	2	2.125
00-507-0005	2	2.380

## ELBOW, PIPE TO TUBE

THREADED EXTERNAL PIPE TO THREADED EXTERNAL TUBE, FLARED. 90 degree elbow. 37 degree seat angle.



	NPTF	UNF	Tube OD/In.
00-186-9963	1/4	7/16-20	1/2

Steel, Cadmium Plated. 37 degree seat angle.

	NPTF	UNF	Tube OD/In.
00-231-4009	1/8	7/16-20	1/2
00-231-4010	1/4	7/16-20	1/2

Steel, Corrosion Resisting. 37 degree seat angle.

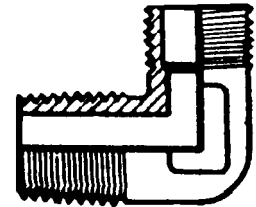
	NPTF	UNF	Tube OD/In.
00-799-6002	1/4	7/16-20	1/2

Copper Alloy. 45 degree seat angle.

	NPTF	UNF	Tube OD/In.
00-254-6211	1/8	7/16-20	1/4
00-254-6225*	1/4	7/16-20	1/2
00-902-8991	1/4	5/8-18	3/4
00-235-1482	3/8	7/16-20	1/2
00-254-6228	3/8	5/8-18	3/4

\* Non Spec Item.

THREADED EXTERNAL PIPE TO THREADED EXTERNAL TUBE, COMPRESSION TYPE. 90 degree elbow, .063 inch seat radius.

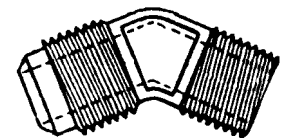


Copper Alloy

	NPTF	UNEF	Tube OD/In.
00-263-4983	1/4	9/16-24	3/4
01-228-0984*	1/4	9/16-24	3/4

\* NPT, UNF.

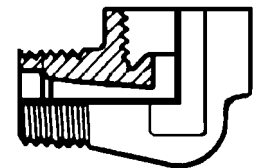
THREADED MALE PIPE TO THREADED MALE TUBE, FLARED. 45 degree elbow. 37 degree seat angle.



Aluminum Alloy, Anodized

	NPT	UNJF	Tube OD/In.
00-186-9980	1/8	1/2-20	5/8

THREADED EXTERNAL PIPE TO UNTHREADED INTERNAL TUBE, INVERTED FLARE.



90 degree elbow. 42 degree seat angle.

Copper Alloy

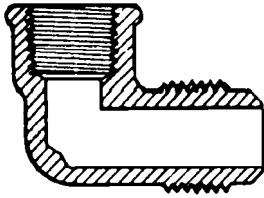
	NPTF	UNF	Tube OD/In.
00-277-8269	1/8	3/8-24	1/2
01-043-5999*	1/8	7/16-24	1/2
00-640-1051	1/8	1/2-20	5/8
00-842-3162	1/4	1/2-20	5/8
00-780-5223†	1/4	1/2-20	5/8
00-277-8270	1/4	1/2-20	5/8
00-277-8274	1/4	5/8-18	3/4
00-221-6215	3/8	3/4-18	1

\* UNS Tube end.

† NPT Pipe end.

THREADED INTERNAL PIPE TO THREADED EXTERNAL TUBE, flared.

# CLASS 4730



90 DEGREE ELBOW. 37 degree seat angle.

	NPTF	UNF	Tube OD/In.
00-263-4978*	1/8	7/16-20	1/2

\* Non Spec Item.

45 degree seat angle.

	NPT	UNF	Tube OD/In.
00-250-7927*	1/4	7/16-20	1/2

\* Non Spec Item.

THREADED EXTERNAL PIPE TO THREADED EXTERNAL TUBE, FLARELESS.

90 degree elbow. 20 degree seat angle.

Steel, Corrosion Resisting

	NPT	UNF	Tube OD/In.
00-490-6257	1/4	7/16-20	1/4

## ELBOW, SWIVEL FLANGE TO TUBE

12.0 degree seat angle 1st end. Nominal outside diameter tube accommodated, 0.250 inches 1st end. UNJF threads 1st end at 0.437 inches. 3A threads 1st end. Leg length, 0.470 inches nominal all ends.

01-136-1339

## ELBOW, TUBE

Aluminum Alloy overall. Threaded internal tube 1st end and unthreaded external tube 2nd end. B3 swivel nut, flare 1st end and B100A plain 2nd end connection style. 37.0 degree seat angle. Nominal outside diameter tube accommodated, 0.750 inches 1st and 2nd ends. UNJ threads 1st end. Nominal thread size, 1.062 inches 1st end. Thread quantity per inch, 12 and 3B thread class, 1st end. Tubing wall nominal thickness, 0.082 inches 2nd end. Leg length, 2.566 inches nominal 1st end and 1.270 inches nominal 2nd end. 123.0 degree flow angle.

01-032-0082

Plastic Polyamide overall. Connection type, threaded external tube all ends. Style, B66 flareless all ends. 20.0 degree seat angle. Nominal outside diameter tube accommodated, 0.250 inches all ends. UNF threads all ends. Nominal thread size, 0.438 inches all ends. 2A thread class all ends. Leg length, 0.719 inches nominal all ends. 90.0 degree flow angle. Includes 2 tube coupling nuts with sleeves. SPECIAL FEATURES: Weapon System

Essential. End Item: F/A-18, F-14 Aircraft.

00-982-2481

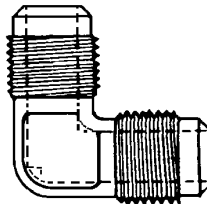
Plastic Polyamide overall. Connection type, threaded external tube all ends. Style, B66 flareless all ends. 20.0 degree seat angle. Nominal outside diameter tube accommodated, 0.375 inches all ends. UN Threads all ends. Nominal thread size, 0.562 inches all ends. Thread quantity per inch, 20 all ends. Thread class, 2A all ends. Leg length, 0.844 inches nominal 1st end. 90.0 degree flow angle. Includes 2 short coupling nuts and 4 ferrule sleeves.

00-982-2482

Steel CRES overall with Passivate overall surface treatment. Connection type, Threaded internal tube 1st end and unthreaded external tube 2nd end. Connection style, B12 swivel nut, flareless 1st end and B100A plain 2nd end. 12.0 degree seat angle 1st end. Nominal outside diameter tube accommodated, 0.188 inches 1st end and 0.375 inches 2nd end. UNF threads 1st end. Thread class, 2B 1st end. Tubing wall nominal thickness, 0.090 inches 2nd end. Leg length, 1.070 inches nominal 1st end and 2.050 inches nominal 2nd end. 90 degree flow angle. Includes 1 nut with sleeve.

01-040-4287

BOTH ENDS THREADED EXTERNAL FLARED TUBE ENDS.



90 DEGREE ELBOW, 37 degree seat angle.

Aluminum Alloy, Anodized

	UNJF	Tube OD/In.
00-722-7212	7/16-20	1/4
00-186-9997*	9/16	3/8

\* UNF threads

37 degree seat angle.

Steel, Cadmium Plated

	UN	Tube OD/In.
01-214-8929	1-5/8-12	2-1/2

45 degree seat angle.

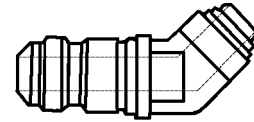
Copper Alloy

	UNF	Tube OD/In.
00-891-9967*	7/16-20	1/2
00-847-0035	1/2-20	5/8

	UNF	Tube OD/In.
00-288-9422	5/8-18	3/4
00-288-9420*	3/4-16	1

\* Non Spec Item.

BOTH ENDS THREADED. EXTERNAL FLARED TUBE ENDS, WITH BULKHEAD STYLE MOUNTING ON FIRST END.

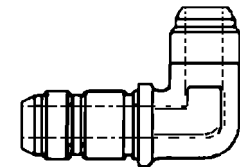


45 DEGREE ELBOW. 37 degree seat angle.

Steel, Cadmium Plated

	UNJF	Tube OD/In.
00-804-1933	7/16-20	1/2

90 DEGREE ELBOW. 37 degree seat angle.



Aluminum Alloy, Anodized

	UNJF	Tube OD/In.
00-725-4351	7/16-20	1/2

37 degree seat angle.

Aluminum Alloy, Anodized

	UNF	Tube OD/In.
00-197-2919*	1-1/16-12	1-1/2

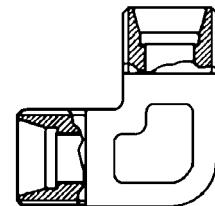
\* UNJ Threads.

37 degree seat angle.

Steel Composition, Passivated

	UNJF	Tube OD/In.
00-722-7214	7/16-20	1/4

BOTH ENDS THREADED EXTERNAL. FLARELESS TUBE ENDS.



90 DEGREE ELBOW. 12 degree seat angle.

# CLASS 4730

Steel, Corrosion Resisting

	UNF	Tube OD/in.
00-794-2280	3/4-16	1
00-008-9847*	1-1/16-12	3/4

\* UNJ threads

Steel, Corrosion Resisting overall with Passivate overall surface treatment. Threaded external both ends. Flareless, both ends. 12 degree seat angle both ends. Nominal outside diameter tube accommodated, 0.250 both ends. UNJF threads both ends. Nominal thread size, 0.438 inches both ends. 3A thread class both ends. Leg length 1.500 inches nominal 1st end and 0.938 inches nominal 2nd end. 90 degree flow angle.

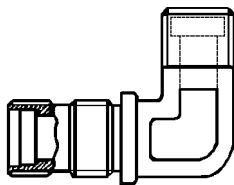
00-878-4736

20 degree seat angle.

Steel

	UNF	Tube OD/in.
00-683-9339	7/16-20	1/2

12 degree seat angle.



Aluminum Alloy, Anodized

	UNJF	Tube OD/in.
00-640-0830	7/16-20	1/4

12 degree seat angle.

Steel Composition, Passivated

	UNJF	Tube OD/in.
00-807-2274	7/16	1/4
00-684-3576	9/16-18	3/4
00-004-6542	7/16	1/4

UNTHREADED INTERNAL PIPE ENDS, SOCKET TYPE BRAZING ENDS. Steam, WOG 200 PSI.

45 DEGREE ELBOW.

Copper Alloy

	Pipe	Leg Lg/in.
00-542-5220	1/4	.560

UNTHREADED INTERNAL TUBE ENDS, CRIMPED STYLE

90 DEGREE ELBOW

Plastic overall

Nominal outside diameter tube accommodated, 0.600 inches 1st end and 0.480 inches 2nd end. Leg length, 1.120 inches nominal all ends.

00-814-6236

UNTHREADED INTERNAL TUBE ENDS, SOCKET TYPE BRAZING ENDS.

90 DEGREE ELBOW.

Copper Alloy

	Tube	Leg Lg/in.
00-542-5147*	2-3/8	2.120

\* With preinserted brazing rings.

BOTH ENDS UNTHREADED internal solder joint type. Copper to copper.



90 DEGREE ELBOW.

Copper Alloy

	Tube OD/in.
01-024-7127*	1/2
00-837-0685	3/4
00-254-6449	1
00-254-6450	1-1/4
00-254-6424	1-1/2
00-254-6447	1-3/4

\* Non Spec Item.

BOTH ENDS BUTT WELD ENDS.

90 DEGREE ELBOW. 150 PSI, steam WP.



Wrought Steel

	Tube OD/in.	Leg Lg/in.
00-640-6245	4-3/4	3.000
00-640-6246	5-3/4	3.750
00-640-6241	8	6.000

THREADED INTERNAL END, SWIVEL NUT. FLARE TO THREADED EXTERNAL END. 37 degree seat angle, both ends.

90 DEGREE ELBOW.

Corrosion Resisting Steel, Cadmium Plated

	Tube OD/in.	UNF
00-618-5370	1/2	.438

THREADED INTERNAL TUBE, SWIVEL NUT, FLARELESS. 12 DEGREE SEAT ANGLE TO UNTHREADED INTERNAL TUBE. SWAGED WITH GROOVES.

90 DEGREE ELBOW.

Steel, Corrosion Resisting

	Tube OD/in.	UNJF
00-134-8886*	1/2	7/16-20
01-044-7232*	1	3/4-16
01-013-0312	1-1/4	7/8-14

\* The internal surface of the swaged end will be polytetrafluoroethylene coated into the fitting bore.

## ELBOW, TUBE TO BOSS

THREADED EXTERNAL TUBE, FLARELESS TO THREADED EXTERNAL BOSS. DOUBLE THREADED SECTION BOSS FITTING GASKET, WITH LOCKNUT SEAL. 12 degree seat angle.

90 DEGREE ELBOW.

Steel, Corrosion Resisting.

	Tube OD/in.	Both Ends UNF
00-727-9795	1/2	7/16

THREADED EXTERNAL TUBE TO THREADED EXTERNAL BOSS. Flared first end. External seat for gasket seal. UNF all ends. 37 degree seat angle. Maximum operating temperature, 400.0 degrees Fahrenheit. 90 degree angle.

Steel overall.

	Tube OD/in.	1st End UNF	2nd End UNF
00-001-7778	0.500	3/4	7/8

THREADED EXTERNAL TUBE TO THREADED EXTERNAL BOSS. FLARED ONE END WITH EXTERNAL SEAT FOR GASKET SEAL OTHER END.

90 DEGREE ELBOW WITH 37 DEGREE SEAT ANGLE. STEEL COMPOSITION with Passivate overall surface.

	Tube OD/in.	UNJF
00-004-0737	1/8	5/16

## ELBOW, TUBE TO HOSE

THREADED INTERNAL TUBE, FLARED WITH SWIVEL NUT TO THREADED EXTERNAL HOSE, GRIPPING NIPPLE. 37 degree seat angle.

45 DEGREE ELBOW.

Steel, Cadmium Plated

	Tube OD/in.	UNF	Hose ID/in.	Hose OD/in.
00-709-3887*	0.250	0.438	0.219	0.438

# CLASS 4730

	Tube OD/In	UNF	Hose ID/In	Hose OD/In
00-088-3736	0.500	0.437	0.218	0.625

\* includes 1 hose coupling nut

90 DEGREE ELBOW.

	Tube OD/In	UNF	Hose ID/In	Hose OD/In
00-892-5596	1	3/4	7/16	7/8

45 DEGREE ELBOW.

Steel, Corrosion Resisting

	Tube OD/In.	UNJF	Hose ID/In.
00-889-2468	3/4	9/16	5/16

90 DEGREE ELBOW.

	Tube OD/In	UNF	Hose ID/In	Hose OD/In
01-040-5532	3/4	9/16	1/4	1/2
00-228-1106	1	3/4	13/32	9/16
01-026-9141	1-1/2	1-1/16	9/16	1

45 DEGREE ELBOW. 3000 PSI.

Steel, Corrosion Resisting

	Tube OD/In	UNF	Hose ID/In	Hose OD/In
00-551-2951	1/2	7/16	7/32	15/32

Steel Composition 304 overall with Passivate overall surface treatment. Connection type, Unthreaded internal tube 1st end. Unthreaded external hose 2nd end. B3 swivel nut, flare 1st end connection and B100C plain 2nd end. 37 degree seat angle. Nominal inside diameter hose accommodated, 0.568 inches 2nd end. Nominal outside diameter tube accommodated, 0.750 inches 1st end. UNJ threads first end. Nominal thread size, 1.062 inches 1st end. Thread quantity per inch, 12 1st end, 3B thread class. Leg length, 1.378 inches nominal 1st end and 3.250 inches nominal 2nd end. 90.0 degree flow angle. Includes 1 swivel.

01-026-9131

Steel Composition overall with Passivate overall surface treatment. Connection type, threaded internal tube 1st end and unthreaded external hose 2nd end. B3 swivel nut, flare connection style 1st end and B100C plain 2nd end. 12.0 degree seat angle 1st end. Nominal inside diameter hose accommodated, 0.250 inches 2nd end. Nominal outside diameter tube accommodated, 0.375 inches 1st end. UNJF threads 1st end. Nominal thread size, 0.563 inches 1st end. Thread class, 3B 1st end. Leg length, 0.681 inches nominal 1st end and 2.500 inches nominal 2nd end. 45.0 degree flow angle. Includes 1 swivel.

01-026-9133

THREADED INTERNAL TUBE, FLARED. WITH SWIVEL NUT TO THREADED EXTERNAL HOSE. SWIVEL NUT HOSE GRIPPING NIPPLE. Medium pressure. 37 degree seat angle.

90 DEGREE ELBOW. 1500 PSI.

Steel Composition, Passivated

	Tube OD/In	UNJF	Hose ID/In	Hose OD/In
00-013-6970	1/2	7/16	3/16	5/16
00-013-6969	3/4	9/16	5/16	7/16

THREADED INTERNAL TUBE, FLARELESS. WITH SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 degree seat angle.

45 DEGREE ELBOW. 3000 PSI.

Steel, Corrosion Resisting

	Tube OD/In	UNJF	Hose ID/In	Hose OD/In
00-106-4416	1	3/4	1/2	3/4

90 DEGREE ELBOW. 1500 PSI.

	Tube OD/In	UNJF	Hose ID/In	Hose OD/In
00-057-0664	1/2	7/16	3/16	5/16
00-053-0380	3/4	9/16	5/16	7/16
00-119-9854	1	3/4	13/32	9/16

ALUMINUM ALLOY OVERALL WITH ANODIZED SURFACE TREATMENT. SWIVEL NUT FLARE 1ST END WITH GRIPPING NIPPLE 2ND END.

37 DEGREE SEAT ANGLE

	Tube OD/In	UNJF	Hose ID/In	Hose OD/In
00-541-8234†	0.375	0.562	0.344	0.547
00-795-0945*	0.500	0.750	0.438	0.652

\* 90 degree flow angle  
† 45 degree flow angle

	Tube OD/In.	UN/In.	Hose ID/In.	Hose OD/In.
00-580-8548*	1.000	1.312	0.875	1.125
00-891-1947	1.250	1.625	1.125	1.422

\* 45 degree seat angle

	Tube OD/In.	UNF/In.	Hose ID/In.	Hose OD/In.
00-720-1166*	0.547	0.562	0.344	0.547
00-813-6923†	0.675	0.875	0.562	0.675

\* 90 degree flow angle  
† 45 degree flow angle

	Tube OD/In.	UNJ/In.	Hose ID/In.	Hose OD/In.
00-618-7382*	0.750	0.625	1.078	1.188
00-580-6453†	1.000	1.312	0.880	1.140
00-652-4626†	1.250	1.625	1.125	1.437

\* 45 degree flow angle  
† 90 degree flow angle

## EXPANSION JOINT, PIPE

Rubber, Nitrile. Flanged end connection. Includes drilled flange end feature. Bolt circle diameter, 6.000 inches nominal. 4 bolt holes. Flange outside diameter, 7.500 inches nominal. Steel flange material with Cadmium surface treatment. UNC threads. Working pressure rating, 225.0 PSI nominal. Nominal pipe size designation, 3.000 inches. Overall length, 5.125

inches nominal. SPECIAL FEATURES: Weapon system essential.

01-274-0807

Spool Design

Flanged end connection

Rubber body element. Includes drilled flange end feature. Bolt circle diameter, 6.000 inches nominal. 4 bolt holes. Flange outside diameter, 7.500 inches nominal. Steel flange material. Nominal pipe size, 3.000 inches. Overall length, 5.130 inches nominal. End Item: Arleigh Burke Class DDG.

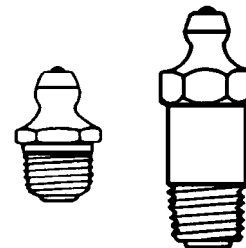
01-454-0088

Rubber body element. Double joint type. Includes drilled flange end feature. Bolt circle diameter, 7.500 inches nominal. 4 bolt holes. Flange outside diameter, 9.000 inches nominal. Steel flange material. Nominal pip size designation, 4.000 inches. Overall length, 5.380 inches nominal. End Item: Arleigh Burke Class DDG.

01-454-0089

## FITTING, LUBRICATION

HYDRAULIC STYLE, THREADED EXTERNAL. WITH BALL CHECK VALVE.



Nickel Alloy

	PTF-SPL Thd	Shank Lg/In.	H/In.
00-289-5241*	1/8-27	.250	1
00-172-0043	1/8-27	.312	3/4
00-172-0044	1/8-27	.312	1-1/4
00-172-0040†	1/4-28	.188	1/2

\* Non Spec Item.  
† UNS Thread.

Steel, Cadmium or Zinc Plated

	PTF-SPL Thd	Shank Lg/In.	H/In.
00-203-6406*	1/8-27	.234	9/16
00-050-4208†	1/8-27	.281	11/16
00-172-0049†	1/8-27	.375	15/16
00-172-0022	1/8-27	.750	1-1/4
00-289-6230†	1/8-27	1.266	1-3/4
00-255-2690§	7/32-36	.141	33/64
00-048-1788*	1/4-18	.438	29/32
00-172-0010	1/4-28	.125	17/32
	W/SAE-LT Thds.		
00-050-4203	1/4-28	.187	1/2
	PTF-SPL Shank.		
00-172-0001*	1/4-28	.625	15/16

	PTF-SPL Thd	Shank Lg./In.	H./In.
00-278-5652*	5/16-24	.250	21/32
00-278-5651*	3/8-24	.266	21/32

\* Non Spec Item.  
 † NPTF Thread.  
 ‡ NPT Thread.  
 § UNS Thread.

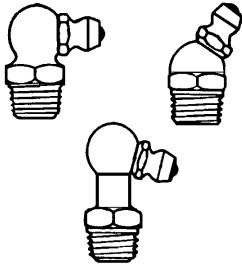
Steel, Corrosion Resisting

	PTF-SPL Thd	Shank Lg./In.	H./In.
00-972-5789	1/4-27	.281	3/4

Steel

	SAE-LT Thd	Shank Lg./In.	H./In.
00-916-3368	1/4-28	.188	1/2

ANGULAR FITTINGS, HYDRAULIC STYLE. THREADED EXTERNAL With ball check valve.



30 DEGREE FLOW ANGLE.

Nickel Alloy

	PTF-SPL Thd	Shank Lg./In.	H./In.
00-172-0045	1/8-27	.312	1-1/4

Steel, Cadmium or Zinc Plated

	NPTF Thd	Shank Lg./In.	H./In.
00-172-0025	1/8-26	.281	1-5/32

45 DEGREE FLOW ANGLE.

Nickel Alloy

	SAE-LT Thd	Shank Lg./In.	H./In.
00-172-0041	1/4-28	.187	7/8

Steel

	SAE-LT Thd	Shank Lg./In.	H./In.
00-347-6184	1/4-28	.233	7/8

Steel, Cadmium or Zinc Plated

	SAE-LT Thd	Shank Lg./In.	H./In.
00-172-0028*	1/8-27	.281	1-3/32
00-172-0015	1/4-28	.125	3/4

	SAE-LT Thd	Shank Lg./In.	H./In.
00-050-4205	1/4-28	.187	13/16

\* PTF-SPL Threads.

65 DEGREE FLOW ANGLE.

Nickel Alloy

	PTF-SPL Thd	Shank Lg./In.	H./In.
00-172-0046	1/8-27	.312	1-3/32

Steel, Cadmium or Zinc Plated

	PTF-SPL Thd	Shank Lg./In.	H./In.
00-172-0031	1/8-27	.281	31/32

90 DEGREE FLOW ANGLE.

Nickel Alloy

	SAE-LT Thd	Shank Lg./In.	H./In.
00-172-0047*	1/8-27	.312	1-1/16
00-172-0042	1/4-28	.187	3/4

\* PTF-SPL Threads.

Steel

	SAE-LT Thd	Shank Lg./In.	H./In.
00-450-9371	1/4-28	.188	25/32

Steel, Cadmium or Zinc Plated

	NPTF Thd	Shank Lg./In.	H./In.
00-172-0034	1/8-27	.281	15/16
00-172-0058	1/8-27	.375	1.000
00-050-4207*	1/4-28	.187	25/32

\* SAE-LT Threads.

HYDRAULIC STYLE, SPECIAL TAPERED SELF-TAPPING DRIVE, with ball check valve. Straight fitting.

Steel, Cadmium or Zinc Plated

	Shank Dia./In.	Shank Lg./In.	H./In.
00-256-4305*	.250	.250	.547

\* Serrated shank.

FLUSH STYLE, UNTHREADED EXTERNAL DRIVE TYPE with ball check valve.



Steel, Cadmium or Zinc Plated

	Shank Dia./In.	Shank Lg./In.	H./In.
01-077-4893	.127	.131	.182
00-250-7902	.250	.312	.359

## FITTING, SWIVEL

Steel, swivel body, 0.437 inch-20 UNF 2A threads male end. 360 degree swivel. End Item: Aircraft model CH-53E.

01-135-8775

## FLANGE, PIPE

SLIP-ON TYPE, WITH BOSS. UNTHREADED PIPE CONNECTIONS.



4 bolt holes, 3/4 inch diameter.

Steel, raised face. Painted.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-720-3852	2	6	4-3/4
00-235-4080	2-1/2	7	5-1/2

8 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-193-6972	4	9	7-1/2

SLIP-ON TYPE, WITHOUT BOSS. Unthreaded pipe connection.



3 bolt holes, 9/16 inch diameter. 750 degrees Fahrenheit.

Steel, plain serrated face. 150 PSI steam.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-256-8552	1/2	3-9/16	2-7/16

4 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-256-8553	3/4	3-13/16	2-11/16
00-256-8554	1	4-1/4	3-1/8
00-256-8555	1-1/4	4-1/2	3-3/8

6 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-256-8556	1-1/2	5-1/16	3-15/16
00-256-8557	2	5-9/16	4-7/16
00-256-8558	2-1/2	6-1/8	5

# CLASS 4730

8 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-256-8559	3	6-5/8	5-1/2
00-256-8560	3-1/2	7-3/16	6-1/16
00-256-8561	4	7-11/16	6-9/16

10 bolt holes, 11/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-256-8563	5	9-1/16	7-13/16

GROOVED SOCKET TYPE, WITH SILVER BRAZING ALLOY RINGS. For use by Silver brazing without exceeding temperature of 1500 degrees Fahrenheit. 150 PSI steam, water, oil, and gas working pressure at 425 degrees Fahrenheit maximum.

3 bolt holes, 9/16 inch diameter.

Copper Alloy. With boss and machined face.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6854	1/4	3-1/4	2-1/8
00-640-6856	3/8	3-9/16	2-7/16

4 bolt holes, 9/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6832	3/4	3-13/16	2-11/16
00-640-6834	1-5/8	4-1/2	3-3/8

4 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-252-3508*	2	6	4-3/4

\* Non Spec Item.

6 bolt holes, 9/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6835	1-7/8	5-1/16	3-15/16
00-640-6836	2-3/8	5-9/16	4-7/16
00-640-6837	2-1/2	6-1/8	5

6 bolt holes, 11/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-989-7459	2-1/2	6-1/8	5

8 bolt holes, 9/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6823	3	6-5/8	5-1/2
00-640-6824	3-1/2	7-3/16	6-1/16
00-640-6825	4	7-11/16	6-9/16

8 bolt holes, 11/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-541-3199	4	7-11/16	6-9/16

12 bolt holes, 11/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6829*	6	10-1/8	8-7/8

\* 150 degrees Fahrenheit maximum operating pressure.

14 bolt holes, 11/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6831	8	12-3/8	11-1/16

3 bolt holes, 9/16 inch diameter.

Copper Alloy. With boss and serrated face.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6855	3/8	3-13/32	2-1/4

4 bolt holes, 9/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6833	1	4-1/4	3-1/8

4 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-022-2800*	3	7-1/2	6

\* Non Spec Item with 180 degree Fahrenheit maximum operating pressure.

10 bolt holes, 11/16 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-640-6827	5	9-1/16	7-13/16

SILVER BRAZING SOCKET. WITHOUT PREINSERTED BRAZING RING. 600 PSI steam WP at 850 degrees .

4 bolt holes, 5/8 inch diameter.

Steel. Socket neck, raised machined face.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-174-5939	1/2	3-3/4	2-5/8
01-023-7776	1-3/8	4-7/8	3-1/2
01-024-8613	1-1/16	4-5/8	3-1/4

4 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
01-115-7437	3/4	4-5/8	3-1/4

4 bolt holes, 7/8 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-174-5943	1-1/2	6-1/8	4-1/2

4 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-174-5941	1	4-7/8	3-1/2

SOCKET NECK, RAISED MACHINED FACE. Steel. 1500 PSI steam WP, at 975 degrees

Fahrenheit. For use with schedule 80 pipe.

4 bolt holes, 7/8 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-289-8133	1/2	4-3/4	3-1/4
00-289-8134	3/4	5-1/8	3-1/2

SOCKET NECK, RAISED SERRATED FACE.

4 bolt holes, 9/16 inch diameter.

Steel. 600 PSI steam WP.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-174-5937	1/4	3-3/8	2-1/4

4 bolt holes, 5/8 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-878-8583	1/2	3-3/4	2-5/8

LONG NECK, PLAIN MACHINED FACE. Copper Alloy. Features 4 slots spaced 90 degrees apart. .750 inches wide x 1.500 inches deep.

4 bolt holes, 3/4 inch diameter.

	Pipe Size/In.	Flange Dia/In.	Bolt Cir Dia/In.
00-932-4753	2.000	7.000	5-9/16

## INSERT SET, SOUND ISOLATION

Rubber, Synthetic. 80 durometer rating. Consists of 3 parts: Part 1, positioning insert; part 2, thrust insert with Brass washer; part 3, bonded Brass thrust washer. All washers are Tetrafluoroethylene coated. For use in maintenance and repair of RISTIC-1 (formerly E.B. type) flexible connectors.

	Pipe Size/In.
01-042-3186	1-1/2
01-041-7219	2
01-064-7927	2-1/2
01-042-9681	3
01-080-6399	4
01-056-9586	5

## INSERT, TUBE FITTING

Straight serrated type. Not case hardened. Used with fittings on Oxygen and Acetylene applications. Dimensions given in inches.

Brass

	Tube ID/In.	Flange OD/In.	Sleeve OD/In.
01-228-7622*	.213	.375	.245
00-025-1092	.250	.500	.344

\* Non Spec Item, plain type.

Nylon, Polyamide

	Tube ID/In.
01-181-9598*	.750

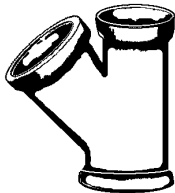
\* Non Spec Item, Plain type.

PLASTIC. Not rated for metallic hardness or casehardening. Tube inside diameter, 0.188 inches nominal. Plain style. Flange outside diameter, 0.242 inches nominal. Sleeve outside diameter, 0.170 inches nominal.

00-733-3884

LATERAL, PIPE.

SOCKET TYPE, WITH BRAZING RINGS. 150 PSI steam WP, at 425 degrees Fahrenheit.



Copper

	Pipe Size/In.
00-542-5291	1.500
00-542-5292	2.000
00-542-5294	3.000

## LOCKNUT, TUBE FITTING

STEEL COMPOSITION OVERALL WITH PASSIVATE OVERALL SURFACE TREATMENT.

UN threads, right-hand direction, size 1.062 inches nominal. Thread quantity per inch, 12. Thread class 3B. Nut height, 0.438 inches nominal. Width across flats, 1.375 inches nominal. Packing recess diameter, 1.295 inches nominal. Packing recess depth, 0.054 inches nominal. Nominal tube outside diameter, 0.750 inches.

00-684-7634

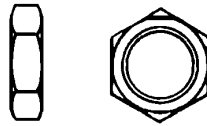
UNF threads, right-hand direction, size 0.750 inches nominal. Thread quantity per inch, 16. Thread class, 3B. Nut height, 0.344 inches nominal. Width across flats, 1.000 inches nominal. Packing recess diameter, 0.920 inches nominal. Packing recess depth, 0.042 inches nominal. Nominal tube outside diameter, 0.500 inches.

00-720-0770

Steel composition 304 overall with Passivate overall surface treatment. UN Threads. Nominal thread size, 1.312 inches. Thread quantity per inch, 12. Thread class, 3B right-hand. A391 Tube fitting locknut style. Nut height, 0.438 inches nominal. Width across flats, 1.625 inches nominal. Packing recess diameter, 1.541 inches nominal. Packing recess depth, 0.054 inches nominal. Tube outside diameter, 1.000 inches nominal. End item FBN Spruance class DD (963)

00-540-2018

THREADED INTERNAL LOCKNUT. Recessed for packing.



Aluminum Alloy, Anodized

	Tube UNF	OD/In.
00-277-6371	7/16-20	1/2
00-277-5083*	9/16-18	1
00-277-5081	3/4-16	1
00-277-5077†	1-1/16-12	1-1/2

\* UNJF Threads.

† UN Threads.

Steel, Cadmium Plated

	Tube UNF	OD/In.
00-277-5084	9/16-18	3/4

Steel, Corrosion Resisting

	Tube UNF	OD/In.
00-453-6187	7/16-20	1/2
00-734-5774	9/16-18	3/4

## NIPPLE, BOSS

STEEL OVERALL WITH CADMIUM OVERALL SURFACE TREATMENT

FLARELESS WITH CENTER WRENCHING FACILITY

Threaded external boss connection all ends. Connection style, B71A external seat for gasket seal all ends. UNJF threads, all ends. Nominal thread size, 0.750 inches all ends. Thread class, 3A all ends. Nominal overall length, 1.375 inches. SPECIAL FEATURES: Grumman Aerospace Corporation A10 Aircraft.

00-204-1972

Threaded external boss connection all ends. Connection style B71A external seat for gasket seal all ends. UNJF threads, all ends. Nominal thread size, 0.438 inches all ends. Thread class, 3A all ends. Nominal overall length, 1.062 inches. SPECIAL FEATURES Used on Grumman Aircraft, A10. End Item, used on Chinook Helicopter CH-47.

00-640-0461

STEEL COMPOSITION 304 OVERALL WITH PASSIVATE OVERALL SURFACE TREATMENT.

FLARELESS WITH CENTER WRENCHING FACILITY

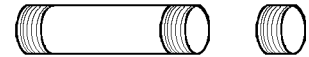
Maximum operating pressure, 3000.0 pounds per square inch, single response. Maximum operating temperature, 275.0 degrees Fahrenheit, single response. Threaded external

boss all ends. External seat for gasket seal all ends, connection. UNJF threads all ends. Nominal thread size, 0.750 inches all ends. Thread class 3A all ends. Nominal overall length, 1.375 inches.

00-720-1587

## NIPPLE, PIPE

THREADED EXTERNAL NATIONAL PIPE THREAD ENDS. Weight Standard and Extra Strong.



	NPT	Lg/In.
00-230-1996	1/8	3/4
00-264-9209	1/8	1
00-264-9125	1/8	1-1/4
00-196-1963	1/8	2
00-196-1964	1/8	2-1/2
00-196-1965	1/8	3
00-196-1967	1/8	4
00-196-1971	1/8	6
00-222-1837	1/4	7/8
00-264-9129	1/4	1-1/4
00-193-2709	1/4	1-1/2
00-193-2710	1/4	1-3/4
00-196-1972	1/4	2
00-196-1973	1/4	2-1/2
00-196-1974	1/4	3
00-196-1975	1/4	3-1/2
00-196-1976	1/4	4
00-114-4049	1/4	5
00-196-1980	1/4	6
00-222-1838	3/8	1
00-264-9126	3/8	1-1/4
00-193-2711	3/8	1-1/2
00-196-1981	3/8	2
00-196-1982	3/8	2-1/2
00-196-1983	3/8	3
00-196-1984	3/8	3-1/2
00-196-1985	3/8	4
00-196-1989	3/8	6
00-222-1839	1/2	1-1/8
00-193-2713	1/2	1-1/2
00-193-2714	1/2	1-3/4
00-196-1990	1/2	2
00-196-1991	1/2	2-1/2
00-143-3883	1/2	3
00-196-1993	1/2	3-1/2
00-196-1994	1/2	4
00-196-1996	1/2	5
00-196-1998	1/2	6
00-222-1840	3/4	1-3/8
00-196-1999	3/4	2-1/2
00-196-2000	3/4	3
00-196-2002	3/4	4
00-196-2003	3/4	4-1/2
00-196-2006	3/4	6
00-014-4615	1	1-1/2
00-193-2716	1	2
00-196-2007	1	2-1/2
00-159-0009	1	3
00-196-2010	1	4
00-196-2014	1	6
00-222-1842	1-1/4	1-5/8
00-193-2717	1-1/4	2
00-196-2015	1-1/4	3
00-196-2017	1-1/4	4

# CLASS 4730

	NPT	Lg./In.
00-222-1843	1-1/2	1-3/4
00-264-9128	1-1/2	2-1/4
00-193-2719	1-1/2	2-1/2
00-196-2022	1-1/2	3
00-196-2024	1-1/2	4
00-196-2028	1-1/2	6
00-222-1844	2	2
00-196-2029	2	3
00-196-2031	2	4
00-196-2035	2	6

Extra Strong Wall.

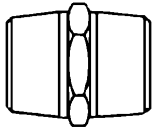
	NPT	Lg./In.
00-193-2715	3/4	2

Standard Wall.

Steel, Zinc Coated

	NPT	Lg./In.
00-196-1487	1/4	3
00-196-1541	1/4	6
00-196-1468	3/4	1-3/8

THREADED EXTERNAL PIPE ENDS WITH CENTER WRENCHING FACILITY.



Aluminum Alloy, Anodized.

	ANPT	Lg./In.
00-186-7783	1/8	.969

Steel, Cadmium Plated

	NPTF	Lg./In.
00-278-3722	1/4	1-7/16

## NIPPLE, TUBE

ALUMINUM ALLOY OVERALL WITH ANODIZED OVERALL SURFACE TREATMENT.

THREADED EXTERNAL TUBE ALL ENDS.

A55 flared with center wrenching facility. Threaded external tube all ends connection. Connection style, B64 flared all ends. 37 degree seat angle all ends. Nominal outside diameter tube accommodated, 0.375 inches all ends. UNJF threads all ends at 0.562 inches, and 3A thread class all ends. Nominal overall length, 1.375 inches.

01-143-1833

A56 flared with center wrenching facility style. Connection style, B64 flared all ends. 37.0 degree seat angle all ends. Nominal outside diameter tube accommodated, 0.750 inches all ends. UNJ threads, all ends. Nominal thread size, 1.062 inches, all ends. Thread quantity per inch, 12, all ends. Thread class 3A all ends. Nominal overall length, 2.109 inches.

00-186-9831

A64 flared with bulkhead thread. Connection style, B64 flared all ends. 37.0 degree seat angle all ends. Nominal outside diameter tube accommodated, 1.250 inches all ends. and 1.250 inches 1st end bulkhead. UN threads all ends and 1st end bulkhead. Nominal thread size, 1.625 inches all ends and 1st end bulkhead. Thread quantity per inch, 12 all ends and 1st end bulkhead. Thread class, 3A all ends and 1st end bulkhead. Leg length, 1.828 inches nominal 1st end and 0.958 inches nominal 2nd end. Nominal overall length, 3.156 inches.

00-879-2362

PLASTIC POLYAMIDE OVERALL. A66 flareless with center wrenching facility. Threaded external tube all ends. B66 flareless connection all ends. Seat angle, 12.0 degrees all ends. Nominal outside diameter tube accommodated, 0.250 inches all ends. UNJF all ends threads at 0.438 inches and 3A class all ends. Nominal overall length, 1.610 inches. Furnished items and quantity, 2 tube coupling nut and 4 ferrule sleeve.

01-069-6405

THREADED EXTERNAL ENDS, COMPRESSION TYPE BOTH ENDS. WITH .062 INCH SEAT RADIUS.

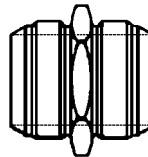


Copper Alloy

	UNS	Tube Size/In.
00-278-8717	7/16-24	1/2
00-289-0782*	9/16-24	3/4

\* UNEF Threads.

PRECISION TYPE. THREADED EXTERNAL ENDS, BOTH ENDS FLARED. Equilateral triangle on wrench pad indicates, precision type.



37 DEGREE SEAT ANGLE.

Aluminum Alloy, Anodized

	UNJF	Tube Size/In.
00-834-9560	7/16-20	1/2
00-925-4752	7/16-20	1/2
00-684-6916	9/16-18	3/4
00-684-6915	3/4-16	1
00-866-1829	7/8-14	1-1/4

Steel, Cadmium Plating.

	UNF	Tube Size/In.
00-825-7304	7/16-20	1/2
00-187-0486	9/16-18	3/4
00-187-0489*	1-1/16-12	1-1/2

\* UNJF Threads.

Steel, Cadmium Plated.

	UNJF	Tube Size/In.
00-684-6911	7/16-20	1/2

Steel Composition, Passivated.

	UNJF	Tube Size/In.
00-875-8264	7/16-20	1/2

Steel Composition, Passivated.

	UNJF	Tube Size/In.
00-684-6912	7/16-20	1/2
00-182-9021	9/16-18	3/4

Steel, Corrosion Resisting.

	UNF	Tube Size/In.
00-781-6089	9/16-18	3/4

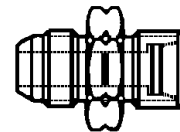
45 DEGREE SEAT ANGLE.

Copper Alloy.

	UNF	Tube Size/In.
00-277-6988	7/16-20	1/2
00-764-8770	1/2-20	5/8
00-949-8694*	5/8-18	3/4
00-873-3885	3/4-16	1

\* Non Spec Item.

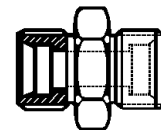
THREADED EXTERNAL ENDS. ONE END FLARED TYPE WITH 37 DEGREE SEAT ANGLE. OTHER END FLARELESS TYPE WITH 12 DEGREE SEAT ANGLE.



Steel, Cadmium Plated

	UNJF	Tube Size/In.
00-541-1579	7/16-20	1/2

THREADED EXTERNAL ENDS. FLARELESS BOTH ENDS. With 12 degree seat angle both ends.



Steel, Corrosion Resisting.



	UNJF	Tube Size/In.
00-702-5377	7/16-20	1/2
00-009-8259	7/16-20	1/2
00-839-5843*	7/16-20	1/2

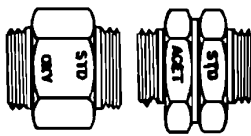
\* W/UNF Threads.

Steel, Corrosion Resisting. 20 degree seat angle.

	UNF	Tube Size/In.
00-061-0412*†	7/16-20	1/2
00-061-0414*	9/16-18	3/4

\* Non Spec Item.  
† 12 degree seat angle.

THREADED EXTERNAL ENDS. FLARELESS TYPE BOTH ENDS. With 30 degree seat angle. PC1 for Acetylene, PC2 for Oxygen.



Copper Alloy, for Acetylene.

00-828-8799 9/16-18 UNF, LH 7/8

Copper Alloy, for Oxygen.

00-828-8800 9/16-18 UNF, RH 7/8

**NOTE: For hose connector gland, see "INSERT, TUBE FITTING" FSC 4730.**

## NIPPLE, TUBE

Titanium Alloy overall. 3000.0 PSI. Long style with offset wrenching. THREADED EXTERNAL TUBE ALL ENDS. Cushion seal connection. Maximum operating temperature, 274 degrees Fahrenheit

	Tube OD/In.	UNJS	O/A Lg/In.
00-004-2799*	1.000	1-1/4	1.928
00-004-2800	0.250	7/16	1.190

\* Weapon System Essential

THREADED EXTERNAL BOSS ALL ENDS. Maximum operating temperature, 135 Degrees Celsius. Long with offset wrenching facility.

	UN	O/A Lg/In.
00-004-2797	9/16	1.302

## NOZZLE, DISTRIBUTION, WATER

Steel CRES. Connecting end thread location, internal. Connecting end nominal pipe thread diameter, 0.500 inches. Does not include reverse flow port area automatic change feature. End Item: Used on type SB nozzle.

01-169-9821

## NOZZLE, GARDEN HOSE

Brass or Aluminum Alloy. Periphery-Jet type, 14 ounce maximum width. 5 inches long at shutoff.

00-595-1103

INTERNAL NATIONAL HOSE THREADS, screw type. Adjustable from spray to solid stream.



Copper Alloy

00-223-6731 3/11-1/2 NH

PISTOL GRIP TYPE. Brass body, CRES. Steel lever arm, Rubber cover. 150 PSI, water only. Adjustable from spray to solid stream. 7-3/8 inches long by 6-1/2 inches high by 2-3/8 inches wide. Furnished with hose adapter.

00-900-0733

## NOZZLE, SPRAY, FLUID-EMULSION

INTERNAL THREAD. 5/16-24 UNF. 1/2 inch outside diameter, 3/8 inch long.

Steel

01-037-4884

Threaded inlet connection. Overall length, 0.400 inches nominal. External inlet thread location.

Steel

00-104-7393

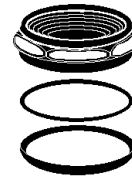
## NUT, HOSE COUPLING

Steel Composition 303 overall with passivate overall surface treatment. Hardness and temperature are not rated. UNEF right-hand threads. Nominal thread size, 0.500 inches. Thread quantity per inch, 28. Thread class, 3B. Nut height, 0.806 inches nominal. Width across flats, 0.562 inches nominal. Smallest inside diameter, 0.438 inches nominal. Hose nominal size, 0.188 inches.

00-967-9513

## NUT, SLIP JOINT

THREADED INTERNAL AMERICAN STANDARD STRAIGHT PIPE THREADS, FOR MECHANICAL JOINTS. Furnished with friction ring and washer.



Copper, Chrome Plated

	NPSM	Tube OD/In.
00-270-3891	1-1/2	1.250
00-270-3886	1-1/2	1.500
00-419-9372*	1-1/2	1.990

\* Non Spec Item, NPSL Threads.

## NUT, TUBE COUPLING

Steel composition 1137 or Steel composition 1141 overall with Cadmium overall surface treatment. UNF Threads. Thread size, 0.375 inches nominal. Thread quantity per inch, 24. Thread class, 3B. Right-hand direction. Nut style A350 Tube, Coupling. Nut height, 0.578 inches nominal. Width across flats, 0.438 inches nominal. Length to shoulder, 0.422 inches minimum and 0.438 inches maximum. Smallest inside diameter, 0.230 inches minimum and 0.245 inches maximum. 45 degree seat angle. Machined fabrication.

00-289-8637

Aluminum Alloy 2014 overall with Anodized overall Surface treatment. Right-hand threads. Nominal thread size, 1.312 inches. Number or threads, 12. Thread class, 3B. A351 Tube Coupling nut style. Nut height, 1.125 inches nominal. Width across flats, 1.500 inches nominal. Length to shoulder, 0.962 inches nominal. Smallest inside diameter, 1.089 inches nominal. Machined fabrication method. Nominal tube outside diameter, 1.000 inches. End Item, Grumman A-10 Aircraft.

00-222-1915

Aluminum Alloy 2024 overall with Anodized overall surface treatment. UNF threads. Thread size, 0.562 inches nominal. Thread quantity per inch, 18. Thread class 3B, right hand. Nut style, A35 Tube, Coupling. Nut height, 0.800 inches nominal. Width across flats, 0.688 inches nominal. Length to shoulder, 0.578 inches nominal. Smallest inside diameter, 0.425 inches nominal. 45 degree seat angle. Machined fabrication. Nominal tube outside diameter, 0.375 inches.

00-554-7397

THREADED INTERNAL COMPRESSION TYPE. 45 degree seat angle.



# CLASS 4730

## Copper Alloy

	UNF	Tube Size/In.
00-067-9801	5/16-24	1/4
00-043-3750	3/8-24	3/8
00-011-4627*	7/16-24	1/2
00-278-8829*	1/2-24	5/8
00-287-1537†	9/16-24	3/4

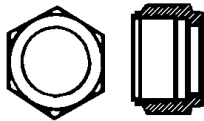
\* UNS Threads.  
† UNEF Threads.

## Steel Composition, Passivated

	UNJF	Tube Size/In.
00-001-3956*	7/16-20	1/2
00-009-2132*	9/16-18	3/4
00-009-3393*	3/4-16	1
00-172-1835*	7/8-14	1-1/4
00-009-2133*	1-1/16-12	1-1/2

\* Non Spec Item.

## THREADED INTERNAL FLARED TUBE TYPE.



## Aluminum Alloy, Anodized

	UNF	Tube Size/In.
00-287-0289	7/16-20	1/2
00-142-2167	9/16-18	3/4
00-287-0290	7/8-14	1-1/4

UNF right-hand threads, size, 0.750 inches. Thread quantity per inch, 16. Thread class, 3B. Nut height, 1.020 inches nominal. Width across flats, 0.690 inches nominal. Length to shoulder, 0.554 inches nominal. Smallest inside diameter, 0.505 inches nominal. 37 degree seat angle. Nominal tube outside diameter, 0.500 inches. Any acceptable fabrication method.

## 00-684-7081

UNF right-hand threads, size 0.562 inches. Thread quantity per inch, 18. Thread class, 3B. Nut height, 0.920 inches nominal. Width across flats, 0.690 inches nominal. Length to shoulder, 0.460 inches nominal. Smallest inside diameter, 0.380 inches nominal. 37 degree seat angle. nominal tube outside diameter, 0.375 inches. Any acceptable fabrication method.

## 00-684-7305

## Copper Alloy

	UNF	Tube Size/In.
00-817-1891*	7/16-20	1/2

\* UNJ Threads.

## Steel, Cadmium Plated

	UNF	Tube Size/In.
00-222-1912	7/16-20	1/2
00-287-0276	1/2-20	5/8

	UNF	Tube Size/In.
00-203-3831*	9/16-18	3/4
00-722-4891*	3/4-16	1

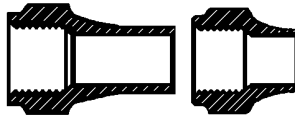
\* UNJF Threads.

## Steel, Corrosion Resisting

	UNF	Tube Size/In.
00-203-2658	7/16-20	1/2
00-203-2661	9/16-18	3/4
00-203-2662	3/4-16	1
00-113-0575*	1-5/16-12	2

\* UNJ Threads.

## THREADED INTERNAL FLARE TYPE, 45 DEGREE SEAT ANGLE.



## Copper Alloy, Long

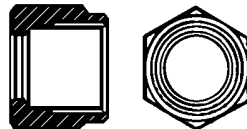
	UNF	Tube Size/In.
00-014-4303	5/16-24	1/4
00-189-2729	7/16-20	1/2
00-011-8538	1/2-20	5/8
00-189-2733	3/4-16	1

## Copper Alloy, Short.

	UNF	Tube Size/In.
00-189-2736*	3/8-24	3/8
00-189-2737	7/16-20	1/2
00-189-2738*	1/2-20	5/8
00-189-2739	5/8-18	3/4
00-228-0826	3/4-16	1

\* UNJ Threads.

## THREADED INTERNAL FLARELESS TYPE, 45 DEGREE SEAT ANGLE.



## Steel, Cadmium Plated, Short

	UNF	Tube Size/In.
00-554-8015	7/16-20	1/2
00-810-4499	7/16-16	3/4
00-554-8018*	3/4-16	1
00-914-9851*	1-1/16--12	1-1/2

\* UNJ Threads.

## Steel, Corrosion Resisting, Short

	UNF	Tube Size/In.
00-800-4788*	7/16-20	1/2
00-919-4651†	7/16-20	1/2
01-074-6036†	9/16-18	3/4

\* 40 degree seat angle.  
† NJ Threads.

## OUTLET, PIPE

End Item: 4510-01-299-5799 Vacuum Water Closet onboard 110 FT A Class WPB Coast Guard Vessels.

01-425-7289

## PACKING NUT

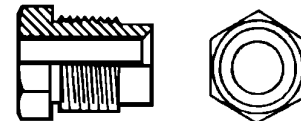
THREADED INTERNAL, SHOULDERED. NATIONAL SCREW THREADS. Hexagon wrenching feature.



## Steel, Corrosion Resisting

	UNEF	Small ID/In.
00-752-9655	1-20	3/4

THREADED EXTERNAL NATIONAL SCREW THREADS, INVERTED FLARE. Hexagon wrenching.



## Bronze. 30 degree seat angle.

	UNEF	Small ID/In.	O/A Lg/In.
00-200-0485	1-7/16-18	1.000	7/8

THREADED INTERNAL NATIONAL SCREW THREADS. IRREGULAR STYLE.

## Steel

	UNF	Smallest ID/In.	O/A OD/In.	Lg/In.
00-142-1003	7/8-14	7/8	1-3/8	1-3/8

## PARTS KIT, NOZZLE WEB

Consists of 0.500 inch three-pronged nut, 1, 0.500 inch round head screw. 1, 0.500 inch flat washer. 1, 0.500 inch CRES ball. 1, 0.500 inch inside diameter helical insert. End Item: USNS Henry J. Kaiser Class TAO.

01-171-7185

## PARTS KIT, SEDIMENT STRAINER

3 components. Nonsupply items and quantity, 1/8 inch Allen wrench. 1 Plastic strainer tool. 1 Strainer element. 1 servo control hydraulic valve.

01-101-7143

11 components. Cylin gaskets 4, nut cover gaskets 2, wingnut washers 2, 0-rings 3.

00-005-0836

## PARTS KIT, SWIVEL JOINT

55 components. Nonsupply items and quantities, ball bearing 49, O-Ring, small 1, O-Ring, large 1, thrust washer 2, gasket 1, retaining ring 1.

01-214-7125

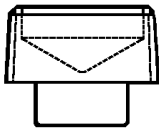
## PLUG, OIL, GEAR SHAFT

Magnesium Alloy. 1.426 Inches minimum, 1.428 inches maximum overall diameter.

00-001-4496

## PLUG, PIPE

THREADED EXTERNAL PLUG. RAISED SQUARE HEAD WRENCHING TYPE.



SOLID HEAD AND BODY

Copper Alloy.

	NPT
00-011-3175	1/8-27
00-011-2578	1/4-18
00-011-2304	3/8-18
00-011-3177	3/4-14
00-011-3179	1-1/4-11-1/2

Copper Alloy, Cadmium Plated. Head drilled for lockwire.

	NPT
00-188-3509	1/8-27

Iron or Steel, Zinc Plated.

	NPT
00-279-0985	1/4-18
00-010-3867	3/8-18
00-187-4191	1/2-14
00-834-6187	1/2-14

Steel with Zinc surface treatment. Nominal thread size, 0.125 inches. Thread quantity per inch, 27 external, 2A class, right-hand external direction. End Item: 23N ship, Ohio Class SSN (Trident).

01-198-2849

SOLID HEAD, CORED BODY

Copper Alloy.

	NPT
00-011-3178	1-11-1/2
00-187-4231	1-1/2--11-1/2

Iron or Steel.

	NPT
00-187-4210	3/4-14

Plastic

	NPT
00-990-2096*	1/4-18
* Non Spec Item.	

CORED HEAD AND BODY

Copper Alloy

	NPT
00-011-3176*	1/2-14
00-187-4232	2-11-1/2
* Non Spec Item. NPTF Thread.	

THREADED EXTERNAL PLUG. HEXAGON WRENCHING TYPE.

SOLID HEAD AND BODY

Steel, Corrosion Resisting

	NPT
00-343-7247	3/8-18

SOLID HEAD, CORED BODY

Copper Alloy, Cadmium Plated.

	Thd ANPT
00-585-6749	3/8-18

THREADED EXTERNAL PLUG. ROUND HEAD, RECESSED SQUARE WRENCHING TYPE.

SOLID HEAD AND BODY

Copper Alloy.

	NPT
00-203-0153	1/2-14
00-278-3437	3/4-14

Iron or Steel, Cadmium Plated.

	NPT
00-604-7953	1-11-1/2

THREADED EXTERNAL PLUG. ROUND HEAD, RECESSED HEXAGON WRENCHING TYPE.

SOLID HEAD AND BODY

Iron or Steel, uncoated.

	NPT
00-018-9566*	1/8-27
00-042-8988	1/4-18
00-954-1281*	1/4-18
00-057-5555*	3/8-18
00-289-5176*	1/2-14
00-359-3872	3/4-14
* NPTF Threads.	

Steel, Cadmium Coated.

	ANPT
00-278-3462	1/8-27

Steel, Corrosion Resisting.

	Thd ANPT
00-541-7749	1/8-27

## PLUG, QUICK DISCONNECT

Aluminum Alloy. Maximum operating pressure and media for which designed, not rated. Maximum operating temperature and media for which designed, 160.0 degrees Fahrenheit, any acceptable. Overall length, 1.468 inches nominal. Quick lead thread all ends Quick disconnect method. Furnished items and quantity, 1 chain.

00-576-5545

## PLUG, SHANK, ARRESTIN

End Item: F/A-18 Hornet.

01-166-4668

## PLUG, TUBE FITTING, THREADED

A threaded external fitting having an internal or external seating surface. Designed to form a seal when mated with other tube fittings, to retain fluids under pressure during equipment operations. Flared with 37 degree seat angle.

Titanium Alloy overall with Lubricant surface treatment. C43 plug, tube fitting flareless style. Head height, 0.188 inches nominal. Overall length, 0.483 inches nominal. End connection style J5 flareless. UNJS External screw threads. Nominal thread size, 0.563 inches external. Thread quantity per inch, 20 external. Thread class, 3A right-hand external. 37 degree seat angle. Maximum operating pressure and media for which designed, 3000.0 pounds per square inch, Fuel/Oil, Hydrocarbon. Operating temperature, not rated.

00-583-3467

Titanium Alloy overall with Lubricant surface treatment. C43 plug, tube fitting flareless style. Head height, 0.162 inches nominal. Overall Length, 0.437 inches nominal. End connection style, J5 flareless. UNJS external threads. Nominal thread size, 0.438 inches external. Thread quantity per inch, 24 external. Thread class 3A right-hand external. Seat angle, 37 degrees. Maximum operating pressure and media for which designed, 3000.0 pounds per square inch, Fuel/Oil, Hydrocarbon. Maximum operating temperature not rated.

00-571-9648

Titanium Alloy overall with Lubricant overall surface treatment. C43 plug, tube fitting flareless style. Head height, 0.292 inches nominal. Overall length, 0.664 inches nominal. J5 flareless end connection style. UNJS external threads. Nominal thread size, 0.844 inches external. Thread quantity per inch, 18 external. Thread class, 3A external, right-hand external. Seat angle 37 degrees. Maximum operating pressure and media for which designed, 5000.0 pounds per square inch, Fuel/Oil, Hydrocarbon.

# CLASS 4730

Maximum operating temperature not rated.

00-570-0465

Steel, Cadmium Plated.

	UNF	Tubing OD/in.
00-542-4994	7/16-20	1/2
00-142-1831	1/2-20	5/8
00-805-1404	3/4-16	1
00-278-4998	3/4-16	1
00-278-4997	7/8-14	1-1/16
00-278-5000	1-1/16--12	1-1/2
00-278-4996	1-5/16--12	2

Steel, Corrosion Resisting.

	UNF	Tubing OD/in.
01-108-7746	9/16-18	3/4

Steel, Cadmium Plated. Flareless, with 12 degree seat angle.

	UNJF	Tubing OD/in.
00-595-2612	7/16-20	1/2
00-053-1919*	7/16-20	1/2
00-203-3709	9/16-18	3/4
00-202-8341	3/4-16	1
00-966-5695	7/8-14	1-1/8
00-289-8627	1-1/16--12	1-1/2
00-289-8626	1-5/16--12	2

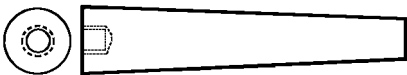
\* Steel Composition, Passivated

Steel composition 1137 or Steel composition 1141 overall. Cadmium surface treatment overall. Style C43 Plug, tube fitting flareless. Head height, 0.187 inches nominal. Overall length, 0.609 inches nominal. End connection style J5 flareless. UNJF external threads. Thread class 3A. Thread direction, right-hand external. Seat angle, 12.0 degrees. Maximum operating pressure and media for which designed, 3000.0 pounds per square inch — hydraulic fluid. Maximum operating temperature and media for which designed, 275.0 degrees Fahrenheit — hydraulic fluid. End item, Grumman Aerospace Inc., supports A-10 Aircraft.

00-289-8632

## PLUG, TUBE REPAIR

Tapered plug designed to plug temporarily the end of leaking boiler tubes, condenser tubes, and the like.



Phenolic, unthreaded.

	Plug Size/in.	Small Dia/in.	Large Dia/in.
00-337-6753	1/4	.094	.312
00-289-0593	3/8	.219	.438
01-029-2857	5/8	.437	.687
00-289-0595	3/4	.500	.812

Steel. Internal threaded large end.

	Thd Size	Small Dia/in.	Large Dia/in.
00-142-2690	5/8-12RH	.750	.937
00-142-1505	5/8-11NC	1.625	1.812

## REDUCER, HOSE

THREADED INTERNAL HOSE, GASKET SEAL TO THREADED EXTERNAL HOSE, PLAIN END. 200 PSI WATER.

Copper Alloy

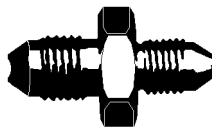
00-618-8593 3 inches to 4 inches

## REDUCER, BOSS

ALUMINUM ALLOY OVERALL WITH ANODIZED SURFACE TREATMENT. Media for which designed, Hydraulic fluid single response. Threaded external boss all ends. External seat for gasket seal all ends, style. UNJF all ends sized, 0.562 inches 1st end and 0.438 inches 2nd end. thread class, 3A all ends. Nominal overall length, 1.219 inches. Concentric reducer. End item, Missile, Minuteman, LGM-30.

00-640-7201

THREADED EXTERNAL AMERICAN STANDARD AND UNIFIED FORM THREADS BOTH ENDS. FLARED TYPE BOTH ENDS. 37 degree seat angle.



Aluminum Alloy.

	End	Tube Size/in.	Thd Size
00-187-3588	1	1-1/4	7/8 UNJF
00-812-5036	1	1/2	7/16
00-684-7451	1	5/8	1/2 UNJF
00-684-7157	1	3/4	9/16
00-833-9800	1	1	3/4

Steel Composition, Passivated

	End	Tube Size/in.	Thd Size
00-720-0233	1	3/4	9/16 UNJF

Steel, Cadmium Plated

	End	Tube Size/in.	Thd Size
00-235-1499	1	5/8	1/2 UNJF

Steel Composition, Cadmium Plated

	End	Tube Size/in.	Thd Size
00-187-3600	1	3/4	9/16 UNJF

Steel, Corrosion Resisting

	End	Tube Size/in.	Thd Size
00-541-8287	1	1/2	7/16 UNJF

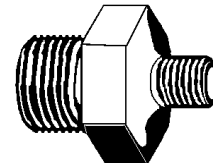
NON SPEC ITEMS.

37 degree seat angle, both ends.

Steel

	End	Tube OD/in.	UNF
00-524-7924	1	1/2	7/16-20

THREADED MALE AMERICAN STD AND UNIFIED FORM THREADS BOTH ENDS. FLARELESS TYPE BOTH ENDS. 12 degree seat angle.



Steel Composition, Passivated

	End	Tube OD/in.	UNJF
00-720-0234	1	1	3/4-16

NON SPEC ITEMS.

Steel, Corrosion Resisting. 12 degree seat angle, both ends.

	End	Tube Size/in.	Thd Size
00-793-2732	1	3/4	9/16-20 UNS

THREADED EXTERNAL, FLARELESS, 15 DEGREE SEAT ANGLE. TO THREADED EXTERNAL, FLARED, 37 DEGREE SEAT ANGLE.

Aluminum Alloy, Anodized

	End	Tube OD/in.	UN
00-843-1505	1	2.1/2	1-5/8-12

THREADED INTERNAL TUBE, SWIVEL NUT INVERTED FLARE. 8.5 DEGREE SEAT ANGLE TO UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. The internal surface of the swaged ends are polytetrafluoroethylene coated.

Steel, Corrosion Resisting

	End	Tube Size/in.	Thd Size
00-351-2199	1	3/4	9/16-20 UNJ

UNTHREADED INTERNAL TUBE BOTH ENDS WITH SOCKET BRAZING RING.

Copper Alloy

	End	Tube Size/in.	Thd Size
00-542-5313	1	2-3/8	—

Aluminum Alloy 2014 overall with Anodized overall surface treatment. Threaded external boss all ends. Connection style, B81 flared with

gasket seal all ends. Thread series designator, UN 1st end. UNF 2nd end. Nominal thread size, 1.062 inches 1st end. 0.750 inches 2nd end. Thread quantity per inch 12 1st end. Thread class, 3A all ends. Nominal overall length, 1.891 inches. Reducer type, concentric. End Item, Aircraft Fluid Systems.

00-187-3592

## REDUCER, TUBE

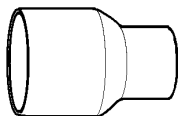
UNTHREADED INTERNAL SOCKET END WITH PREINSERTED BRAZING RING, TO UNTHREADED EXTERNAL FITTING END. 3000 PSI WOG WP.



Copper Alloy

End	Tube OD/In.
00-142-1193	1 .540
00-142-1195	1 .840
00-142-1196	1 .840
00-142-1197	1 1.050
00-142-1204	1 1.900
00-142-1203	1 2.375

UNTHREADED INTERNAL CRIMPED BOTH ENDS, COPPER-TO-COPPER REFRIGERATION TYPE.

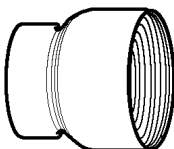


Copper Alloy

End	Tube OD/In.
00-264-9171	1 .625

## REDUCER, PIPE

THREADED INTERNAL NATIONAL PIPE THREADS BOTH ENDS.



Brass, Bronze, or Copper Alloy. 125 PSI steam.

	From Size	To Size
00-287-0706	1/4-18	1/8-27
00-189-3029	3/8-18	1/4-18
00-189-3030	1/2-14	1/4-18
00-189-3031	1/2-14	3/8-18
00-189-3032	3/4-14	1/4-18
00-189-3033	3/4-14	to 3/8-18

	From Size	To Size
00-189-3034	3/4-14	1/2-14
00-189-3036	1--11-1/2	1/2-14
00-189-3037	1--11-1/2	3/4-14
00-189-3039	1-1/4--11-1/2	1--11-1/2
00-189-3040	1-1/2--11-1/2	3/4-14
00-189-3041	1-1/2--11-1/2	1--11-1/2
00-189-3042	1-1/2--11-1/2	1-1/4--11-1/2
00-189-3045	2--11-1/2	1-1/2--11-1/2

UNTHREADED INTERNAL SOCKET TYPE BOTH ENDS. With brazing rings.



Copper Alloy

	From Size	To Size
00-542-5308	1/2	1/4
00-542-5309	3/4	3/8
00-542-5310	1	1/2
00-542-5311	1-1/4	3/4
00-542-5312	1-1/2	1
00-542-5314	2-1/2	1-1/2
00-542-5316	3	2

UNTHREADED INTERNAL PIPE, SOCKET END TO UNTHREADED EXTERNAL PIPE, PLAIN END. 3000 PSI WOG.

Steel

	From Size	To Size
01-022-3152	1/4	1/2
01-022-3153	1/2	3/4

## REDUCER, TUBE

TITANIUM ALLOY UNS R54520 OVERALL

THREADED INTERNAL TUBE 1ST END, UNTHREADED INTERNAL TUBE 2ND END.

B3 Swivel nut, flare 1st end and B31A Streamlined with one brazing ring 2nd end. 37.0 degree seat angle. Nominal outside diameter tube accommodated, 1.000 inches 1st end and 1.495 inches 2nd end. UNJ threads 1st end. Nominal thread size, 1.312 inches 1st end. Thread quantity per inch, 12, 3B 1st end. Nominal overall length, 2.663 inches. Concentric reducer.

01-355-0459

## REPAIR KIT, PIPE, EMERGENCY DAMAGE CONTROL

5 Components. Nonsupply items and quantities, tape 1-180.0 inches nominal length; cloth 1; metal seam sealing fiberglass 1; visitor's specs (safety glasses) 1; pair, rubber gloves 1.

01-253-9953

5 components. Tape, 62.000 inch nominal length 1; cloth 1; metal seam sealing fiberglass 1; visitors specs (safety glasses) 1; pair, rubber gloves 1.

01-242-6186

## REPAIR KIT, METALLIC PIPE AND GENERAL PURPOSE, DAMAGE CONTROL

A kit for making emergency repairs to metallic piping systems and general purpose damage control. Consisting of two assemblies containing a synthetic thermo-setting resin in paste and liquid forms. With associated hardening agents and with glass reinforcement.

Contents of Assembly 1, Kit:

Resin, liquid	4 cans, 400 grams each
Hardener, liquid	4 cans, 100 grams each
Cloth, glass, woven roving	1 piece, 24 x 40
Void, cover	1 piece, 8 x 36
Film, Polyvinyl Chloride	1 piece, 36 x 72
Stirring tool, spatula	4 each
Chalk line	1/8 lb
Abrasive cloth	1 sheet, 9 x 11
Scissors	1 each
Gloves, Polyethylene	4 pairs
Face shield	2 each
Instruction manual	1 copy

Contents of Assembly 2, Kit:

Resin, paste	4 cans, 300 grams each
Hardener, paste	4 cans, 75 grams each
Stirring tool, spatula	4 each
00-542-3359	Assembly 1
00-542-3362	Assembly 2

## RESTRICTOR, FLUID FLOW

THREADED TUBULAR.

Steel, Corrosion Resisting

	Orifice Dia/In.	UNF	OD/In.
00-383-4560	.0400	1/4-28	.435

THREADED TUBULAR, HEXAGON SHAPE.

Brass

	Orifice Dia/In.	UNF	OD/In.
00-117-4550	.055	2/16-34	.330

Steel, Black Oxide Coated

	Orifice Dia/In.	UNF	OD/In.
00-366-1187	.437	5/8-24 UNEF	.625

UNTHREADED TUBULAR.

Brass

# CLASS 4730

	Orifice Dia./In.	UNF	OD./In.
00-678-0285	.020	1/4	.250
00-055-1642	.125	5/16	.188

Plastic

	Orifice Dia./In.	UNF	OD./In.
00-203-7626	.026	3/16	.875

Steel CRES with Passivated surface treatment. Tubular, unthreaded. Outside diameter, 0.500 inches nominal. Length, 0.960 inches nominal. Orifice diameter, 0.120 inches nominal.

01-200-2593

## RESTRICTOR UNIT, FLUID FLOW

Straight design with plate and screen. Steel, Corrosion Resisting.

150 PSI

	Pipe Size	Orifice Dia./In.	Lg./In.
00-216-6146	1/2	.030	2.812
00-216-6132	3/4	.030	3.375

600 PSI

	Pipe Size	Orifice Dia./In.	Lg./In.
00-216-6152	1/2	.030	3.188
00-216-6151	3/4	.030	3.938

1500 PSI

	Pipe Size	Orifice Dia./In.	Lg./In.
00-217-7462	1/2	.020	3.750
01-054-3762	1/2	.036	—
00-217-7443	3/4	.020	4.125

## RETAINER, CONNECTOR

Teflon. Special Features: Weapons system essential. End Item: F/A-18 Hornet Aircraft.

01-244-4333

## RING, WELDING, PIPE JOINT

Inverted T-shaped cross section. Preformed, open-lap joint. Rings are intended for use in making sound, smooth, uniform, crack-free, root welds where accessibility is limited to one side.

Steel, Austenitic Chromium Nickel

	Size
00-880-4592	1/8

## SEAL, CONICAL, FLARED TUBE FITTING

Copper Alloy, non case hardened. Non-lox cleaned. .005 inch wall thickness. 37 degree seat angle.

	Tube Size/In.	OD./In.	Body Lg./In.
00-118-6501	3/8	3/8	.060

## SEAL NUT, PIPE

PIPE SEAL NUT FURNISHED WITH PREFORMED PACKING.

Steel, Cadmium and Chromate Plating

	NPT
00-715-2761	1/8-27

Steel Composition

	NPT
01-190-2744	1/4-18
01-198-5595	1/2-14

Steel, Corrosion Resisting

	NPT
01-030-7179	1/4-18

## SEAT AND GASKET

HEXAGON HEAD. Stainless Steel seat, Brass gasket.

	OD./In.	UNF	Hex Size/In.
00-391-8422	.625	1/2-20	.625

## SEAT, BALL

Plastic. Used on Duplex fuel oil strainer. 4-1/2 inch diameter.

01-146-7063

## SHIELD, SAFETY, PIPE FLANGE

Heavy weight, plain weave, fibrous glass cloth. Aluminized. Naval Sea System Command drawing 803-2145518.

240 INCHES LONG WITH 148 HOOKS.

	W/In.
01-010-6123	9.000
01-010-1001	10.000
01-010-1002	11.000
01-010-1003	12.000

360 INCHES LONG WITH 228 HOOKS.

	W/In.
01-010-0997	5.000
01-010-0998	6.000
01-010-0999	7.000
01-010-1000	8.000

## SLEEVE, CHANNEL BAND

End Item: Lamps Mark III SH-60B Helicopter.

01-245-8024

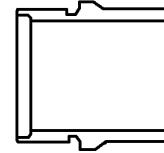
SPECIAL FEATURES: Weapon system

essential. End Item: Helicopter Model SH-60B, Lamps Mark III

01-245-8021

## SLEEVE, CLINCH, TUBE FITTING

FLARELESS SLEEVE WITH 35 DEGREE SEAT ANGLE.



Steel, Cadmium Plated

	Tube Size	Sleeve OD./In.
00-004-4265†	1/4	0.312
00-289-8618*	3/8	.254
00-289-8619†	1/2	.309
00-554-7398†	3/4	.435
00-580-2120	1	.585
00-541-7725	1-1/4	.707
00-289-8622	1-1/2	.836
00-289-8623	2	1.086

\* 37 degree seat angle.  
† 12 degree seat angle.  
‡ 40 degree seat angle.

Steel composition 1213 with Cadmium surface treatment. No harness rating. Casehardened. Outside diameter, 0.313 inches nominal. Flareless. Overall length, 0.590 inches nominal. Flange width, 0.060 inches nominal. Flange outside diameter, 0.422 inches nominal. 35 degree seat angle. Sleeve outside diameter, 0.373 inches nominal.

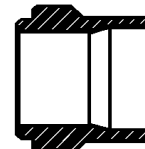
00-289-8620

Steel, Corrosion Resisting

	Tube Size	Sleeve OD./In.
00-720-0461	1/2	.309
00-618-7621	3/4	.435
00-684-4041*	2	1.086

\* 12 degree seat angle.

FLARELESS SLEEVE WITH 40 DEGREE SEAT ANGLE.



Steel, Corrosion Resisting

	Tube Size	Sleeve OD./In.
00-800-2585	1/2	.312

## SLEEVE, COMPRESSION, TUBE-HOSE FITTING

STEEL CORROSION RESISTING WITH PASSIVATED SURFACE TREATMENT.

Metallic hardness rating, 31.0 minimum Rockwell C and 39.0 Maximum Rockwell C. Not casehardend. Hose/tube outside diameter, 0.312 inches nominal. Tapered tube gripping style. Overall length, 0.285 inches nominal. Sleeve outside diameter, 0.375 inches nominal.

00-967-9521

DOUBLE BEVELED FLARELESS STYLE.



Aluminum Alloy, Anodized

	Hose/Tube Size/In.	Lg/In.
00-989-3167	1/2	.320

Aluminum Alloy. Not casehardened. No rating for hardness. Outside diameter, 0.250 inches nominal. K4 tapered style. Any acceptable overall length. End Item: Supports Grumman A10 aircraft.

01-016-9923

Brass, Uncoated

	Hose/Tube Size/In.	Lg/In.
00-278-8761	1/4	.188
00-701-7737	3/8	.218
01-193-7390	1/2	.250
00-278-8764	5/8	.250
00-278-8765	3/4	.255

## SLEEVE, FLARED, TUBE FITTING

Flared sleeves with 33 degree seat angle.

Aluminum Alloy 7075, T73, with Anodized surface treatment. Not casehardened. No hardness rating. Outside diameter, 0.375 inches nominal. Style, M1 sleeve. Overall length, 0.500 inches nominal. Flange width, 0.172 inches nominal. Flange outside diameter, 0.502 inches nominal. Sleeve outside diameter, 0.432 inches nominal. SPECIAL FEATURES: Weapon System Essential. End Item: Aircraft, F-16.

01-089-6502

Not casehardened. No hardness rating. Outside diameter, 0.250 inches nominal. Style, M1 sleeve. Overall length, 0.406 inches nominal. Flange width, 0.141 inches nominal. Flange outside diameter, 0.383 inches nominal. Sleeve outside diameter, 0.297 inches nominal. SPECIAL FEATURES: Brown Per MIL-STD-595; color code 30219.

01-077-0858

Steel, Cadmium Plated

	Tube Size/In.	Sleeve OD/In.
00-278-0678	1/2	.297
00-433-3375	5/8	.366
00-433-3376	1	.562
00-277-5357	1-1/4	.690
00-433-3377	1-1/2	.826

Steel, Corrosion Resisting

	Tube Size/In.	Sleeve OD/In.
00-580-7471	1/2	.297
00-595-3102	3/4	.432
00-540-6719	1	.562

## SPUD, WATER CLOSET

Non-reducing type. Furnished with Rubber gasket and metal locknut.



Copper Alloy, External threads.

	NPT
00-221-2398	1.250
00-221-2392*	1.500
00-221-2397	1.500
00-221-2399	2.000

\* Passage inside diameter, 1.375.

## STRAINER ELEMENT, SEDIMENT

Copper Alloy. Single stamped disk filtering media. SPECIAL FEATURES: Weapon System Essential. With threaded center aperture, 6ACME-3G, 7.093 inch diameter; 2.000 inches thick; with 4 0.281 inch equally spaced holes countersunk. 4 10-24NC-3 tapped holes. End ITEM: Fire pumps. Virginia class CGN (41), NIMITZ Class CVN, Ticonderoga Class CG (47), KIDD Class DDG, Forrestal Class CV, Arleigh Burke Class DDG, Spruance Class DD (963)

01-373-6532

Perforated fileting media. Style, A1 cylindrical. End Item, Fuel Control, Engine, Aircraft.

00-991-8117

Aluminum with a mesh filtering media. Mesh size, 200.0. Wire diameter, 0.00210 inches nominal. Cylindrical style. Length, 0.915 inches nominal. Element outside diameter, 0.735 inches nominal. Plain end connection, 1st end.

00-215-1133

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, PLAIN OPEN OTHER END. Copper Alloy filter. 36 perforations per inch, .047 inch diameter. Flange thickness .016 inch.

	Element OD/In.	Flange OD/In.	Flange ID/In.
01-037-0893	1.469	1.750	1.156

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, FLAT CLOSED OTHER END. Steel, 128 mesh size filtering medium. Features with double bail.

	Element OD/In.	Flange OD/In.	Flange ID/In.
00-254-5828	4.750	5.305	4.485

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, FLAT CLOSED OTHER END. Nickel Alloy. 80 mesh size filtering medium. 1.312 inches long, .006 inch wire diameter.

	Element OD/In.	Flange OD/In.
00-277-5288	.281	.531
00-300-7926*	1.750	2.125

\* 6 inches long.

CYLINDRICAL SHAPE. EXTERNAL FLANGE CHAMFERED ONE END, CONVEX OTHER END. Steel, CRES filter. Flange thickness .240 inch. Chamfer angle 37 degrees, mesh size 375, .020 inches. Wire diameter, 450 microns.

	Element OD/In.	Flange OD/In.	Lg/In.
01-046-6807	.219	.502	.875

CYLINDRICAL SHAPE. ONE END EXTERNAL THREAD, 2.000 INCH SIZE; OTHER END INTERNAL SOCKET. Flange thickness .340 inch, mesh size 30, .012 inch wire diameter. Steel, Corrosion Resisting filter.

	Element OD/In.	Flange OD/In.	Flange ID/In.
01-036-7331	3.900	4.000	3.250

CYLINDRICAL SHAPE. PLAIN OPEN ONE END, FLAT CLOSED END. Copper Alloy filter. 400 perforations per inch, .032 inch diameter.

	Element OD/In.	Lg/In.
00-929-3464	.344	.219

CYLINDRICAL SHAPE. PLAIN OPEN ENDS.

Plastic filtering medium

	OD/In.	Lg/In.	Pref Dia/In.
01-075-5071	1.250	3.500	.094

Steel, Corrosion Resisting filtering medium

	OD/In.	Lg/In.	Mesh Size/In.
01-076-9359*	1.078	2.609	—
00-536-0338	7.563	7.375	4

\* 24 perforations per inch, .062 inch diameter.

FRUSTRUM SHAPED, WIRE MESH TYPE. EXTERNAL FLANGE BOTH ENDS. Inverted cone strainer from small end to large end with 100 size mesh. Corrosion Resisting Steel wire.

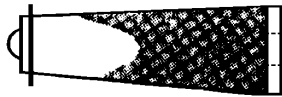
# CLASS 4730

Steel, Corrosion Resisting, rings

	Flange OD Large End/In.	Flange OD Small End/In.	Lg/In.
00-886-8203	2.305	1.250	5.750
01-122-4293*	5.250	4.375	11.719

\* Nickel Alloy filtering, medium

FRUSTRUM SHAPED, WIRE MESH TYPE. INTERNAL FLANGE and FLAT CLOSED END. 100 size mesh, Nickel Alloy wire.



	Flange OD Large End/In.	Flange OD Small End/In.	Lg/In.
00-202-8880	1.516	1.350	5.220

RECTANGULAR SHAPE (BASICALLY FLAT). Steel filter. 6 mounting holes spaced 7.125 inches center to center, .750 inches from outside edge along the width, .438 inches from outside edge along the length. Wire diameter .024 inches, mesh size 8.

	Lg/In..	W/In.	Thk/In.
00-745-7786	15.750	5.312	.156

ROUND (BASICALLY FLAT) SHAPE STRAINER ELEMENT.

Steel filtering medium

	OD/In.	Thk/In.	Perf Dia/In.
00-595-0792	2.219	.038	.250

ROUND (BASICALLY FLAT) WITH CENTER OPENING.

Nickel Alloy filter

	OD/In.	ID/In.	Thk/In.	Mesh/In.
00-541-9089*	.320	.160	.038	80

\* Non Spec Item.

Steel, Corrosion Resisting filter.

	OD/In.	ID/In.	Thk/In.	Mesh/In.
00-432-1293	1.875	.719	.156	65

SQUARE SHAPE. 19.500 inch Stainless Steel. .28 inch overall length, 80 mesh, .007 inch diameter wire, .0055 inch opening.

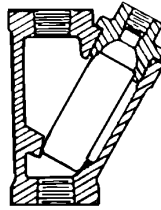
00-073-3164

## STRAINER, SEDIMENT

Y-PATTERN STRAINERS FOR SMALL BRANCH STEAM LINES.

WIRE MESH SCREEN TYPE. Cast Iron or semi-Steel body with Copper Alloy or Nickel-Copper Alloy removable screen. 250 PSI steam WP at 425 degrees Fahrenheit.

Threaded internal inlet and outlet connection, with clean out connection.



NPT

00-278-2607 2-11-1/2

## STRAINER, SUCTION

Style, C26 suction type blunt end. Body outside diameter, 0.688 inches nominal. UNC threads. Nominal thread size, 0.687 inches. Copper Alloy body. SPECIAL FEATURES: Weapon System Essential. End Item: Forrestal Class CV.

00-991-8624

## SWING JOINT, TUBE

THREADED EXTERNAL TUBE, FLARED BOTH ENDS. SINGLE JOINT ELBOW DESIGN. BULKHEAD TYPE. 37 degree seat angle (Bulkhead end 1 below).

	End	Tube Size/In.	Thd Size
00-627-4324	1	1/2	7/16 UNJF

## SWIVEL JOINT, HYDRAULIC

STEEL CORROSION RESISTING OVERALL. Single joint elbow. Threaded external tube 1st end. Threaded external boss 2nd end. Flareless 1st end connection and double threaded section with gasket and locknut sealing 2nd end. 12.0 degrees seat angle 1st end. Nominal outside diameter tube accommodated, 0.250 inches 1st end. UNF threads 1st and 2nd ends. Nominal thread size, 0.438 inches 1st and 2nd end. Thread class, 2A both ends. Leg length, 1.312 inches nominal 1st end and 1.375 inches nominal 2nd end. SPECIAL FEATURES, Second end bulkhead, UNF, 0.438 inch thread size 2A class.

00-872-6776

## TEE, BOSS

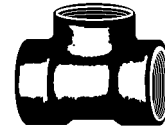
THREADED INTERNAL SCREW THREADS. ALL THREE ENDS IDENTICAL.

Steel, Corrosion Resisting

	UNJF
00-247-0519	7/16-20

## TEE, PIPE

THREADED INTERNAL NATIONAL PIPE THREADS. ALL THREE ENDS IDENTICAL. 125 PSI steam WP at 406 degrees Fahrenheit temperature.



Copper Alloy

	NPT
00-289-2870	1/8-27
00-254-6243	1/4-18
00-287-1391	3/8-18
00-254-6241	1/2-14
00-254-6238	3/4-14
01-126-0203	1--11-1/2
00-289-2875	1-1/2--11-1/2

Malleable Iron, Zinc Coated. 150 PSI steam WP.

	NPT	Leg Lg/In.
00-257-2120	3/4-14	1.310
00-257-2124	2--11-1/2	2.250

Steel, Uncoated. 1000 PSI steam WP at 900 degree Fahrenheit temperature.

	NPT	Leg Lg/In.
00-263-5264*	1/4-18	.969

\* Non Spec Item.

UNTHREADED INTERNAL SOCKET TYPE ENDS. All ends identical. 600 PSI steam WP.



Steel

	Pipe Size	Leg Lg/In.
00-257-2144	1/4	.812
00-257-2146	1/2	1.000
00-257-2147	3/4	1.250
00-257-2148	1	1.375
00-257-2150	1-1/2	1.750
00-257-2151	2	2.125

Steel. 1500 PSI steam WP.

	Pipe Size	Leg Lg/In.
00-595-3970	1/2	1.000
00-595-3972	1	1.375

Steel. 3000 PSI WOG WP.

	Pipe Size	Leg Lg/In.
00-840-8721	1/2	1.125

UNTHREADED INTERNAL, STREAMLINED WITH BRAZING RINGS (Rings packaged separately). 200 PSI steam. Equal size ends and reduced ends listed in inches.

Copper Alloy



# CLASS 4730

	End 1	End 2	End 3
00-542-5246	.250	.250	.250
00-542-5347	.500	.250	.500
00-542-5358	1.000	.750	.500
00-542-5361	1.000	1.000	.250
00-542-5250	1.000	1.000	1.000
00-542-5251	1.250	1.250	1.250
00-542-5382	1.500	1.500	.500
00-542-5252	1.500	1.500	1.500
00-542-5395	2.000	2.000	1.500
00-542-5253	2.000	2.000	2.000
00-542-5257	4.000	4.000	4.000

Long turn single sweep tee.

	End 1	End 2	End 3
00-542-5335	4.000	4.000	4.000

UNTHREADED INTERNAL SOCKET, GROOVED W/BRAZING RINGS (Rings packaged separately). 200 PSI steam. Equal size ends and reduced ends listed in inches.

Copper Alloy

	End 1	End 2	End 3
00-542-5247	.375	.375	.375
00-542-5348	.500	.500	.250
00-542-5248	.500	.500	.500
00-542-5261	.500	.500	.500
00-542-5262	.750	.750	.750
00-542-5401	2.500	2.500	2.000
00-542-5254	2.500	2.500	2.500
00-542-5255	3.000	3.000	3.000
00-542-5256	3.500	3.500	3.500

Long turn single sweep tee.

	End 1	End 2	End 3
00-542-5331	2.000	2.000	2.000

## TEE, PIPE TO TUBE

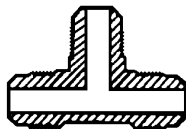
THREADED EXTERNAL TUBE, FLARED ON RUN TO THREADED EXTERNAL PIPE ON BRANCH. 37 degree seat angle.

Steel, Cadmium Plated.

	Tube Size	UNF	NPTF
00-277-5104	3/4	9/16	1/4

## TEE, TUBE

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARED TYPE ENDS. ALL THREE ENDS IDENTICAL. 37 degree seat angle.



Aluminum Alloy, Anodized

	UNJF	Tube OD/in.
00-722-1207	7/16-20	1/2

Aluminum Alloy, Anodized. Threaded external tube all ends. Flared, all ends. 37 degree seat

angle. Nominal outside diameter tube accommodated, 0.250 inches all ends. UNF threads all ends and UNF 3rd end bulkhead. Nominal thread sized, 0.438 inches all ends and 0.438 inches 3rd end bulkhead. Thread class, 3A all ends and 3A 3rd end bulkhead. Leg length, 0.953 inches nominal 1st end. 0.953 inches nominal 2nd end. 1.578 inches nominal 3rd end.

00-277-5107

Copper Alloy

	UNJF	Tube OD/in.
00-850-3828*	7/16-20	1/2
* UNF Thread, Non Spec Item.		

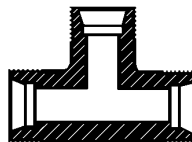
Steel, Cadmium Plated.

	UNJF	Tube OD/in.
00-278-9376	7/16-20	1/2

Copper Alloy. 45 degree seat angle. Non Spec Item.

	UNF	Tube OD/in.
00-092-3883	7/16-20	1/2
00-287-1701	5/8-18	3/4
00-287-1703	3/4-16	1

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARELESS TYPE ENDS. ALL THREE ENDS IDENTICAL.

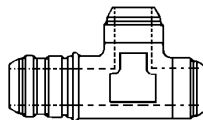


20 DEGREE SEAT ANGLE. Non Spec Item.

Steel, Corrosion Resisting

		Tube OD/in.
00-684-3796	7/16-20 UNF	1/2
00-061-7716	9/16-18 UN	3/4
00-061-7717*	3/4-20 UNEF	1
* 12 degree seat angle.		

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARED TYPE ENDS WITH BULKHEAD TYPE ON FIRST RUN END. 37 degree seat angle.



Aluminum Alloy, Anodized

	UNJF	Tube OD/in.
00-720-4984	7/16-20	1/2

THREADED EXTERNAL FLARED ALL ENDS.

STEEL COMPOSITION, PASSIVATED

37.0 degree seat angle all ends. Nominal outside diameter tube accommodated, 0.375 inches all ends. UNF threads all ends. Thread class, 3A all ends. Leg length, 1.031 inches nominal all ends.

00-834-5667

TITANIUM ALLOY OVERALL

THREADED EXTERNAL ALL ENDS WITH INVERTED FLARE ALL ENDS. 90 degree angle. 37 degree seat angle.

	UNJS	Tube OD/in.
00-004-7021	9/16	0.375

THREADED INTERNAL SWIVEL NUT FLARE ONE END, AND THREADED EXTERNAL FLARED TUBE OTHER ENDS. 37 degree seat angle all ends. 1/2 inch outside diameter tube size.

Steel Composition, Passivated

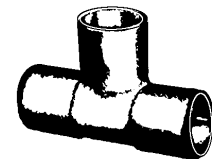
00-720-1810 7/16-20 UNF Threads

THREADED INTERNAL SWIVEL NUT FLARELESS ONE END, AND THREADED EXTERNAL FLARELESS TUBE OTHER ENDS. 12 degree seat angle. 1/2 inch outside diameter tube size.

Steel Composition

01-230-0960 7/16-20 UNJF Threads

UNTHREADED INTERNAL SOCKET TYPE ENDS, COPPER-TO-COPPER. Dimensions listed in inches.



Copper or Copper Alloy

	End 1	End 2	End 3
00-257-2163	.250	.250	.250
00-263-6460	.375	.375	.375
00-263-6465	.500	.500	.500
00-263-6472	.625	.625	.625

UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES, ALL ENDS IDENTICAL. The internal surface of the permaswage will be plastic coated.

Steel, Corrosion Resisting

	Tube Size
00-008-9832	1/2
00-008-9834	3/4

# CLASS 4730

## TEE, TUBE TO BOSS

THREADED INTERNAL BOSS, GASKET SEAL, FIRST END. THREADED EXTERNAL BOSS, FLARED WITH GASKET SEAL, SECOND END. THREADED EXTERNAL TUBE, FLARED WITH 37 DEGREE SEAT ANGLE BULKHEAD (BRANCH) END.

Aluminum Alloy, Anodized

	UNF	Tube Size
00-720-4407	7/16-20	1/2

TRAP, STEAM

THERMOSTATIC DESIGN. ANGLE PATTERN. 100 PSI STEAM WP. Brass, Bronze, or Copper-Nickel Alloy body and Corrosion Resisting parts, union nut, strainer, unthreaded internal tailpiece inlet and outlet connection. Inlet connection located on side and outlet on bottom in relation to installed position.

	Pipe Size
00-289-4619	1/2

Bronze body, Steel, Corrosion Resisting working parts. End connection with union ends, and Silver-brazing tailpieces. Inlet/outlet location in reference to installed position, inlet top end, outlet center side.

	Pipe Size
00-032-1517	1/2

END CONNECTION WITH UNION ENDS AND SILVER-BRAZING TAILPIECES. Inlet/outlet location in reference to installed position, inlet top end, outlet bottom end. Bronze body and cap, Brass strainer. Steel, Corrosion Resisting valve head and gunmetal working parts.

	Pipe Size
00-343-7024	1/2

## TRAP, STEAM

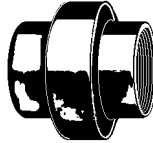
Body design, straight horizontal pattern. Inlet/outlet connection similarity, Identical. Inlet/outlet connection nominal pipe size, 0.375 inches. Inlet/outlet connection type, female Iron pipe. Inlet/outlet connection thread provision,

threaded. NPT Right-hand threads. Inlet location in relation to installed position, lower side. Outlet location in relation to installed position, lower side.

01-147-5634

## UNION, PIPE

THREADED INTERNAL NPT THREADS. Ball-cone seat, 250 PSI steam WP.



Copper Alloy

	NPT	Lg/In.
00-287-0421	1/8-27	1.440
00-189-2588	1/4-18	1.560
00-287-0422	3/8-18	1.750
00-289-5091	1/2-14	1.990
00-287-0420	3/4-14	2.130
00-189-2592	1-11-1/2	2.438
00-289-5506	1-1/2-11-1/2	2.800
00-189-2595	2-11-1/2	3.190

Malleable Iron or Steel, Black. Brass or Bronze ground joint seat. 250 PSI steam WP.

	NPT	Lg/In.
00-189-2624	1-1/2-11-1/2	2.780
00-189-2619	2-11-1/2	3.130

Malleable Iron or Steel, Zinc Coated. Copper Alloy ground joint seat. 250 PSI steam WP.

	NPT	Lg/In.
00-189-2634	2-11-1/2	3.130

Steel, Forged. Beveled Steel seat, 3000 PSI WOG WP.

	NPT
00-222-1862	1/2-14
00-222-1866	1-1/2--11-1/2

UNTHREADED INTERNAL SOCKET TYPE ENDS.



Copper Alloy. Beveled seat. 200 PSI steam.

	Pipe Size
01-140-4853	1/4

Steel. Beveled seat. 3000 PSI WOG WP.

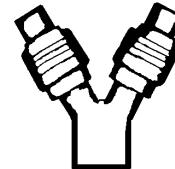
	Pipe Size	Lg/In.
01-023-7729	1/2	1.938

UNTHREADED INTERNAL SOCKET WITH GROOVE, BEVELED SEAT. Copper Alloy 200 PSI steam WP.

	Pipe Size
00-542-5189	3/8
00-542-5190	1/2
00-542-5191	3/4
00-542-5192	1
00-542-5193	1-1/4
00-542-5194	1-1/2
00-542-5195	2

## WYE, QUICK DISCONNECT

BOWES TYPE. Twist-lock disconnect coupling. For use on air hose.



Cast Bronze body and Brass couplings. Consisting of one internal inlet and two external outlets. Used with 7/16 inch, 1/2 inch, and 5/8 inch hose.

00-288-8802

# GROUP 48

## VALVES

### CLASS 4810

### VALVES, POWERED

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### VALVE, SOLENOID

Copper alloy overall, A7 angle style. Poppet flow control device. Fuel/oil, hydrocarbon single response. Maximum operating pressure 4000.0 pounds per square inch single response. Maximum operating temperature 275.0 degrees Fahrenheit single response. Valve operation method solenoid, voltage in volts 30.0 DC. Closed flow control device, threaded internal tube all ends. All ends, connection style G5A flare, thread series UNJ, 1.312 inches nominal thread size, thread class 3B, thread direction right hand. Mounting position vertical, aperture diameter 1.336 inches nominal.

00-484-3760

Steel corrosion resisting overall, A1 straight style. Disk flow control device. Fuel/oil, hydrocarbon single response. Maximum operating pressure 350.0 pounds per square inch single response. Maximum operating temperature 130.0 degrees Fahrenheit single response. Valve operation method solenoid. Closed flow control device, threaded external tube first and second ends. Connection style G42 flared second end, thread series UNF first and second ends, 0.437 inches nominal thread size first end and 0.312 inches second end, thread class 3A and thread direction right hand for first and second ends. Thread quantity per inch 24 for second end. Mounting position horizontal or vertical.

00-688-7866

Steel corrosion resisting overall, A1 straight style. Disk flow control device. Face to face distance 4.500 inches, valve size 0.750 inches. Valve operation method solenoid. Closed flow control device, connection type flange first end, flange shape round with holes in first end. First end, nominal outside diameter 3.812 inches, nominal thickness 0.437 inches, bolt hole quantity 4, bolt hole nominal diameter 0.562 inches, bolt circle nominal diameter 2.062 inches, flange face plain. Mounting position horizontal.

00-914-6105

Copper alloy body, A2 cross style. Disk flow control device. Water-oil-gas single response media. Maximum operating pressure 300.0 pounds per square inch single response. Maximum operating temperature 200.0 degrees Fahrenheit single response. Valve operation method solenoid, voltage in volts 60.0, single phase. Universal flow control device, threaded internal boss all ends. All ends, connection style G4 gasket seal, thread series UNF, 0.562 inches nominal thread size, thread class 2B, thread direction right hand. Mounting position vertical, high shock housing.

01-109-3160



## CLASS 4820 VALVES, NONPOWERED

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### CAGE, VALVE

01-345-3828

Copper Alloy. Outside diameter, 1.250 inches nominal. Overall length, 2.468 inches nominal. SPECIAL FEATURES: Steel Spring, External Equalizer, Media Refrigerant.

AUTOMOTIVE TYPE

01-161-5113

Threaded male pipe inlet. Copper Alloy. For use in fluid piping systems up to 150 PSI pressure. Thread type and size listed.

Straight Internal Seat

### CAP, VALVE

Copper Alloy. Outside diameter, 2.750 inches nominal. Height, 0.183 inches nominal. SPECIAL FEATURES: Integral Screen.

01-104-6251



### CARTRIDGE, SAFETY RELIEF VALVE

Steel CRES. Spring loaded plunger, rectangular mounting flange 0.440 inches wide by 1.231 inches long with two 0.203 inch diameter holes spaced 0.900 inches center to center. 0.409 inch body diameter. 1.865 inches overall length.

Size

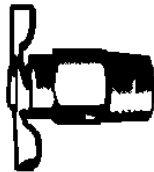
00-684-0880	1/8-27 NPTF
00-720-4488	1/4-18 NPTF
00-174-0339	3/8-18 NPTF

01-134-7674

Straight External Seat

### CARTRIDGE, SHUT-OFF VALVE

Copper alloy, maximum operating pressure 6000.0 pounds per square inch, maximum operating temperature 225.0 degrees Fahrenheit.



Size

01-228-1028*	1/8 NPT
00-752-9040	1/8-27 NPTF
00-849-1220	1/4-18 NPTF
00-276-9041	3/8-18 NPT

\* Disc or stem type.

	Valve Size	Port Dia
00-962-2739	0.375 In.	0.438 In. Nom
01-150-0860	0.750	0.625

Straight External Seat

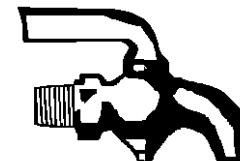
BIBB TYPE

### COCK, DRAIN

Aluminum Alloy overall. A16 straight through style. Plug flow control device. Manual valve operation. Connection type, threaded external tube 1st end. Connection style, B46A plain 1st end. UN threads 1st end. Nominal thread size, 1.062 inches 1st end. Thread quantity per inch, 12 1st end. Thread class, 3A 1st end, Right-hand direction.

Threaded male pipe inlet. Brass body. Angle type with level handle. 150 PSI steam service.

01-123-2904



Size

A3 straight through style. Manual valve operation. Connection type, threaded internal tube all ends. Connection style, B5A flare all ends. Nominal outside diameter tube accommodated, 0.250 inches all ends. UNJF threads all ends. Thread class, 3A all ends, Right-handed all ends.

00-272-3332	1/8-27 NPTF
00-272-3333	1/4-18 NPT
00-272-3335	1/2-14 NPT

# CLASS 4820

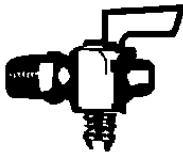
Threaded male pipe inlet. Copper. T-handle with hose bib, that accommodates 3/8 inch inside diameter hose. Has 150 PSI liquid/gas rating.



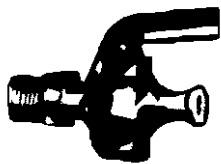
Size  
00-845-1096 1/4-18 NPTF

PET TYPE

Threaded male pipe inlet. Copper Alloy. For use in liquid or gas systems, up to pressures as indicated below.



50 PSI  
Size  
00-555-9761 1/8-27 NPTF  
00-287-4268 1/4-18 NPTF  
00-272-3346 3/8-18 NPTF  
00-272-3347 1/2-14 NPTF



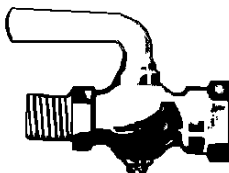
125 PSI  
Size  
00-826-2190 1/8-27 NPT  
00-197-4984 1/4-18 NPT

## COCK, PLUG

TWO WAY, TWO PORT, 360 DEGREE PLUG TURN.

FEMALE to MALE

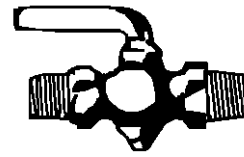
Threaded female and male pipe ends. Copper body. For use with fluid or gas to 125 PSI pressure. Ground Key Lever Handle.



00-274-3647 1/4-18 NPT  
00-287-5617 3/8-18 NPT

MALE ENDS

Threaded male pipe ends. Bronze body. For use in steam systems to 125 PSI pressure.



00-541-7567\* 1/4-18 NPT  
00-289-1020\* 3/8-18 NPTF  
\* Non-spec.

## COCK, POPPET DRAIN

Aluminum Alloy body. Steel CRES flow control device. Steel CRES seat with Anodized surface treatment. Poppet flow control device, Media for which designed, Fuel/oil, hydrocarbon single response. Manual valve operation. Connection type, threaded external boss 1st end. Connection style, B50 external seat for gasket seal 1st end. UNEF threads 1st end. Nominal thread size, 1.000 inches 1st end. Thread class, 3A 1st end, Right-hand direction. Renewable seat ring type, threaded.

01-025-8126

A15 angle style. Manual valve operation. Connection type, unthreaded external tube 1st end. Connection style, B61A grooved 1st end. Nominal outside diameter tube accommodated, 0.357 inches 1st end. Includes 1 cap and 1 chain.

01-136-7813

Aluminum overall. Manually operated poppet valve. Threaded external boss connection, with external seat for gasket seal.

01-114-6672 3/4 UNJF-3A

Aluminum Alloy body with Anodized surface treatment. Poppet flow control device. Manual valve operation. Threaded external tube 1st end. 37 degree seat angle, 1st end. Nominal outside diameter tube accommodated, 0.750 inches 1st end. UN threads 1st end, size 1.500 inches. Thread quantity per inch, 12, 1st end. Thread class, 3A 1st end, Right-hand direction. SPECIAL FEATURES: Body style, straight through.

00-716-4001

## COCK, SHUTOFF, SCREW STEM

Disk flow control device. Manual valve operation. Connection type, unthreaded external hose all ends. Connection style, B62 beaded all ends. Nominal inside diameter hose accommodated, 0.330 inches all ends.

01-323-5034

"T" ANGLE TYPE-MALE ENDS.

Copper Alloy overall. Manually operated. First end compression type, with .062 inch seat radius and 7/16-24 UNS threads. Second end plain, 1/8-27 NPT threads. Ferrule furnished.

00-391-3782

## COMPRESSOR, VALVE

Steel. Outside diameter, 2.800 inches. Overall height, 2.070 inches. Consists of semi-circular slots through upper and lower valve plates.

01-126-5160

## DIAPHRAGM, ACTUATOR VALVE, SPECIAL SHAPED

Fiber and Plastic, Polyvinyl. G51 special shaped style. Outside diameter, 2.175 inches nominal. Material thickness, 0.025 inches nominal. Center hole diameter, 0.200 inches nominal. Bead diameter, 1.567 inches nominal. Any acceptable media. No rating for pressure or temperature.

01-214-1726

Plastic

G69 special shaped. Any acceptable media. Pressure rating, 250.0 PSI nominal. No temperature rating. SPECIAL FEATURES: Used on 1.500 inch 22M 250 pound back pressure regulating valve.

01-378-5888

Rubber

G65 special shaped style. Shank diameter, 0.953 inches nominal. Outside diameter, 1.370 inches nominal. Overall height, 0.484 inches nominal. Center hole diameter, 0.094 inches nominal. Any acceptable media. No rating for pressure or temperature.

01-168-2795

Rubber Impregnated Fabric

Hole diameter, 0.525 inches nominal. Outside diameter, 11.265 inches nominal. Bolt circle diameter, 9.648 inches nominal. Material thickness, 0.132 inches nominal. Venter hole diameter, 0.875 inches nominal. Bead diameter, 5.700 inches nominal. 10 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-441-5124

Rubber, Synthetic

Hole diameter, 0.335 inches nominal. Outside diameter, 7.090 inches nominal. Bolt circle diameter, 6.415 inches nominal. Material thickness, 0.128 inches nominal. Center hole diameter, 0.500 inches nominal. Bead diameter, 4.500 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature. SPECIAL FEATURES: Fabric reinforced.

00-441-5085

Hole diameter, 0.435 inches nominal. Outside diameter, 12.000 inches nominal. Bolt circle diameter, 11.315 inches nominal. Overall height, 1.468 inches nominal. Material thickness, 0.108 inches nominal. Taper minor diameter, 7.780 inches nominal. Taper major diameter, 8.725 inches nominal. 14 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-630-9271

Rubber, Synthetic Fabric Reinforced

Hole diameter, 0.420 inches nominal. Outside diameter, 12.000 inches nominal. Bolt circle diameter, 11.375 inches nominal. Overall height, 1.500 inches nominal. Material thickness, 0.115 inches nominal. Taper minor diameter, 7.500 inches nominal. Taper major diameter, 8.250 inches nominal. Bead diameter, 9.000 inches nominal. 14 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-670-2485

## DIAPHRAGM, VALVE, FLAT

Fiber

Flat style. Outside diameter, 6.750 inches nominal. Material thickness,

0.026 inches nominal. Center hole diameter, 1.000 inches nominal. No rating for pressure or temperature. Any acceptable media.

00-036-1699

Nickel Copper Alloy

Flat style. Outside diameter, 2.515 inches nominal. Material thickness, 0.032 inches nominal. Any acceptable media. No rating for pressure or temperature. SPECIAL FEATURES: For Leslie controls pressure regulating valve, size 2.000 inches.

00-949-8240

Rubber

Hole diameter, 0.310 inches nominal. Outside diameter, 4.515 inches nominal. Bolt circle diameter, 3.960 inches nominal. Material thickness, 0.074 inches nominal. 4 bolt holes. Any acceptable media. No rating for pressure or temperature. SPECIAL FEATURES: Peripheral Holes Are Open To Edge.

01-036-0728

Flat style. Hole diameter, 0.185 inches nominal. Outside diameter, 3.125 inches nominal. Bolt circle diameter, 2.688 inches nominal. Material thickness, 0.048 inches nominal. Center hole diameter, 0.250 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-216-9018

Rubber and Polyamide Nylon

Flat style. Hole diameter, 0.171 inches nominal. Outside diameter, 3.145 inches nominal. Bolt circle diameter, 2.472 inches nominal. Material thickness, 0.032 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-411-2039

Rubber Chloroprene

G49 flat style. Hole diameter, 0.328 inches nominal. Outside diameter, 6.150 inches nominal. Bolt circle diameter, 5.360 inches nominal. Material thickness, 0.125 inches nominal. Center hole diameter, 0.377 inches nominal. 8 bolt holes. Media for which designed, seawater. Pressure rating, 150.0 PSI nominal. No temperature rating. End Item: TRAC Regulator Co Pressure Reducing Valve Type 2 Style H.

01-181-8705

Rubber, Synthetic

Flat style. Hole diameter, 0.505 inches nominal. Outside diameter, 8.750 inches nominal. Bolt circle diameter, 7.688 inches nominal. Material thickness, 0.048 inches nominal. Center hole diameter, 0.625 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-216-9013

Flat style. Outside diameter, 1.688 inches nominal. Material thickness, 0.026 inches nominal. Center hole diameter, 0.375 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-343-6957

Flat style. Hole diameter, 0.738 inches nominal. Outside diameter, 11.000 inches nominal. Bolt circle diameter, 9.625 inches nominal. Material thickness, 0.150 inches nominal. Center hole diameter, 0.722 inches

# CLASS 4820

nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-035-9897

Flat style. Hole diameter, 0.375 inches nominal. Outside diameter, 6.310 inches nominal. Bolt circle diameter 5.560 inches nominal. Material thickness, 0.500 inches nominal. Center hole diameter, 0.625 inches nominal. 8 bolt holes.

00-035-9916

Flat style. Outside diameter, 3.215 inches nominal. Material thickness, 0.027 inches nominal. Any acceptable media. No rating for pressure and temperature.

00-036-1545

Flat style. Outside diameter, 4.906 inches nominal. Material thickness, 0.034 inches nominal. Center hole diameter, 0.500 inches nominal. Any acceptable media. No rating for pressure or temperature. SPECIAL FEATURES: Fabric reinforced.

00-036-1640

Flat style. Hole diameter, 0.200 inches nominal. Outside diameter, 3.125 inches nominal. Bolt circle diameter, 2.688 inches nominal. Material thickness, 0.025 inches nominal. Center hole diameter, 0.375 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-349-7137

Rubber, Synthetic, Fabric Reinforced

Flat style. Hole diameter, 0.750 inches nominal. Outside diameter, 12.875 inches nominal. Bolt circle diameter, 11.750 inches nominal. 12 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-216-9022

Rubber, Synthetic, Nylon Reinforced.

Flat style. Hole diameter, 0.312 inches nominal. Outside diameter, 5.219 inches nominal. Bolt circle diameter, 4.719 inches nominal. Material thickness, 0.050 inches nominal. Center hole diameter, 0.438 inches nominal. 8 bolt holes. Any acceptable media. No rating for pressure or temperature.

00-306-1213

## DISK, RUPTURABLE

Aluminum. Burst pressure, 75.0 pressure pounds per square inch gage.

01-256-5403

Nickel Alloy. Concave shape. Disk size, 4.000 inches. Burst pressure, 12.0 Pressure pounds per square inch gage. SPECIAL FEATURES: Includes Teflon seal and Monel vacuum support section.

00-512-3733

## DISK, VALVE

Brass, Comp 22

Poppet style. Shank diameter, 0.555 inches nominal. Flange diameter, 1.243 inches nominal. Overall height, 1.315 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-036-1559

Bronze

G8 solid style. Outside diameter, 4.125 inches nominal. Overall height, 0.750 inches nominal. Media for which designed, seawater. No rating for pressure or temperature.

01-373-6708

Nickel Copper Alloy

G16 plug style. Outside diameter, 0.622 inches nominal. Overall height, 0.793 inches nominal. 60.0 degree seat angle. UNF threads. Nominal thread size, 0.190 inches. 2B thread class, Right-hand direction. Any acceptable media. 150.0 PSI nominal. No temperature rating.

01-091-4066

G48 butter fly style. Outside diameter, 5.000 inches nominal. Media for which designed, Fresh water or salt water or oil. Pressure rating, 200.0 PSI nominal. Temperature rating, 180.0 degrees Fahrenheit.

01-180-2194

G48 butter fly style. Outside diameter, 8.000 inches nominal. Media for which designed, Fresh water or salt water or oil. Pressure rating, 200.0 PSI nominal. No temperature rating.

01-168-3756

Plastic

Plain style. Inside diameter, 0.159 inches nominal. Outside diameter, 0.540 inches nominal. Overall height, 0.156 inches nominal. Shoulder height, 0.062 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-466-7770

Polyamide Nylon

Plain style. Inside diameter, 0.215 inches nominal. Outside diameter, 0.798 inches nominal. Overall height, 0.193 inches nominal. Shoulder height, 0.090 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-557-7918

Rubber

Plain style. Inside diameter, 2.062 inches nominal. Outside diameter, 3.062 inches nominal. Overall height, 0.344 inches nominal. Media for which designed, water. Pressure rating, 250.0 pounds per square inch nominal. No temperature rating.

00-142-2134

Plain style. Inside diameter, 2.599 inches minimum and 2.651 inches maximum. Outside diameter, 3.609 inches minimum and 3.641 inches maximum. Overall height, 0.339 inches minimum and 0.349 inches maximum. Any acceptable media. No rating for pressure or temperature.

00-440-5361

G1 plain style. Inside diameter, 0.750 inches nominal. Outside diameter, 2.500 inches nominal. Overall height, 0.312 inches nominal. Any acceptable media. No rating for pressure or temperature.

01-179-6591

Rubber, synthetic



Plain style. Inside diameter, 7.220 inches minimum and 7.280 inches maximum. Outside diameter, 8.845 inches minimum and 8.905 inches maximum. Overall height, 0.495 inches minimum and 0.505 inches maximum. Any acceptable media. No rating for pressure or temperature.

00-580-2198

Solid style. Outside diameter, 0.500 inches nominal. Overall height, 0.125 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-036-1687

Solid style. Outside diameter, 0.957 inches nominal. Overall height, 0.133 inches nominal. Media for which designed, Oil. Pressure rating, 250.0 PSI nominal. Temperature rating, 180.0 degrees Fahrenheit.

00-277-1749

G1 plain style. Inside diameter, 0.969 inches nominal. Outside diameter, 2.000 inches nominal. Overall height, 0.375 inches nominal. Media for which designed, steam or water. Pressure rating, 250.0 PSI nominal. Temperature rating, 280.0 degrees Fahrenheit nominal. SPECIAL FEATURES: Used on Bronze angle valve size 1.500 inches.

01-202-8656

Steel, Corrosion Resisting

Cone check style. Shank diameter, 0.250 inches nominal. Flange diameter, 0.440 inches nominal. Overall height, 0.384 inches nominal. Flange seat to disk end height, 0.350 inches nominal. Under flange height, 0.034 inches nominal. 45 degree seat angle. Any acceptable media. No rating for pressure or temperature.

00-036-1644

Poppet style. Overall height, 5.000 inches nominal. Flange seat to disk end height, 2.250 inches nominal. Any acceptable media. No rating for pressure or temperature.

00-036-1532

Steel Stainless

G5 plain style. Inside diameter, 0.312 inches nominal. Outside diameter, 2.000 inches nominal. Overall height, 0.380 inches nominal. Shoulder height, 0.060 inches nominal. Nominal thread size, 0.312 inches. SPECIAL FEATURES: Diffuser check valve; center hole 0.312 inches NP Tap. End Item: Navy Weapon System Code JA, NIMITZ Class CVN; W.S. Darley Co., P-100 Centrifugal Pump.

01-431-9119

## FITTING, TEST VALVE

General characteristics item description, media seawater. End Item: CLA-Valve Company Globe Valve Model Number, 100PM.

01-261-0212

## HANDLE, VALVE

Cast aluminum. Diameter, 2.500 inches; cross 4 point design. Thickness, 0.530 inches. Center hole diameter, 0.250 inches.

00-654-2938

## LOCKING DEVICE, VALVE

Consists of wire braided 0.125 inch diameter Nickel Copper Alloy; bolt-eye spacer 0.250 inches by 2.000 inch locked open.

01-116-3791

## PARTS KIT, CHECK VALVE

9 components. including packing, preformed 2; ID part kit 1; assembly note 2; disk 1; diaphragm 1; spring 1; gasket 1.

01-218-3469

## PARTS KIT, GLOBE VALVE

4 Components

Comprised of 1 packing nut, 1 graphite packing, 1 valve bonnet and 1 valve stem.

00-036-1526

9 Components

Comprised of 1 cap, 1 washer, 1 stem, 1 washer, 1 bearing, 1 diaphragm set, 1 handwheel, 1 washer and 1 screw.

00-036-1323

## PARTS KIT, VALVE

Model H-46 helicopter.

00-780-5944

## PARTS KIT, VALVE TRAP

10 components

Comprised of 1 case seal ring, 1 pilot valve screw assembly, 1 valve disk, 1 sleeve seal, 1 male piston disk, 1 female piston disk, 1 piston seal, 1 pivot pin, 1 retainer clip and 1 lubricant.

00-112-0079

## PISTON, VALVE

Valve size, 0.500 inches. Pressure reducing type. Overall length, 1.688 inches nominal. Outside diameter, 0.785 inches minimum and 1.740 inches maximum. Inside diameter, 0.429 inches nominal. End Item: Leslie Company, Pressure reducing valve, 1/2-4 inch size, class LNS-5.

00-036-1516

## PLATE, THROTTLING

General characteristics items description, Cadmium plated Steel; 4.036 inch outside diameter; 1.389 inch inside diameter; 9 equally spaced teeth on one side. Includes 2 bolts, 2 nuts and 2 lock washers.

01-200-3186

## RETAINER, DISK, VALVE

Outside diameter, 1.500 inches nominal. SPECIAL FEATURES: Monel; 0.219 inches thick; 0.378 inch diameter center hole grooved on one side; 1.219 inch outside diameter, 0.500 inch inside diameter, 0.125 inches thick.

# CLASS 4820

00-790-4862

## SEAT, VALVE

Body inside diameter, 0.750 inches minimum and 0.753 inches maximum. Flange seat to disk end height, 0.203 inches nominal. Under flange height, 0.360 inches minimum and 0.391 inches maximum. Nickel Alloy R-405 overall. No hardness rating. Angular seating surface. 5.000 degree seat angle nominal. Thread series, UN single threaded portion. Nominal thread size, 0.938 inches single threaded portion. Thread quantity per inch, 16 single threaded portion. Thread class, 3A single threaded portion. Thread length, 0.360 inches minimum and 0.391 inches maximum single threaded portion.

00-334-3829

### PLAIN

Overall height, 2.660 inches nominal. Body outside diameter, 9.760 inches nominal. Body inside diameter, 8.000 inches nominal. Rubber BUNA N seat. No hardness rating. Flat seating surface shape.

01-207-0468

Overall height, 2.270 inches nominal. Body outside diameter, 6.500 inches nominal. Body inside diameter, 5.000 inches nominal. Rubber, Synthetic overall. No hardness rating. Flat seating surface shape. SPECIAL FEATURES: Stem hole through two sides of outer periphery for butterfly disk.

00-412-3505

Overall height, 0.048 inches minimum and 0.050 inches maximum. Body outside diameter, 0.429 inches minimum and 0.430 inches maximum. Body inside diameter, 0.257 inches minimum and 0.258 inches maximum. Nylon overall. No hardness rating. Angular seating surface shape. 90.000 degree seat angle nominal.

00-445-4422

### PLAIN, FLANGED

Corrosion Resisting steel. Flat seat. Flange diameter, 1.622 inches nominal. Body outside diameter, 1.375 inches nominal. Any acceptable inside diameter. Flange seat to disk end height, 0.149 inches nominal. Under flange height, 0.145 inches nominal. No hardness rating.

01-145-6660

1.062 inch diameter flange. Body outside diameter .750 inches. Inside diameter .375 inches. Flange seat to disk end .312 inches high. Under flange .235 inches high. Anodized.

00-878-0387

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter .594 inches. Flange seat to disk end .312 inches high. Under flange .297 inches high.

00-906-1459

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter .750 inches. Flange body outside diameter 1.250 inches. Inside diameter .750 inches. Flange seat to disk end .344 inches high. Under flange .328 inches high.

00-878-0402

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter 1 inch. Flange seat to disk end .312 inches high. Under flange .297 inches high.

00-878-0405

1.062 inch diameter flange. Body outside diameter 1.062 inches. Inside diameter .828 inches. Flange seat to disk end .094 inches high. Under flange .031 inches high.

00-878-0397

1.531 inch diameter flange. Body outside diameter 1.531 inch. Inside diameter 1.203 inches. Flange seat to disk end .141 inches high. Under flange .125 inches high.

00-878-0398

Cobalt Composition. Threaded flange 2.117 inch in diameter. .216 inch seat to disk end height. 18 threads per inch.

01-442-9990

### PLAIN THREADED

Nickel Alloy overall. Overall height, 0.312 inches nominal. Body inside diameter, 0.655 inches nominal. No hardness rating. Flat seating surface. UNS single threaded portion. Nominal thread size, 0.938 inches single threaded portion. Thread quantity per inch, 24 single threaded portion. Thread class, 3A single threaded portion. Thread length, 0.156 inches nominal single threaded portion.

01-055-5677

### THREADED FLANGED

Nickel Alloy overall

Flange diameter, 0.749 inches nominal. Body inside diameter, 0.390 inches nominal. Flange seat to disk end height, 0.346 inches nominal. Under flange height, 0.328 inches nominal. No hardness rating. Angular seating surface. UNEF single threaded portion. Nominal thread size, 0.625 inches single threaded portion. Thread class, 3A single threaded portion. Thread length, 0.234 inches nominal single threaded portion.

01-048-5049

Flange diameter, 6.160 inches nominal. Body inside diameter, 0.749 inches minimum and 0.750 inches maximum. Flange seat to disk end height, 0.438 inches nominal. Under flange height, 0.860 inches nominal. No hardness rating. Angular seating surface shape. 5.000 degree seat angle. UNF single threaded portion. Nominal thread size, 5.750 inches single threaded portion. 2B thread class. Thread length, 0.500 inches nominal single threaded portion.

00-115-2454

Any acceptable flange diameter. Body inside diameter, 0.374 inches minimum and 0.375 inches maximum. Flange seat to disk end height, 0.250 inches nominal. Under flange height, 0.320 inches nominal. Nickel Alloy B overall. No hardness rating. Angular seating surface. 10.000 degree seat angle nominal. Thread series, UNF single threaded portion. Nominal thread size, 0.875 inches single threaded portion. Thread class, 2A single threaded portion. Thread length, 0.183 inches nominal single threaded portion. SPECIAL FEATURES: 1.000 inch width across flats on flange.

00-216-9017

## STEM, FLUID VALVE

Valve type for which designed, solenoid. Largest outside diameter, 0.375 inches nominal. Overall length, 4.000 inches nominal.

01-365-3010

Nickel Alloy

Stop-check valve type. Valve size, 0.250 inches. Largest outside diameter, 0.419 inches nominal. Overall length, 3.984 inches nominal. Stem actuating end type, threaded externally.

01-048-6717

Valve type for which designed, gate. Valve size for which designed, 2.000 inches. Largest outside diameter, 1.250 inches nominal. Overall length, 2.375 inches nominal. Stem actuating end type, socket. FEATURES PROVIDED: threaded. SPECIAL FEATURES: Threads 1-6 ACME-3G; 7/16 square by 3/8 deep actuating socket.

01-383-5178

Valve type for which designed, globe. Valve size for which designed, 6.000 inches. Rounded.

01-178-3089

## THERMAL ELEMENT, TEMPERATURE REGULATOR

General characteristics description, 8.0 feet capillary, range 50.0-250.0 degrees Fahrenheit. 44CC bulb volume, working load 15-20 pounds, design load 24 pounds. End Item: AERCO International Inc. Type HLK-TA Temperature Regulator.

01-044-1668

## VALVE, ANGLE

Aluminum body. A7 angle style. Disk flow control. Maximum operating pressure, 300.0 PSI single response. Manual valve operation. Connection type, threaded external tube 1st and 2nd ends. Connection style, G42 flared 1st end and G46A plain 2nd end. 37.0 degree seat angle. UNF threads 1st end and UNS threads 2nd end. Thread quantity per inch, 24 2nd end. Thread class, 2A 1st and 2nd ends. Right-hand 1st and 2nd ends. Bonnet type, Inside spring with integral bonnet attachment method. FEATURES PROVIDED: Bonnet packing.

01-128-3014

Bronze body

Nickel Alloy seat and stem. A7 angle style. Manual valve operation. Unthreaded internal tube connection all ends. Connection style, G21A streamlined with one brazing ring all ends. Nominal outside diameter tube accommodated, 0.500 inches all ends. Bonnet type, inside screw. Bonnet attachment method, union.

01-286-9699

## THREADED PIPE.

Copper Alloy body, CRES control device. Threaded internal tube, both ends. Needle flow control device. Screwdriver slotted stem with plastic cap.

00-650-4666 7/16-20 UNF-2B

Copper Alloy body, flow control device, and seat, Steel stem. 500 PSI water oil and gas maximum operating pressure .300 degrees Fahrenheit maximum operating temperature. Integral inside screw type bonnet. With valve stem lock shield, bonnet packing, and thread. Seal cap on body top.

00-289-4383 First end plain style threaded external pipe W/1/4-18NPT Right-hand. Second end flared style, threaded external tube with 7/16-20UNF 3A Right-hand threads.

CRES body with CRES disk flow control device. Inside screw bonnet, with thread attachment method. First end accommodates, 1-1/2 inch outside diameter tube. Second end accommodates, 1-3/8 inch outside diameter tube.

00-957-5655 1/2 inch NPT female threads both ends.

## THREADED BOSS

Steel composition 316 with cone type flow control device. 3000 PSI WOG maximum operating pressure. Temperature not rated. Manual operation. Threaded inside screw type bonnet, without packing. Bulkhead mounted.

00-965-1211 First end internal boss style with gasket seal and 7/16-20UNF 3B Right Hand threads. Second end external boss style with 7/16-20UNF 2A Right Hand threads. Both ends accommodate 1/4 inch outside diameter tube.

## THREADED TUBE

Overall Steel, threaded male tube. IPS shown below. Packing retainer, Bonnet type. UNC Male end Copper Alloy body. Steel and Plastic disk type flow control device. Media not specified. 300 PSI maximum operating pressure at 200 degrees Fahrenheit maximum operating temperature. Manual operation. Threaded bonnet attachment with inside spring. Bulkhead mounted with bonnet packing. Two nut-sleeves furnished with swagelok type ends.

00-554-2990 1-1/16 UNS male end, 7/8

Overall Steel, threaded male tube. IPS shown below. Packing retainer, Bonnet type.

00-224-2205 Both ends flare less, threaded ext tube W/7/16-20UNF RH thds.

## THREADED/UNTHREADED TUBE

Copper Alloy overall. Unthreaded internal tube, socket type to threaded external flared, tube 45 degree seat angle. Disk type flow control, manual valve operation, threaded inside screw type bonnet. Furnished with cap and chain. For use with halogenated refrigerants.

	Socket end	Flared end	UNF
00-469-1853	3/8	3/8	5/8-18

## THREADED PIPE

200 WOG service. Copper Alloy 922 body. Nickel Alloy seat, stem. IPS shown below. 425 degrees Fahrenheit steam service.

	NPT
00-495-6229*	1/4
00-483-0692	1/2
00-186-3542	3/4
00-483-0693	1
00-188-8245	1-1/4
00-495-6234*	1-1/2
00-243-9769*†	2

\* Water, gas, oil service.

† 400 PSI WOG 150 degree Fahrenheit.

## UNION NUT and THREADED EXTERNAL TAILPIECE

200 PSI Steam service. Bronze body, Nickel-Copper Alloy stem, seat and disk. High shock type. Rated for temperature to 425 degrees Fahrenheit.

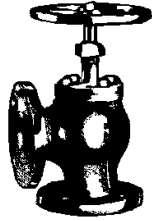


# CLASS 4820

00-495-6233 3/8 NPT

## FLANGED PIPE

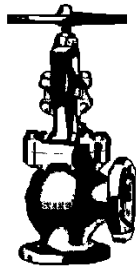
100 PSI WOG service. Copper Alloy 922 body, seat and disk. Nickel Alloy seat and stem. Rated for temperature to 425 degrees Fahrenheit. Sizes to 2-1/2 have union bonnets. 3 inch size has bolted bonnet. NAVSHIPS Drawing 5000-S4824-1385541.



	IPS/In.	Flg OD/In.	No.	Size
00-278-9874	2-1/2	6-1/8	Six	9/16
00-278-9877	3	6-5/8	Eight	9/16

## UNTHREADED INTERNAL PIPE

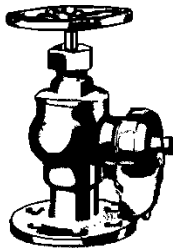
600 PSI steam service. Steel body, outside screw and yoke. CRES stem, Cobalt Alloy seat and disk. Rated for temperatures to 775 degree Fahrenheit.



	IPS/In.	Flange OD/In.
00-892-5698	1/2	3-3/4

## THREADED EXTERNAL HOSE and FLANGE ENDS

Copper Alloy body and seat. Nonmetallic composition disk, Nickel-Copper Alloy stem. Furnished with cap and chain.



Inside screw, threaded bonnet attachment.

01-173-1161 1-1/2 IPS female end, 1-1/2 NPSH male end. 5-1/16 outside diameter flange, Six 9/16 bolt holes. NAVSHIPS Dwg 810.

Outside screw-yoke, bolted bonnet attachment.

00-580-6422 2-3/2 female end, 2-1/2 NH male end, 6-1/8 outside diameter flange. Six 11/16 bolt holes.

## UNTHREADED INTERNAL TUBE

Copper alloy body, seat and stem. Plastic disk flow control device. Packless type. For use with refrigerants. Socket connections, inside screw bonnet, threaded screw attachment.

	OD Tube	PSI
00-287-2599	3/8	150
00-277-1714	5/8	500
00-277-1717	7/8	300
00-277-1715	1-1/8	300

## VALVE ASSEMBLY

**SPECIAL FEATURES:** Items are being coded as critical to ensure source inspection will be performed at the point of manufacture prior to material receipt by the US Navy or other DoD components. These items are piece parts or end items in support of vital military hardware necessary to sustain the successful mission of the ships, submarines, and shore stations of the US Navy. Critical features including, but not limited to dimensions, tolerances/clearances, electronic characteristics, and metallurgical properties will be specified for government Quality Assurance Representatives to insure the highest possible degree of quality and reliability of these parts being delivered under NAVICP contracts. End Item: Ordalt 15720, MK26MoD0, Launching System, GM.

00-191-2944

**SPECIAL FEATURES:** Vacuum toilet.

01-408-1609

## VALVE ASSEMBLY, PRESSURE VENT

Aluminum Alloy. T6 operating pressure 35 PSI at 0 degrees Fahrenheit to plus 350 degrees Fahrenheit.

00-761-0212

## VALVE, BALL

### STRAIGHT THRU TYPE, MANUAL VALVE OPERATION

Bronze body. Titanium flow control device. Plastic Polytetrafluoroethylene packing and seat. Nickel Alloy stem. Water-Oil-Gas single response media for which designed. Maximum operating pressure, 700.0 PSI single response. Maximum operating temperature, 100.0 degrees Fahrenheit single response. Connection type, unthreaded internal pipe all ends. Connection style, G30B socket with brazing ring all ends. Nominal pip size accommodated, 2.000 inches all ends.

01-061-9242

Steel Composition 440A Flow control device. Center to center distance, 1.250 inches. Media, Fuel/Oil, Hydrocarbon single response. Maximum operating pressure, 60.0 PSI single response. Maximum operating temperature, 135.0 degrees Fahrenheit single response. Connection type, threaded internal boss all ends. Connection style, G4 gasket seal all ends. UNJF threads all ends. Nominal thread size, 0.562 inches all ends. 3B threads and Right-hand direction all ends.

01-130-2164

Media, Water, Fresh, single response. Maximum operating temperature, 140.0 degrees Fahrenheit single response. Connection type, threaded internal pipe all ends. Connection style, G9 plain all ends. Nominal threads size, 0.750 inches all ends (NPT). Right-handed all ends.

01-331-2824

Threaded external hose, plain ends, both ends identical. Copper Alloy body.

Pipe Size/In.  
00-025-3364 1-1/2 NPSH

Flange connection, Ball and lubricated plug. For combined sewage and sea water service.

Pipe Size/In.  
01-033-7237 3  
01-033-7238 4

Threaded internal pipe, plain ends, both ends identical. Copper Alloy overall, Chrome Plated ball. 250 PSI WOG 300 degrees Fahrenheit maximum. Press-in renewable seat ring.

Pipe Size/In.  
00-417-1120 1/2-14 NPT

## VALVE, BLEEDER, HYDRAULIC SYSTEM

End Item: Aircraft Model F-18. FSC application data, Aircraft, Wheel and Brake System.

01-116-1528

Steel body with Cadmium surface treatment. A1 straight through style. Disk flow control device. Maximum operating pressure 3000.0 PSI single response. Automatic valve operation method. Threaded external tube 1st end. Threaded internal tube 2nd end. Plain 1st end and flare 2nd end connection style. Nominal outside diameter tube accommodated, 0.125 inches 2nd end. UNF threads 1st end. UNEF threads 2nd end. Nominal thread size, 0.375 inches 1st end and 0.312 inches 2nd end. Thread class, 3A 1st end and 3B 2nd end. Thread direction right-hand all ends.

00-204-9596

## VALVE, BUTTERFLY

Copper Alloy body. Nickel Alloy flow control device. Rubber seat. Nickel Alloy stem. Straight through style. Media, Water, fresh 1st response and Water, Salt 2nd response. Fuel/Oil, Hydrocarbon 3rd response. Maximum operating pressure, 200.0 PSI single response. Maximum operating temperature, 180.0 degrees Fahrenheit single response. Manual valve operation. Butterfly valve size, 4.000 inches.

01-204-8343

Straight through type. Unthreaded internal pipe, socket type, both ends identical. Nickel Alloy body, Rubber seat. 200 PSI WOG at 180 degrees Fahrenheit maximum. Manual valve operation.

Pipe Size/In.  
01-088-3444 2-1/2

Nickel Alloy flow control device. Rubber seat. Straight through type. Manual valve operation. Media, Fuel/oil, hydrocarbon 1st response. Water, Fresh, 2nd response. Water, Salt, 3rd response. Maximum operating pressure, 200 PSI single response. Maximum operating temperature, 180.0 degrees Fahrenheit single response. Connection type, unthreaded external pipe all ends. Connection style G60B plain all ends. Nominal pipe size accommodated, 6.000 inches all ends.

01-118-1986

Straight through type, flanged ends. 2-1/8 inches. Face to face distance. Copper Alloy stem and flow control device. Manual operation. 9 inches diameter with flange. Includes (8) 7/8 inch diameter holes.

Valve/In.  
01-225-5805 4

## VALVE, CALIBRATED FLOW

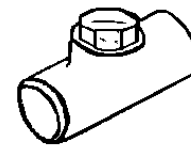
Aluminum Alloy 2024 body. Steel stem material. Piston, spring loaded flow control device. Flow control device material, Aluminum Alloy 2024. Anodized surface treatment. 2 end connections, 1st end threaded internal boss, B6 gasket seal style. First end thread size, 3/4-16 UNF, 3B class, Right-hand. Second end relationship with first end, identical. Straight through body style. Face to face distance, 4.125 inches nominal. Regulation type, automatic single stage. Maximum inlet pressure rating, 3000.0 PSI. Valve discharge flow rate, 9.0 gallons per minute. End Item: 1650 01-122-6948 Aircraft Eagle F-15.

01-438-7324

## VALVE, CHECK

Automatic valve operation, disk flow control. Round flange with bolt holes. 100 PSI WOG. Flange outside diameter, bolt circle diameter, and face to face distance (length) listed.

### STRAIGHT THRU STYLE



PLAIN FACE

8 BOLT HOLES, .562 inch diameter.

	Flange OD/In.	Thk/In.
00-266-9518	6.625	.625

10 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-891-4894	9.062	.562

12 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-266-9515	10.125	.562

250 PSI. NAVSHIPS Drawing, 5000-4824-1385637.

6 BOLT HOLES, .688 inch diameter.

	Flange OD	Thk
00-058-3509	6.125	.930

8 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-489-5314	7.688	1.000

10 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-058-3630	9.062	1.062

12 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-489-5348	10.125	1.188

# CLASS 4820

## PLAIN ALL ENDS

### THREADED INTERNAL PIPE

Swing disk type. Copper Alloy body stem, seat, and disk. Rated for temperature to 150 degrees Fahrenheit. Internal threads

175 PSI water service.

00-422-9494 1/2 NPT

200 PSI WOG service.

00-288-6678 3/4 NPT

300 PSI steam service.

Straight through style with disk flow control. Threaded internal pipe, plain, both ends. 150 PSI steam. Copper Alloy body, Plastic lining. Automatic valve operation.

01-119-9009 3/4 NPT both ends

### UNTHREADED INTERNAL/EXTERNAL PIPE

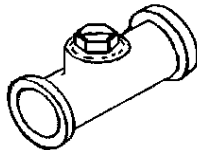
#### Valve Size

00-482-8906	1/4
00-483-0678	3/8
00-483-0679	1/2
00-483-0681	1
00-482-8907	1-1/4
00-483-0682	2

### THREADED EXTERNAL PIPE

#### Valve Size

00-483-0680 3/4



### UNTHREADED EXTERNAL TUBE

Plastic body, automatic valve, disk flow control.

#### Valve Size/In

01-074-5046 .250 - OD

### FLANGE ALL ENDS

Copper Alloy, CRES seat and flow control device. Automatic valve operation. (6) 9/16 inch bolt holes. 7-1/4 inch face to face distance.

00-287-2299 2 inches

### THREADED INTERNAL TUBE

Poppet flow control device. Salt water use. Hydraulic valve. 250 PSI. 3/8 inch socket connection. Spring disk loaded.

00-725-4507

### THREADED INTERNAL/EXTERNAL PIPE

Poppet flow control. Threaded internal pipe to threaded external pipe, plain, both ends. Steel, CRES body. Steel poppet. Automatic valve operation.



00-391-5899 3/8 NPT both ends

### THREADED EXTERNAL BOSS

3000 PSI, Fuel oil. Steel, CRES body and poppet. Gasket seat both ends.

	OD	Thk
00-865-2759	3/4	1 1/16-12UN

### THREADED EXTERNAL PIPE

Air service, ball flow control. Steel, CRES overall. 200 PSI steam service. Automatic valve operation.

00-457-6470 3/8 NPT both ends

### THREADED EXTERNAL PIPE/TUBE

Poppet flow control. Inverted flare, 37 degree seat angle. Copper Alloy body and poppet, Rubber seat. 3000 PSI at 400 degrees Fahrenheit maximum. Press-in renewable seat, automatic valve operation.

	NPT	UNF
00-481-6686	1/4	.438

### THREADED INTERNAL/EXTERNAL TUBE

Ball flow control. Threaded internal tube, gasket seal to threaded external tube. Automatic valve operation. Any acceptable material.

00-967-4828 1/4-20 UNF and 1/2-18 UNF

4 BOLT HOLES: 4.562 outside diameter, .625 inch inside diameter.

01-131-2742 2 in.

Disk flow control, flare less, 20 degree seat angle. Copper Alloy overall. 1000 PSI at 300 degrees Fahrenheit maximum. Spring disk loading. Automatic valve operation.

	NPT	UNF
01-058-4993	1/4	.250

Poppet flow control, flared. 37 degree seat angle, Spring disk loading, automatic valve operation.

600 PSI, Air, Aluminum Alloy overall.

00-226-4667 3/4 1.062-12UN

Poppet flow control, Flare less. 12 degree seat angle, Spring disk loading, automatic valve operation.

3000 PSI, hydraulic fluid. Steel CRES body.

	Tube Size	Thd Size
00-903-3755	3/8	9/16-18UNF

Disk flow control, socket type. Spring disk loading, automatic valve operation. Copper Alloy body. Nickel Alloy disk, seat, and stem.

01-030-4942 1/2 in.

Copper Alloy body, Nickel Alloy flow control device Copper seat. Steam, WOG media. 400 PSI. 425 degrees Fahrenheit. Automatic valve.

2-29/32-10 UNS. Horizontal mounting.

00-482-8908 1-1/2 in.

## VALVE, EXPANSION

### THREADED EXTERNAL TUBE

#### ANGLE BODY STYLE

Diaphragm Flow Control Device, Refrigerant 12.

Brass body, Nickel Copper Alloy, Monel seat. CRES flow control device. Thermostatic valve expansion control. Valve evaporator temperature range-high. 12 BTU per hour refrigeration capacity. Both ends with 45 degree flared seat angle. Capillary tube 60 inches long with clamp, mounted.

Bulb 3-1/2 inches long by 1/2 inch diameter. Valve equalizer, external location.

00-571-5892 3/8 and 1/2

Bulb 3 inch long by 1/2 inch diameter. Internal valve equalizer.

00-898-5282 1/2 and 1/4

Disk, Top Guided Flow Control Device, Refrigerant 12.

Brass body. Seat, flow control and stem, any acceptable. Pressure range not rated. Internal valve equalizer. 60 inches long capillary tube with clamp mounted bulb. 6 BTU per hour refrigeration capacity. Valve press limiting setting 15 PSI. Valve evaporator temperature range-low. Thermostatic valve expansion control. Both ends with external threads, 45 degree angle flared seat.

00-978-7206 3/8 and 1/4

### UNTHREADED INTERNAL TUBE

Diaphragm Flow Control Device-Refrigerant 12.

Brass body, CRES flow control and seat. Both ends unthreaded crimp end style. Temperature rating 100 degrees Fahrenheit. Pressure type valve expansion control. Valve pressure limiting device setting. 30 PSI absolute 0 to 80 PSI range. BTU per hour not rated. Flared tube external valve equalizer, 7/8 inch diameter connection. 0 to 80 PSI range.

01-023-7330 1/2 in. OD tube accommodation

### THREADED EXTERNAL TUBE

Piston type body, Free Type Flow Control Device Refrigerant 12.

Brass body, seat, flow control and stem. Both ends threaded with flared end style and 45 degree angle seat. 3/8 and 1/2 inches tube accommodation. Temperature rating minus 50 degrees to 50 degrees Fahrenheit. Thermostatic type valve expansion control. Valve evaporator temperature range-low. 12 BTU per hour refrigeration capacity. 60 inch long capillary tube with clamp mounted. 3-1/2 inch long by 1/2 inch diameter bulb. Internal valve equalizer.

00-410-4496

## VALVE, FLOAT

### STRAIGHT-THRU WITH OFFSET BODY STYLE

Needle Flow control device, Air.

CRES body, stem and flow control. 75 PSI air media. Automatic-operated. Both ends, 1-1/2 UNF external threaded tube with gasket seal end style.

00-947-6308

## VALVE, FOOT

Low or medium pressure body style. Aluminum Alloy body and seat. Non metallic swing type disc, with external loading spring. One end: gasket seal style with threaded internal hose type connection. 3 inch inside diameter. Fresh water media.

00-540-2381

## VALVE, GAS INLET, NONMAGNETIC

Steel, Corrosion Resisting 310. 0.875-14UNF-3A threaded body. Overall length, 0.530 inches. Weapon System Essential. End Item: Alidade, telescopic.

00-773-0222

## VALVE, GATE

### BUTT WELD PIPE

#### STEAM

Steel body, Cobalt disk, and seat. Straight through style with disk flow control. Butt weld pipe, beveled, both ends identical. Manual valve operation, rising stem type, outside screw-yoke bonnet. String type pressure seal bonnet attachment, bonnet packing feature.

600 PSI operating pressure

Pipe Size

00-444-7247 2.500

1500 PSI

Pipe Size

00-446-8370 2.500

00-446-8371\* 3.000

\* CRES.

### SOCKET WELD PIPE

Copper Alloy body, Nickel-Copper seat, stem, and flow control device. Solid wedge disk. 200 PSI for steam to 425 degrees Fahrenheit, and 400 PSI WOG to 150 degrees Fahrenheit temperature. Nonmagnetic service. Rising Stem, inside screw threaded bonnet.

IPS

00-432-9581 1/2

00-432-9582 3/4

00-432-7195 1

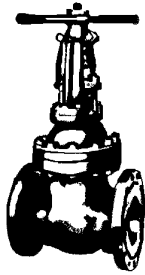
00-432-9583 1-1/4

### PLAIN FACE FLANGE with HOLES

Copper Alloy, Rising stem, outside screw and yoke. Bronze body, Nickel-Copper seat, stem, and flow control device. Solid wedge disk, and threaded renewable seat ring.

100 PSI WOG

# CLASS 4820



	IPS/In.	Flg OD/In.	Hole Qty	Bolt Hole Sz
00-277-9848	2-1/2	6-1/4	Six	9/16
00-892-5488	3-1/2	7-3/16	Eight	9/16
00-277-9849	3	6-5/8	Eight	9/16
00-287-2840	8	12-3/8	Fourteen	11/16

Copper-Alloy body, Nickel Copper flow control seat and stem.

	IPS/In.	Flg OD/In.	Hole Qty	Bolt Hole Sz
00-277-9853	5	9-1/16	Ten	11/16
00-277-9856	6	10-1/8	Twelve	11/16

250 PSI Salt water.

	IPS/In.	Flg OD/In.	Hole Qty	Bolt Hole Sz
00-541-5692*	2-1/2	6-1/8	Four	11/16
00-541-5695	4	7-11/16	Four	11/16
00-541-5696	5	9-1/16	Six	11/16
00-541-5697†	6	10-1/8	Eight	11/16
00-541-5699	8	12-3/8	Ten	11/16

\* CRES stem.  
† 150 PSI.

## NON SPEC TYPES

Copper Alloy body, Nickel Copper Alloy disk, seat, and stem. Rated 250 PSI Salt Water. Ends identical. Eight 11/16 bolt holes on 6-5/8 outside diameter by 1/4 thick flange. Threaded seat ring, rising stem, and threaded outside screw yoke.

00-541-5693 3 IPS 6-1/4 inches Face to Face

Copper Alloy body, Ni-Co Alloy disk, seat, and stem. Rated 100 PSI WOG, 250 PSI Salt Water and 250 degrees Fahrenheit all media. Ends identical 7-3/16 outside diameter by 1/2 thick flange. Eight 9/16 bolt holes. Threaded seat ring, rising stem, outside screw-yoke bonnet with packing.

00-541-5694 3-1/2 IPS 6-1/2 in. Face to Face

## RAISED FACE FLANGE

Steel body, disk, seat. CRES stem. Flow control and seat Cobalt-Chromium-Tungsten Alloy. 150 PSI Steam. 500 Degrees Fahrenheit.

	IPS/In.	Flg OD/In.	Hole Qty	Bolt Hole Sz
00-418-0160	2-1/2	7	Four	3/4
00-419-0456*	3	7-1/2	Four	3/4
00-469-7725	3-1/2	8-1/2	Eight	3/4
00-419-3024	4	9	Eight	3/4
00-419-5826	6	11	Eight	7/8
00-419-5827	8	13-1/2	Eight	7/8

\* CRES.

## THREADED INTERNAL PIPE

Copper Alloy. Straight through style with disk flow control. Plain, both ends identical. 200 PSI Steam, 400 PSI water, gas. Stem type, manual valve operation, inside screw bonnet with packing feature.

NPT

00-268-9152	3/8
00-554-8713	1/2
00-268-9154	3/4
00-268-9157	1-1/2

## SOCKET WELD PIPE

Rising stem. Copper Alloy body. Nickel-Copper seat, stem, and flow control device. Solid wedge disk. 200 PSI for steam to 425 degrees Fahrenheit, and 400 PSI for WOG to 150 degrees Fahrenheit temperature.



IPS

00-495-6213	1/4
00-483-0675	3/8
00-184-9107*	1/2
00-497-1677†	3/4
00-184-9108*	1
00-483-0676	1-1/4
00-483-0677†	2

\* With 3 Rubber gaskets.  
† Threaded external boss.

## VALVE, GLOBE

### THREADED INTERNAL PIPE

Air. 10,000 PSI to 500 degrees Fahrenheit. Steel overall with needle type flow control device. Inside screw type bonnet with packing. Cadmium Plated.

00-924-0578 1/4 NPT

150 PSI steam pressure, to 425 degrees Fahrenheit temperature. Copper Alloy body, seat, and flow control device. Nickel-Copper stem.

00-262-6875 3/8 NPT  
00-262-6877 3/4 NPT

300 PSI steam to 425 degrees Fahrenheit temperature. Copper Alloy body and stem. CRES seat. Disk is either CRES or Nickel-Copper composition.

00-541-0372 1/2 NPT  
00-541-0371 3/4 NPT

5000 PSI WOG service to 450 degrees Fahrenheit. Steel overall. Needle type flow control device. Threaded inside screw type bonnet. Bulkhead mounting facility.

00-834-3594 1/4 NPT

6000 PSI Air service to 250 degrees Fahrenheit. Copper Alloy overall. Disk flow control. Threaded internal pipe. Plain, both ends. Threaded inside screw type bonnet. Bracket mounting. Bonnet packing feature.

00-881-0992 1/4 NPT

### UNTHREADED INTERNAL PIPE

1200 PSI fuel/oil, hydrocarbon to 100 degrees Fahrenheit. Steel overall with needle type flow control device. Inside screw type bonnet with union



attachment method. Special Features: Minimum temperature minus 20 degrees Fahrenheit.

01-085-3346 1/4 IPS

200 PSI steam to 425 degrees Fahrenheit. Bronze body and seat. Nickel-Copper stem and disk.

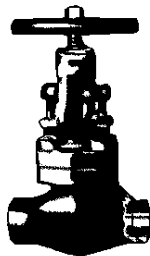
	IPS
00-188-8248	1/4
00-497-1684	3/8
00-497-1686	1/2
00-483-0699	3/4
00-495-6228	1-1/2
00-497-1681	2

### UNTHREADED INTERNAL PIPE, SOCKET ENDS

	IPS
00-189-4887	1
00-186-3541	1-1/4

600 PSI and 1500 PSI steam to 775 degrees Fahrenheit temperature. Steel body, Stellite faced seat and disk. CRES stem.

### UNTHREADED INTERNAL PIPE, SOCKET ENDS



600 PSI steam.

	IPS
01-196-7440	1/4

Steel body. Straight through style. Disk flow control. Manual valve operation.

	Pipe/Sz
01-143-3401	0.250
01-196-7441	0.750

### THREADED EXTERNAL PIPE ALL ENDS

Copper Alloy 922 body. Nickel Alloy flow control device. Nickel Alloy seat. Nickel Alloy stem. A1 straight through style. Disk flow control device. Media for which designed, Water-Oil-Gas single response. Maximum operating pressure, 375.0 PSI single response. Maximum operating temperature, 250.0 degrees Fahrenheit single response. Manual valve operation. Threaded external pipe all ends connection. Connection style, G46B plain all ends. NPT threads, all ends. Nominal thread size, 1.500 inches all ends. Thread direction, right-hand all ends. Welded renewable seat ring. Inside screw bonnet type. Threaded bonnet attachment method. Bonnet packing provided.

	NPT/Sz
00-495-6263	1.500

### THREADED EXTERNAL PIPE PLAIN ENDS

400 PSI WOG to 150 degrees Fahrenheit. Bronze body. Nylon disk type flow control device. Nickel Copper Alloy seat and stem. Threaded renewable seat ring. Threaded inside screw bonnet, with packing.

IPS

00-483-0695	1/2
00-188-8247*	1
00-483-0697†	1-1/4

\* With 3 BUNA-N "O" rings, for oil service only.  
† Socket with brazing ring.

### UNTHREADED INTERNAL PIPE, SOCKET ENDS

400 PSI WOG to 250 degrees Fahrenheit. Bulkhead mounting facility. Disk flow control. Copper Alloy body. Plastic disk and packing. Nickel Alloy seat and stem. Manual valve operation. Threaded inside screw bonnet.

IPS

01-080-0062	3/8
-------------	-----

100 PSI steam WOG and salt water to 425 degrees Fahrenheit temperature. Bronze body. Nickel-Copper seat, stem, and disk.

	Bolt Holes			
	IPS/In.	Flg OD/In.	No.	Size
00-287-2046	2-1/2	6-1/8	Six	9/16
00-287-2047	3	6-5/8	Eight	9/16
00-287-2041	3-1/2	7-3/16	Eight	9/16
00-287-2042	4	7-11/16	Eight	9/16
01-215-1455	5	9-1/16	Ten	11/16

150 PSI to 140 degrees Fahrenheit. Plain face flange, disk flow control. Copper Alloy body. Rubber disk. Nickel Alloy seat and stem. Manual operation, inside screw bonnet.

	Bolt Holes			
	IPS/In.	Flg OD/In.	No.	Size
01-073-6183	2-1/2	6.130	Six	9/16

### FLANGED PIPE W/RAISED STRAIGHT FACE

1500 PSI WOG to 775 degrees Fahrenheit. Nickel Copper Alloy body and disk, with Steel seat. Bolted inside screw type bonnet. Raised face 1/4 inch height, 2-7/8 inch diameter.

	Bolt Holes			
	IPS/In.	Flg OD/In.	No.	Size
01-032-5696	1-1/2	7	Four	1-1/8

400 PSI WOG. 150 degrees Fahrenheit. Plain ends, disk flow control. Copper Alloy body. Manual operation, inside screw bonnet with packing.

00-483-0698 2 NPT

6000 PSI WOG to 275 degrees Fahrenheit. Copper Alloy, Nickel Alloy body. Nylon disk type flow control device. Nickel Copper Alloy seat and Steel stem. Threaded inside screw type bonnet, with packing.

00-070-6918*	1-3/16 UNF
01-184-9371	1-3/8 UNF

\* Without vent, union nuts, tail pieces, and tailpiece O-rings.

OFFSET BODY 1-3/4 inch offset. 6000 PSI hyd service. Temperature not rated. Copper Alloy body, Copper Alloy flow control device, CRES stem, BUNA-N Rubber packing. Threaded inside screw type bonnet.

00-070-6920 1/2 NPT

### THREADED EXTERNAL HOSE with PLAIN FACE FLANGE

250 PSI, Bronze body and seat, Nickel Copper stem.

00-585-7567 5-1/16 outside diameter flange with six 9/16 bolt holes. 1-1/2 hose accommodation.

# CLASS 4820

## FLANGED PIPE to HOSE

250 PSI water service. Bronze body and seat. Nickel-Copper stem and nonmetallic disk.

00-585-7566 2-1/2 IPS W/6 11/16 holes 2-1/2 NPSH Hose

## THREADED EXTERNAL TUBE

5000 PSI WOG service to 160 degrees Fahrenheit. Steel overall, with needle flow control device. 12.5 degree end seat angle. Threaded inside screw type bonnet with packing.

00-941-8593 7/16-28 UNF 1/4 in. OD tube accommodation

6000 PSI WOG service. CRES overall, with stem flow control device, and Rubber packing. 45 degree end seat angle. Threaded inside screw type bonnet with, 2 nuts and 2 tail pieces. For use as an instrument piping isolation valve (gauge valve). Without O-ring groove. .316 inch diameter, .050 inch depth on valve end and socket weld on other.

01-104-0611 9/16 UNF

## UNTHREADED INTERNAL TUBE

300 PSI service. Socket ends, Copper Alloy piston type body, seat, and flow control device. Packless type. For use with refrigerants 12 and 22. Threaded inside screw bonnet, lug mounted.

Shut-off service

	Size
00-287-3317	1/4
00-287-5342	3/8
00-287-3323	5/8
00-287-3327	7/8
00-287-3328	1-1/8
00-288-9204*†	1-3/8

\* Non Spec Item.

† 400 PSI.

150 PSI Gas Refrigeration service. Copper Alloy body, seat, and stem, Nylon flow control device.

	Size
00-287-3325	3/8 IPS

300 PSI, Refrigerant. Halogenated. Socket ends. Overall Brass. Inside screw type bonnet, threaded.

	Size
00-287-3324	1/2

500 PSI refrigerant service to 450 degrees Fahrenheit. For refrigerant 12 and 22. Copper Alloy body and seat. Steel stem. Nylon disk type flow control device with 1 THREADED and 1 UNTHREADED end. Lug mounted thread, inside screw type bonnet. 1 cap chain furnished.

00-287-3318 1st end socket style 3/8 in. tube 2nd end flared 5/8-18 UNF W/45 deg seat angle. 3/8 in. tube

400 PSI WOG service to 250 degrees Fahrenheit. Copper Alloy body, Nickel Copper Alloy seat and stem. Thermoplastic disk type flow control device. Threaded inside screw type bonnet with packing.

01-085-3344 1/4 in. OD tube accom

900 PSI single response. Steel overall. Disk flow control device. Straight through style. Media, water, fresh single response. Manual valve operation. Socket connection. Bonnet type, outside screw-yoke with bolted bonnet attachment.

01-134-1256

6000 PSI WOG service to 400 degrees Fahrenheit. Nickel Copper Alloy

overall. Stem type flow control device. Integral inside screw type bonnet.

01-246-2812 7/16 in. OD tube accom

## UNTHREADED INTERNAL TUBE

700 PSI WOG to 250 degrees Fahrenheit. Socket with brazing rings. Disk flow control, manual operation. Nickel Alloy body, disk, and stem. Inside screw bonnet, integral attachment with handwheel.

	Size
01-061-1504	1/2

## THREADED EXTERNAL BOSS

4000 PSI air. Steel, CRES overall. External seat for gasket seal, 37 degree seat angle. Stem flow control, manual operation, inside screw bonnet.

	Size
00-886-3802	7/16-20 UNF

## THREADED INTERNAL BOSS

6000 PSI WOG service to 250 degrees Fahrenheit Cooper alloy body. CRES stem type flow control device. Threaded inside screw type bonnet with packing. Bulkhead mounting facility.

	Size
00-882-0013	9/16-18 UNF

## VALVE, INSTRUMENTATION

Includes a test connector, integral with the valve stem which is connected to valve outlet and is isolated from the valve inlet with valve in the closed position. The valve shall be capable of operating with lubrication oil at a fluid temperature range of minus 20.0 degrees to 350.0 degrees Fahrenheit or fuel at a fluid temperature range of minus 20.0 degrees to 250.0 degrees Fahrenheit. Only the items both listed on the approved product parts list and identified on the drawing have been tested and approved by the General Electric Company for marine and industrial products. A substitute item or another source shall be used without prior testing and approval by the marine and industrial department of the General Electric Company.

00-574-6544

## VALVE, LIFT CHECK

### THREADED INTERNAL BOSS

3000 PSI Fuel/Oil to 160 degrees Fahrenheit. Aluminum Alloy body, Steel seat, gasket seal. Poppet flow control, automatic operation. Press-in renewable seat, inside screw bonnet, spring disk loading. Horizontal mounting position.

	Size
00-971-3567	7/16-20 UNJF

### UNTHREADED INTERNAL PIPE

Copper Alloy body, Nickel Alloy seat and stem, Rubber disk. Socket type ends. Disk flow control. Threaded renewable seat ring, inside spring bonnet, spring disk loading. Diaphragm chamber activates disk per line pressure differential.

	Size
01-058-9728	3/8 IPS

## VALVE, LINEAR, DIRECTIONAL CONTROL

Aluminum Alloy. Hydraulic valve operation. End Item: Aircraft Model F/A-18.

01-392-0601

## VALVE, LIQUID OXYGEN

Coupling used to transfer liquid oxygen from supply source to aircraft lox converters. End Item: Aircraft; C-141, C-135, C-5, F-15, F-16 and aircraft support equipment; B-52, B-1, E-48 and F-5.

00-796-9680

## VALVE, PLUG

### THREADED INTERNAL BOSS

FLOW STYLE: Two-way, two port 90 degree plug turn.

3500 PSI hydraulic fluid, Phosphate-ester base to 185 degrees Fahrenheit. CRES overall, enamel surface. Gasket seal ends. Manual operation, nonadjustable rotation.

Size

00-056-8479 9/16-18 UNF

Copper Alloy body. Copper Alloy flow control device. Rubber synthetic Packing and Copper Alloy seat. F1 two-way two port 90 degree plug turn. Media for which designed, Air, 1st response. Carbon Dioxide 2nd response. Fuel/Oil, Hydrocarbon 3rd response. Hydrogen 4th response. Nitrogen, Gaseous, 5th response. Maximum operating pressure, 150.0 PSI single response. Maximum operating temperature, 280.0 degrees Fahrenheit single response. manual valve operation. Gasket seal connection style, all ends. NPT threads all ends. Nominal thread size, 0.250 inches all ends with Right-hand direction. Features: Nonadjustable rotation. SPECIAL FEATURES: Service determined by type of service lubricant added before use.

00-879-5473

### THREADED INTERNAL PIPE

FLOW STYLE: Four-way, four port, 90 degree plug turn.

Bulkhead Mounting Facility. Steel, Composition 304. Manual operation, nonadjustable rotation. SPCC HX Quality control specs.

Size

00-782-6560 1/8 NPT

## VALVE, PNEUMATIC TANK

### THREADED EXTERNAL TUBE

Air or gas service. CRES overall. Stem and disk flow control device. Furnished with cap. Special features: 2 lock wire holes and 5000 PSI operating pressure. 1st end: External seat for gasket seal. 2nd end: Hose socket.



00-535-6483 1st end 1/2-20 UNF  
2nd end .305-32 UNEF

### THREADED EXTERNAL PIPE

Brass body and seat, Nickel Plated body. One end connection. Core flow

control, Brass or Plastic. Standard core length. Steel spring with medium tension, with cap.

Size

00-242-4064 1/8-27 NPT

### THREADED EXTERNAL PIPE/TUBE

Brass body, Nickel Plated. Steel core flow control. Threaded external pipe, plain to threaded external flare less tube. 45 degree seat angle. 300 degrees Fahrenheit temperature rating. Standard core length, Steel spring. Includes 6300C cap.

00-454-7606 .125-27NPT .302 UNS

### THREADED EXTERNAL BOSS

Straight through style. Steel with Passivated outside surface treatment. Steel seat material. Stem and integral disk flow control made of Steel material. 1 end connection. First end style, external seat for gasket seal. 2A thread class with Right-hand threads. Accommodates Air or Gads media. No temperature rating. Includes 1 Boss O-Ring and 1 valve cap. 2nd end thread for valve cap.

00-981-4694

## VALVE, REGULATING, FLUID PRESSURE

### PLAIN FACE FLANGE

Bronze body, Nickel Copper Alloy seat and stem. Synthetic Rubber flat disk flow control device.

Air service. Thread type, renewable seat ring. Manual single stage regulation, with spring loaded valve and bellows. Remote actuation method, without filter. Maximum inlet pressure 150 PSI. 100 to 150 PSI outlet pressure range.

00-946-2700 6-1/8 OD flg  
Six 9/16 bolt holes

Salt water service. Thread type renewable seat ring. Manual single stage regulation, with spring loaded valve and bellows, remote actuating method. Maximum inlet pressure 150 PSI. 40 to 140 PSI outlet pressure range.

00-752-9809 5-1/16 OD flg  
Six 9/16 bolt holes

Salt water service. Temperature not rated. Thread type renewable seat ring. Auto single stage regulation, with spring loaded valve and bellows, remote actuating method. Without filter. Maximum inlet pressure 150 PSI. 70 to 170 PSI outlet pressure range.

00-288-8371 2IPS 5-9/16 OD flg  
Six 9/16 bolt holes

Monochlorodifluoromethane service. Inlet pressure 150 PSI, outlet pressure 70 to 260 PSI to 170 degrees Fahrenheit. Nickel Copper Alloy diaphragm flow control, automatic single stage regulation, spring loading, remote bellows actuation.

00-560-6682 1.250 IPS 4.500 OD flg  
Four 9/16 bolt holes

Salt water service. Inlet pressure 150 PSI, outlet pressure 40 to 140 PSI. Brass body and stem, Aluminum Bronze seat. Brass and Rubber flow control. Disk, top and bottom guided, diaphragm mounted. Threaded renewable seat, automatic single stage regulation, spring loading, remote bellows actuation.

00-618-9001 3/4 IPS 3.13/16 OD flg  
Four .563 bolt holes

Intended for use in water systems of naval ships. Bronze body, Nickel Copper Alloy seat and stem. Plastic flat disk type flow control device. 150

# CLASS 4820

PSI maximum inlet pressure rating. 165 degrees Fahrenheit temperature rating except as noted. Threaded renewable seat ring. Spring loaded valve. Without filter.

Fresh and salt water service. SPECIAL TEST FEATURES: High impact shock tests required. 25 to 60 PSI maximum outlet pressure range. Auto double stage regulation.

00-181-8934 5-1/16 OD flg  
Six 7/16 bolt holes  
00-181-8935 6-1/8 OD flg  
Six 9/16 bolt holes  
00-181-8937 6-5/8 OD flg  
Eight 9/16 bolt holes

Salt water service. Manual single stage regulation. 150 inlet pressure.

00-461-4466 5-9/16 OD flg  
Six 9/16 bolt holes  
00-256-6543 7-3/16 OD flg  
Eight 9/16 bolt holes

## THREADED EXTERNAL TUBE/THREADED INTERNAL GAS CYLINDER

350 PSI Acetylene service. Body, seat, and stem CRES, Nonmetallic disk. 6.5 to 7.5 PSI outlet pressure range with 3.5 PSI accuracy rating. Minus 25 to 150 degrees Fahrenheit temperature rating. With filter and auto-relief valve.

00-551-0757\* 9/16-18 UNF L-H ext thd  
.620-20 NGO R-H int thd  
\* 30 degree seat angle mating surface.

Oxygen service. Brass body with cylinder and delivery gauge, with indicator.

2000 PSI maximum inlet pressure.

00-171-9819 .908-14 NGO R-H int thd. 9/16-18 UNF L-H ext thd.  
0 to 40 PSI outlet. Automatic relief valve, cylinder gage, delivery gage, and indicator. Manual single stage regulation. Dial ranges 0 to 60 and 100 to 4000 PSI.

2500 PSI maximum inlet pressure.

00-551-0758\* 9/16-18 UNF R-H ext thd, with 60 degree seat angle. .903 to 14 NGO R-H int thd. 1st stage auto, 2nd stage manual. 40 PSI outlet press setting. With filter and auto relief valve.

\* A/A body material

## THREADED EXTERNAL TUBE

400 PSI Acetylene service. Flared and compression ends. Brass body, seat, and stem. Chloroprene Rubber diaphragm type flow control device. Wheel type manual single stage regulation. Single seat valve stem design weight loaded. With filter and automatic relief valve.

00-551-1094 9/16-18 UNF L-H ext thd, 45 degree seat angle.  
.880-14 NGO L-H ext thd. 250 PSI maximum inlet press. 0 to 15 PSI outlet press range. 0 to 30 PSI and 0 to 400 PSI and 0-500 PSI dial range.

## THREADED EXTERNAL TUBE / THREADED EXTERNAL GAS CYLINDER

2500 PSI air, Helium or Nitrogen service. Corrosion resistant metal body with nonmetallic valve seat. 0-100 PSI outlet pressure range. With filter, auto-relief valve, and inlet pressure gauge. Manual single stage regulation.

00-515-5663\* 9/16-18 UNF R-H ext thd.  
.960-14 NGO L-H ext thd

\* 60 degree seat angle mating surface.

## THREADED INTERNAL TUBE/ THREADED EXTERNAL GAS CYLINDER

Argon, Helium, and Nitrogen service. 50 PSI maximum inlet pressure. Body Aluminum Alloy, with Brass needle type flow control device. 1st stage auto, 2nd stage manual type regulation. Knob control, spring loaded valve, with filter, flowmeter, and inlet pressure gage.

00-664-6655 5/8-18 UNF R-H int thd.  
.960-14 NGO R-H ext thd.

## THREADED EXTERNAL TUBE/UNTHREADED EXTERNAL HOSE

Air service. 250 PSI maximum inlet pressure, with 300 degrees Fahrenheit temperature rating. Auto single stage regulation, with spring loaded valve. Bracket mounted, 20 PSI outlet pressure setting. Steel disk type flow control device and Aluminum Alloy body, with painted surface.

00-816-4489 3/8-24 UNF R-H ext thd W/ 37 degree seat angle.  
Beaded 2nd and 3rd ends for unthd hose

## THREADED INTERNAL BOSS

Air and fresh water service. Bronze body, seat, and stem. Synthetic Rubber flat disk flow control device. 200 PSI maximum inlet pressure rating. 5 to 95 PSI outlet pressure range. 150 degrees Fahrenheit temperature rating. Screw type manual control. Single seat spring loaded valve, with strainer.

00-482-6369 7/16-20 UNF R-H int thd

## THREADED INTERNAL PIPE

150 PSI inlet pressure, 10 to 60 PSI outlet pressure, air and fresh water service. Bronze body, seat and disk. Top and bottom guided, yoke mounted to diaphragm flow control device. 100 degrees Fahrenheit temperature rating. Manual screw type single stage regulation. Single seat spring loaded valve. Diaphragm remote actuation method 10 to 60 PSI outlet pressure range, without filter. SPECIAL FEATURES: 19 GPM water maximum flow capacity, at maximum rated inlet and outlet pressure.

00-288-8383 3/4-14 NPT R-H

150 PSI air service to 100 degrees Fahrenheit. Brass body. Swivel nut, flared ends. Poppet flow control, spring loaded.

00-096-8563 1-1/4 -111/2 NPT R-H

150 PSI salt water service. Bronze body, Nickel Copper Alloy seat, stem, and disk. Top guided flow control device with BUNA-N Rubber packing. 170 degrees Fahrenheit temperature rating. Threaded renewable seat ring. 1st stage auto, 2nd stage manual regulation. Screw type manual, bellows type automatic. Single seat spring loaded valve stem design. 70-260 PSI outlet pressure range, with pressure breaker.

00-690-5218 3/4-14 NPT R-H

300 PSI water service. Bronze body, Nickel Copper seat. Plastic disk flow control, threaded renewable seat ring, manual screw single stage regulation, spring loading. 25 to 75 PSI outlet pressure.

00-409-6328 3/4-14 NPT R-H

350 PSI fresh water service. Bronze body, Nickel Copper Alloy seat, stem, and disk type flow control device. Bellows actuated auto single stage regulation. Spring loaded valve. 70 to 250 PSI outlet pressure range.

00-889-5779 3/8-18 NPT R-H

400 PSI air and water service. Brass body, Acetate Plastic seat. BUNA-N Rubber diaphragm type flow control device. 150 degrees Fahrenheit temperature rating. Auto single stage regulation. Spring loaded valve, with bonnet.

00-004-8282 1/8-27 NPT RH

## UNTHREADED INTERNAL TUBE

150 PSI fresh water service. Bronze body. Bellows flow control device. Auto single stage regulation. Spring loaded valve.

00-609-7456 1/2 in. OD tube accom

150 PSI, Noncorrosive refrigerant to 170 degrees Fahrenheit. Cast Naval Bronze body, Nickel Copper seat and stem. Socket ends. Nickel Copper diaphragm flow control, bellows loading. 70 to 260 PSI outlet pressure.

01-003-5530 1/2 in. OD tube

3500.0 PSI, disk flow control. 2 end connections. Air and nitrogen, gaseous. Flared first end style. First end thread size and series, 3/4-16 UNF. Thread class 3B right-hand direction. First end seat angle 37.0 degrees. Second end relationship with first end, identical. Straight through body style. Automatic single stage regulation. Spring valve loading method. Temperature rating, 130.0 degrees Fahrenheit maximum. Outlet pressure range, 115.0 to 130.0 PSI. No rating for outlet pressure accuracy. No filter. SPECIAL FEATURES: Weapon system essential. End Item, Ground Support Equipment for the F/A-18 Hornet Aircraft.

00-085-2872 1/2 in. OD tube

## UNTHREADED INTERNAL PIPE

150 PSI fresh and salt water service. 165 degrees Fahrenheit temperature rating. Diaphragm type flow control device. Both ends streamlined with one brazing ring style. Threaded renewable seat ring. Auto double stage regulation. Single seat spring loaded valve. 25 to 60 PSI outlet pressure with nut, union, and tailpiece. SPECIAL FEATURES: Ends without brazing rings installed. SPECIAL TEST FEATURES: High impact shock tests are required.

	ID
00-181-8911	1
00-181-8912	1-1/4
00-181-8920	1-1/2

150 PSI salt water service. Bronze body, Nickel Copper Alloy seat, and Brass stem, with Synthetic Rubber disk type flow control device. Threaded renewable seat ring. Auto single stage regulation. Single seat valve stem. Bellows valve loading method and remote actuated. 70 to 260 PSI outlet pressure range. SPECIAL FEATURES: Both line connections have union joints, with socket weld tailpieces, .250 inch flare nut connection.

	ID
00-106-2051	3/4

150 PSI salt water service. Bronze body. Disk type flow control device. Auto single stage regulation. Bellows valve loading method. Diaphragm remote actuated with filter.

	ID
00-106-2050	1

## VALVE, REGULATING, SYSTEM PRESSURE

Brass body. Steel, CRES seat. Diaphragm flow control. Rubber flow control device material.

01-217-9997

## VALVE, REGULATING, TEMPERATURE

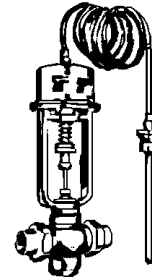
### THREADED INTERNAL/EXTERNAL PIPE

Bronze body, Brass stem, CRES Steel piston. Angle body style, 1 plain internal end, 2 plain external ends. Free type piston flow control, Integral with valve thermostatic element, adjustable temperature. Furnished with dial, nut, union, and tailpiece. SPECIAL FEATURE: Furnished with flange plate and position indicator.

01-027-2212 1/2-14 NPT R-H All ends

## UNTHREADED INTERNAL PIPE

Bronze body. CRES seat and flow control device. Self actuating, valve closes on temperature rise. 120 to 180 degrees Fahrenheit temperature range. 2000 pound steam per hour at 75 PSI inlet pressure. 14 foot long capillary tube with 1/2 inch diameter bulb.



00-202-6371 1-1/4

## THREADED INTERNAL TUBE

B11 Plain style. 2 end connections. First end threads size 7/16-20 UNJF, 3B, Right-hand.

01-150-6504

01-140-7521 7/16-20 UNJF  
01-140-7520 7/16-20 UNJF

## VALVE, RELIEF, PRESSURE AND TEMPERATURE

### UNTHREADED INTERNAL PIPE

Fresh water service. Angle body style. Bronze body, seat, and poppet type flow control device. CRES stem. 180 degrees Fahrenheit unadjustable temperature rating. Fusible temperature control device. 80 PSI opening pressure setting.

00-761-1981 1st end 1/2 in. pipe accom 7/8-14 UNF  
2nd end 1/4 in. pipe accom 7/8-14 UNF

## VALVE, SAFETY RELIEF

Aluminum Alloy 2024 body. Steel flow control device. Steel Composition 303 seat. C6 straight through style. Ball flow control device. Media, Oil, lubricating, diester base, single response. Maximum operating pressure, 3000.0 PSI single response. Maximum operating temperature. 275.0 degrees Fahrenheit, single response. Automatic valve operation. Opening pressure setting, 4.0 PSI.

01-222-4421

Steel CRES body, flow control device and seat. Disk flow control device. Maximum operating pressure, 140.0 PSI single response. Automatic valve operation. Spring disk loading method. Opening pressure setting, 130.0 PSI.

01-318-6212

Weapon System essential. End Item: H-46 Sea Knight Helicopter.

00-670-9846

## THREADED EXTERNAL PIPE

200 PSI Acetylene, air, hydrogen, and refrigerant 12 service. Maximum operating temperature minus 40 to 250 degrees Fahrenheit all services.

# CLASS 4820

Aluminum Alloy body, seat, stem, and disk type flow control device (BUNA-N rubber). Flow rate not rated. Automatic or manual operation. Spring loaded disk. Integral inside spring type bonnet. 25 PSI opening pressure setting. 29 to 72 PSI adjustable pressure range.

00-054-7713 1/8-27 NPT

200 PSI air to 300 degrees Fahrenheit. Angle style adjustable from 25 to 200 PSI. Plain ends. Aluminum body, seat, and stem. Copper Alloy and Silicon disk flow control, automatic operation, integral bonnet attachment, spring disk loading. Pressure tight outlet side.

00-482-2441 1/4 NPTF

250 PSI air service. Bronze body, seat, and disk. Brass stem. Automatic or manual lever valve operation. 26 to 75 PSI adjustable pressure range. Single end external thread. NAVSHIPS Drawing AS11S49-8.

00-446-3499 1/2-14 NPT single end

2500 PSI WOG. Minus 40 to 300 degrees Fahrenheit temperature rating. Steel body and poppet flow control device, with BUNA-N Rubber packing. Auto valve operation. Spring loaded disk. 3 to 50 PSI adjustable pressure range. SPECIAL FEATURES: Installed with deflector cap.

01-027-8920 1/2-14 NPT both ends

275 PSI FUEL/OIL to 275 degrees Fahrenheit. Opening pressure 240 PSI, gasket seal ends. Aluminum Alloy body and seat. CRES Steel poppet flow control. Automatic operation. 3.5 GPM discharge flow rate, spring disk loading. Pressure tight outlet side.

00-055-5114 9/16-18 UN

## THREADED INTERNAL PIPE

30 PSI steam to 210 degrees Fahrenheit. Opening pressure 30 PSI. Copper Alloy overall. Poppet flow control, automatic or manual operation, spring disk loading. Bonnet packing and pressure tight outlet side.

00-771-4730 3/4 NPT

160 PSI fresh water service. Temperature, flow rate not rated. Bronze overall. With spring loaded disk type flow control device. Automatically operated. Inside spring type bolted bonnet. 70 PSI opening pressure setting. SPECIAL FEATURE: Valve has emergency BTU steam discharge capacity but is not to be used for steam service installations.

01-093-7289 1 in. NPT, all ends

4000 PSI salt water. Adjustable from 200 to 4000 PSI. Angle style. CRES Steel body and seat. Cone flow control, automatic operation, spring disk loading. 125 GPM discharge flow rate. Pressure tight outlet side.

00-460-2374 1/4 NPT

CRES body, flow control device, and seat. Straight through style. Poppet flow control device. 4000.0 PSI single response. Automatic valve operation. Plain 1st end threaded connection with NPT threads. Nominal thread size, 0.250 inches 1st end at Right-hand direction. Packing retaining bonnet type. Opening pressure setting, 3750.0 PSI.

00-881-0994

1000.0 PSI. Air single response. Aluminum Alloy body with Steel Composition 303 flow control device. Anodized surface treatment. Straight through style. Piston flow control. Automatic valve operation. Plain all ends, connection style. Right hand threads, all ends. Inside spring bonnet type with integral bonnet attachment. Opening pressure setting, 500.0 PSI. End Item: Grumman Aircraft Model A10.

00-055-8654 1/4 NPT

## THREADED EXTERNAL TUBE UNTHREADED INTERNAL PIPE

400 PSI fresh water to 150 degrees Fahrenheit. Adjustable from 171 to 200

PSI. Angle style socket type ends. Copper Alloy body, Nickel Alloy seat. Copper Alloy disk flow control, automatic operation, spring disk loading.

01-057-4138 1/2 In. pipe size

460 PSI air. Adjustable from 116 to 150 PSI. Angle style, socket type ends. Copper Alloy body. Copper Alloy disk flow control, automatic operation, inside spring bonnet (bolt attachment), spring disk loading.

01-130-8756 1/2 In. 3/4 In.

## UNTHREADED INTERNAL TUBE

155 PSI refrigerant 12 service. Angle style. Brass body seat and stem. Chloroprene Rubber disk type flow control device. Spring loaded disk. Threaded inside spring type bonnet. 200 PSI opening press setting, with valve stem lock shield and pressure tight outlet side.

00-287-4045 5/8 in. OD tube accom

5000 PSI air to 165 degrees Fahrenheit. Adjustable from 2901 to 5000 PSI. Angle style, socket with brazing ring one end, plain socket other end. CRES Steel body, disk, and stem. Disk flow control, automatic operation, inside spring bonnet (thread attachment). Pressure tight outlet side.

01-025-0341 1/2 in. tube, both ends

## THREADED INTERNAL/EXTERNAL PIPE

60 PSI fresh water. 30 PSI opening pressure. Copper Alloy body, Chrome Plated. Angle style, plain ends. Poppet flow control, automatic operation, inside screw bonnet (integral attachment). External end is valve inlet.

00-003-8324 3/4 NPT, both ends

Oxygen, liquid service. Angle style. CRES body, seat, and stem with plug type flow control device. Spring loaded disk. 100 to 120 PSI adjustable pressure range, with pressure tight outlet side. For Aircraft use in both 300 and 70 PSI. Liquid Oxygen converters.

00-980-7721 1/8 ANPT R-H

55 PSI opening pressure. Angle style, plain ends. Copper Alloy, Chrome Plated body. Copper Alloy seat and stem. Plastic or Copper Alloy poppet flow control, automatic or manual operation, inside spring bonnet (integral attachment), spring disk loading.

01-020-4709 3/4 NPT, both ends

## VALVE, SHUTTLE

Aluminum Alloy overall. Maximum operating pressure, 3000.0 PSI single response. Maximum operating temperature, 160.0 degrees Fahrenheit single response.

01-116-1249

Aluminum Alloy body, Steel composition 630 flow control device. A3 cross style. Piston flow control device. Media for which designed, Fuel/Oil, Hydrocarbon single response. Maximum operating pressure, 3000.0 PSI single response. Maximum operating temperature, 275.0 degrees Fahrenheit single response. Manual valve operation.

01-129-5146

## VALVE, STOP CHECK

### PLAIN FACE FLANGE

100 PSI steam and WOG service. 425 degree Fahrenheit maximum operating temperature. Angle body style. Copper Alloy body, seat, and stem. Nickel Copper Alloy disk type flow control device. Manually operated. Horizontal mounting. Bolted outside screw-yoke type bonnet, with packing.

00-289-2245 2-1/2 in. 6.125 in. OD flg. 6 bolt holes. .562 in. dia

100 PSI WOG to 425 degrees Fahrenheit. Straight through style. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, manual operation, horizontal mounting, threaded renewable seat ring, outside screw-yoke bonnet (bolt attachment). NAVSHIP (80064) Drawing 5000-S4824-C1385541.

00-188-8262 2-1/2 in., 6.125 OD flg. 6 bolt holes. 9/16 in. dia

## RAISED FACE FLANGE

1500 PSI steam. Straight through style. Nickel Alloy body and stem, Cobalt Alloy seat, Nickel Alloy or Cobalt Alloy disk flow control. Manual operation, horizontal mounting, outside screw-yoke (bolt attachment), bonnet packing.

01-017-1200 7.000 OD flg 1/4 in. hg, raised face 4 bolt holes 1-1/8 dia.

## THREADED EXTERNAL PIPE

PSI not rated. Copper Alloy body. Disk flow control, manual operation, horizontal mounting, threaded renewable seat ring, inside screw bonnet (thread attachment), bonnet packing. SPCC (03950)

00-184-9186 1-1/2 NPT

200 PSI steam to 425 degrees Fahrenheit. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, automatic or manual operation, horizontal mounting, threaded renewable seat ring, inside screw bonnet (thread attachment), bonnet packing. SPCC (03950).

00-183-6995 2.000 NPT

## UNTHREADED INTERNAL PIPE

200 PSI steam to 425 degrees Fahrenheit. Straight through style, socket ends with brazing rings. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, automatic or manual operation, horizontal mounting, threaded renewable seat ring (thread attachment), bonnet packing. SPCC (03950)

### Pipe Size

00-183-6991	1/2
00-184-9185	3/4

## VALVE, VACUUM BREAKING

B1 single connection, straight flow Aluminum. Anodized surface treatment. 1 end connection. Threaded external tube. First end outside diameter tube accommodated, 0.500 inches nominal. 3A thread class, Right-hand. Media for which designed, Air. No rating for temperature.

01-244-8379

## VALVE, VENT

B6A straight through flanged ends. Face to face distance, 3.780 inches. Media for which designed, Air single response. Maximum operating pressure, 60.0 PSI single response.

01-159-7605

Anodized surface treatment. Style, A1 straight through. Media for which designed, Air single response. Connection type, unthreaded external tube 1st and 2nd ends. Connection style, G60A plain 1st end and G61A grooved 2nd end. Nominal outside diameter tube accommodated, 1.955 inches 2nd end.

01-076-7460

## VALVE, Y

Copper Alloy body. Nickel Alloy seat and stem. Straight through Y-pattern. Face to Face distance, 10.00 inches. Disk flow control device. Manual valve operation. Flange connection 1st end. Flange shape, round with holes 1st end. Nominal outside diameter, 6.625 inches 1st end. Nominal thickness, 0.938 inches 1st end. 4 bolt holes 1st end. Bolt hole nominal diameter, 0.625 inches 1st end. Bolt circle diameter, 5.500 inches 1st end. Flange face design, plain 1st end. Threaded renewable seat ring. Inside screw bonnet. Bolted bonnet attachment. SPECIAL FEATURES: 4 additional holes equally spaced, 11/16 inch diameter.

00-585-0431

Cobalt Alloy flow control device and seat. Steel Composition 302 stem. Straight through Y-pattern flanged ends style. Face to face distance, 15.500 inches. Valve size, 1.500 inches. Disk flow control device. Manual valve operation. Flange connection all ends. Flange shape, Round with holes all ends. Nominal outside diameter, 7.000 inches all ends. Nominal thickness, 1.250 inches all ends. 4 bolt holes all ends. Bolt hole nominal diameter, 1.125 inches all ends. Bolt circle diameter, 4.875 inches all ends. Flange face design, raised straight all ends. Raised face nominal height, 0.250 inches all ends. Raised face nominal diameter, 2.875 inches all ends. Outside screw-yoke bonnet with bolted bonnet attachment.

01-018-3780

## THREADED EXTERNAL TUBE ALL ENDS

Steel overall. Straight through Y-Pattern style. Stem flow control and Manual valve operation. Plain connection style all ends. UNS threads all ends at a nominal thread size of 1.062 inches. 10 threads per inch all ends at Right-hand direction. Packing retaining bonnet type.

00-596-3645





# GROUP 49

## MAINTENANCE AND REPAIR SHOP EQUIPMENT

### CLASS 4930

### LUBRICATION AND FUEL DISPENSING EQUIPMENT

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### ADAPTER, GREASE GUN COUPLING

NPTF  
 00-288-1511 Int thd 1-1/8-27

#### RIGID, FIXED ANGLE COUPLING.

	Type	Lg
00-141-8258*	Straight	7
00-563-2388	45 degrees	3-1/2
00-563-2389	90 degrees	3-1/2

\* 8 position, 360 degree swivel.

#### BOTTLE, FUEL SAMPLE

Plastic, Polypropylene chemical resistant: 1 liter capacity, threaded top. Calibrated reband 800 ML, Green band 500 ML. (For Model 390R Contaminated fuel detector) 6640-01-341-7448.

01-341-7448

#### COUPLING, GREASE GUN

Flush Type Nozzle, Chromium Alloy, Plated Steel coupling. 1/8-27 NPT female thread inlet connection.



00-722-4094

Hydraulic type nozzle with 18 inch bent extension, 10 to 20 degree bend.

00-294-5104 W/O check valve

Shafer Type Nozzle. Cadmium and Zinc Plated Steel coupling. 1/8-27 NPTF female thread inlet connection.

00-200-1841 W/O check valve

#### DISPENSER, GRAPHITE

Plastic. 1/4 ounce capacity, nonrefillable, not packaged for issue.

00-294-5108

#### DISPENSING PUMP, HAND DRIVEN

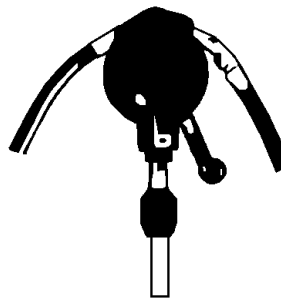
##### DIAPHRAGM TYPE

Used to transfer liquid petroleum product from drums into vehicles and aircraft fuel tanks, and into smaller containers, having 1-1/2 or 2 inch standard straight pipe thread plug opening. With fluid return drain pan.

Adjustable inlet pipe. 21 inches to 40 inches. Outlet hose 3/4 inches inside diameter, 8 feet long.

00-263-9886 10 GPM 100 CPM

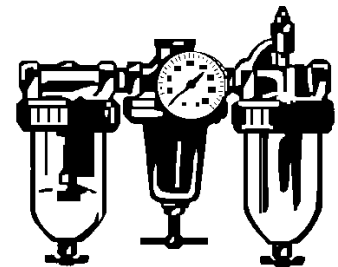
This pump is intended primarily for pumping lightweight or medium weight oil, from 15 to 55 gallon drums. 1 quart measured quantities per stroke. With threaded plug. 1-1/2 inches to 2 inches Bung opening size. Adjustable range of intake pipe is from 30 inches to 42 inches. Locking device included. With fluid return drain pan.



00-294-6897

#### FILTER AND OILER, AIRLINE

Combination Filter and Oiler, consisting of: a clear plastic centrifugal air filter with drain cock, air pressure gage with a range from 0 to 160 PSI, air regulator with a clear plastic oil bowl, and an adjustable feed. Used when dry, clean, pressure reduced, adequately lubricated compressed air is required.



NPT

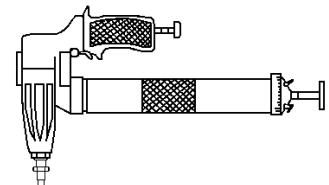
00-293-8152 1/2 inch

Aluminum Alloy, with chromate treatment, 1/2 inch inlet, 3/8 inch outlet port. 150 PSI. 140 degrees Fahrenheit maximum temperature rating.

01-060-8915

#### GREASE GUN, PNEUMATIC

Pneumatic Grease Gun. 80 to 125 PSI operating pressure range. One shot type. Air hose connection, 1/4-18 NPT female thread. Extension 7/8-9 NC male thread. Extension accessories are: 1 hydraulic to hydraulic 90 degree angle adapter, 1 hydraulic to pin type adapter, 1 hydraulic to push type adapter, 1 hydraulic coupling, 1 hose assembly (18 inches long), 1 hose assembly (25 feet long), and 2 additional grease containers. 1 pound lubricant capacity.



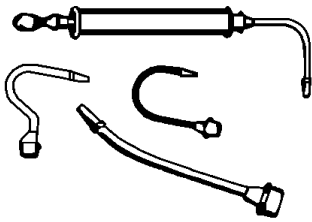
00-432-9211

#### GUN, FLUID DIRECT DELIVERY

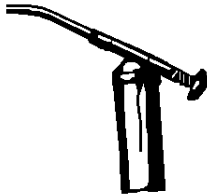
Pump type, push handle oiler. Designed to supply lubricants or similar liquids by force feed. All parts subject to wear, breakage, or distortion are readily accessible for adjustment and repair.

# CLASS 4930

Flexible metallic hose, rigid bent 90 degree angle tube, and rigid gooseneck tube.



Palm and finger-grip control. Rigid bent spout. Maximum delivery pressure 3000 PSI. Used in small machinery and close quarters.



Cap./Oz  
5

00-356-3924

Push handle disengagement from follower feature, flexible metallic hose, rigid bent angle tube, and rigid curved tube.

Cap./Oz  
25.8

00-274-5699

## LEVER, MANUAL CONTROL

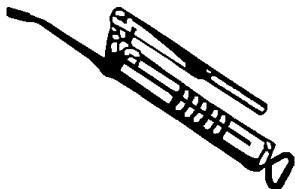
Aluminum. 5.250 inch overall length, 2.562 inch overall width, .656 inch thick. With handle on one end. 2.250 inches long and square hole, .438 inch square on second end. Mark: Open and Close on bottom of second end.

00-918-8506

## LUBRICATING GUN, HAND

LEVER OPERATED

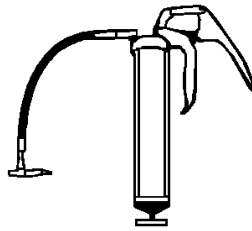
Equipped with 6-1/2 inch long rigid bent angle tube extension. 6000 PSI maximum delivery pressure. Spring priming method. Hydraulic coupler on dispensing end. Intended for use with cartridge and/or bulk grease.



Cap./Oz  
14

00-253-2478

Equipped with 12 inch long flexible rubber hose extension and furnished with adapter kit. 10,000 PSI maximum delivery pressure.



Cap./Oz  
16

00-965-0288

Equipped with 18 inches long flexible rubber hose extension. Furnished with: 90 degree elbow; One end .125 inch NPT internal. Other end: .125 inch NPT external. 4800 PSI discharge pressure. Hydraulic coupler type. Spring priming method. Non-Spec item.

Cap./Oz  
16

01-028-1442

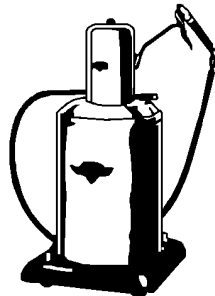
Spring primed lube gun with hydraulic type fitting without loader fitting. 4000 PSI maximum delivery pressure.

Cap./Oz  
3

00-250-8038

## LUBRICATING UNIT, POWER OPERATED

High pressure air operated lubricating unit. Handles fibrous light or heavy bodied lubricants. Gun pressure, 6000 pounds maximum. Equipped with, hydraulic coupler and 6 foot long hose. 60 pound container mounted on Rubber tired dolly.



Max PSI

00-720-4849 80 to 150

## NOZZLE, FUEL AND OIL SERVICING



Pistol grip, self closing. Hand operated with

integral strainer. Aluminum Alloy body and Aluminum tubing. Rigid spout. Intended for use on ground equipment for servicing aircraft.

NPT

01-022-7901 2-11-1/2 int thd

## OILER, AIRLINE

Rigid horizontal airline. Inlet and outlet connections listed below. Aluminum bowl adjustable under pressure, oil feed sight glass. 1/2 pint bowl capacity. Non-Spec item.

Pipe size

00-779-5763 1/4  
01-152-7902 1/2

## OILER, HAND

Handle and lever operated. Self-priming pump type.

Flexible spout.

Cap./Oz Spout  
Lg/In.

00-262-8868 16 13  
00-266-9159 32 18

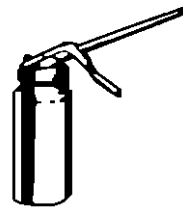
Rigid spout with bent tip.

Cap./Oz Spout  
Lg/In.

00-169-8275 16 9  
00-396-1040 32 15

Pistol Grip Pump Type. Furnished with removable tip.

Rigid bent tip spout.



Cap./Oz Spout  
Lg/In.

00-274-5713 4 3  
00-554-6778 8 6  
00-268-9786 22 6

Rigid straight spout.

Cap./Oz Spout  
Lg/In.

00-275-7900 36 A/A

## OILER, SELF FEEDING

Copper alloy body with Nickel surface treatment. Straight style body, regulated, with shut-off and sight feed. .750 inch clearance radius, 4.750 inches high. .125 inches by 27 inches, NPT. .625 ounce oil capacity.

00-243-4632

## **PUMP, BUCKET, LUBRICATING HAND**

Gooseneck coupler with leak proof cover. 5 foot hose, 35 pounds lubricant capacity. 750 pounds PSI nominal pressure capacity.

00-244-4860

## **PUMP LUBRICANT TRANSFER**

Air operated, 144 pounds lubricant dispensing capacity per minute. 150 pounds pressure rated, drum pump type, bung opening.

00-718-4075

Air operated. Lubricant dispensing capacity .750 pounds per minute. 150 pound pressure rated. Full opening. Equipped with follower plate and carrying handle.

01-223-3730

## **REEL, ASSEMBLY, HOSE**

Wall mounted, spring actuation, 3,000 pound pressure capacity. 24 feet hose capacity. Fuel/oil, hydrocarbon media. 1.810 inch diameter by 8.470 inch width.

01-117-3695      Right Hand

01-254-1195      Left Hand

## **REEL, STATIC, DISCHARGE**

Reel with 50 feet of aircraft grounding cable. Furnished with grounding hardware on free cable end.

01-150-3807

## **STRAP, HOSE REEL**

Nylon webbing, Cadmium Plated bracket, Black. 3 inches wide by 7-3/4 inches long.

01-204-0638



# CLASS 4940

## MISCELLANEOUS MAINTENANCE AND REPAIR SHOP SPECIALIZED EQUIPMENT

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### AGITATOR, PAINT, SHAKER

1/4 HP AC, 110V, 60 Cycle, Single phase motor. With automatic timer, four can adapter unit. pedestal base with feet and square can adapter unit. 1/4 pint to 1 gallon, rated capacity.

00-243-2735

### APPLICATOR, REPAIR PATCH

Polyethylene material. 3.500 inches long x 2.25 inches high (Squeegee).

01-253-7376

### AUGER MACHINE, PIPE AND SEWER, POWER OPERATED

60 HZ, single phase, with flexible leader, arrow head drill, down head boring gimlet.

01-266-1491 small auger  
 01-267-0640 large auger

### CLEANER, PRESSURE, SOLVENT-WATER

1000 PSI delivery at 2 gpm. 1.5 HP, 115 V, single phase, 60 Hz. Special features: .500 HP. Power source: AC/D/C electric motor.

01-151-8907

### CLEANING GUN, PNEUMATIC

Solvent flow regulated by nozzle. Trigger valve operated. Straight nozzle. Air connection. Threaded 3/8-18 inch diameter, IPS. Solvent connection threaded, 1/4-18 IPS.

00-248-0866

### CUP, PAINT, SPRAY GUN

Metal, with cover. 1/4-14 screw thread. Devilbiss Model P-EGA-502.

00-222-2675 8-oz screw mounting  
 00-190-5164 qt clamping

### DEMAGNETIZER

A/C, 115 V. 50/60 Hz.

01-296-1800

### GLOVE, PROTECTIVE, CLEANER

RH Rubber with: 6 eyelets, 6 studs, and 1 Spring Steel ring.

00-062-5661

### GLOVE, SAND BLASTER

01-173-4676 large

### GUN, AIR BLOW

Straight design, with removable tip, threaded internally.

3/8-18 NPT

00-223-8972 button over operation  
 00-223-8973 lever over operation

1/4-18 NPT

00-333-5541\* —

\* Nozzle in accordance DOL Safety and Health Standards.

### HEATER, GUN TYPE, ELECTRIC

Aluminum Alloy housing. 115V AC. Single phase, 60 Hz. With heating element.

Painted Aluminum handle. 750 to 1000 degrees Fahrenheit rating. Any acceptable switch functions. With triangle base plate.

	O/A Lg	H	W
00-986-5899	10	8	A/A

Aluminum handle. 200 to 500 degrees Fahrenheit. 1.44 kilowatt. Fan On-Off and Heating element On-Off switch positions. With 10 foot cable, 3 wire, with plug.

	O/A Lg	H	W
00-785-1162	17	7-1/2	7-3/4

Rubber handle, 500 to 750 degrees Fahrenheit. 1.68 Kilowatt. Fan, On-Off and Heating element, On-Off switch.

	O/A Lg	H	W
01-028-7493	8	9-1/2	5-1/4

### MINI-GUN, HOTAIR

115 V, AC, 7 amps, includes: bench stand, adapter, solder sleeve, and equipment with hot air blower.

00-307-2745

### PARTS KIT, SPRAY GUN

Spray gun end item identification: 4930-00-270-0718.

01-122-6730

For Paint spray gun Model MBC.

01-106-4054

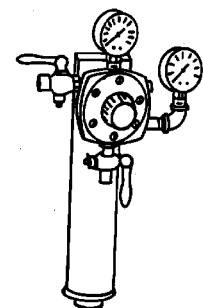
### PRESSURIZING KIT, RADIO

Designed to maintain pressure in antenna tuning. Consists of: Nitrogen cylinder Regulator hose.

00-313-7703

### SEPARATOR, OIL AND WATER, SPRAY GUN

Wall type mounting. Supply line pressure gauge range 0 to 200. PSI Regulated Air pressure gauge range 0 to 100 PSI. 1 regulator, filter/separator CRES.



00-242-4100

### SPRAY GUN, PAINT

Aluminum Alloy body. Hand operation, nonbleeder design. 55 pound pressure rating. 1-1/4 18 NPS air hose connection thread. 3/8-18 NPS fluid hose connection thread. Both with 60 degree beveled tapered seats.

CFM  
 00-261-8415 7-8

Aluminum, machine operation, nonbleeder

# CLASS 4940

design. 30 pound pressure rating. Air consumption rate of 4 CFM. 1-1/4 18 NPS air hose connection thread, 3/8-18 NPS fluid hose connection thread.

00-270-1044

## SPRAY KIT, SELF PRESSURIZED

Consisting of: (6) spray devices, (10) propellant cans, (4) product jars with lids, and (20) dip tubes. End item use: SPRAY KIT.

00-803-6444

## TANK, PRESSURE-FEED, FINISHING- MATERIAL

110 PSI, 2 gal pressure regulator, air motor driven. 8 CFM, 1/4-18 NPS inlet/outlet

00-251-6478

## TUBE AND FLUE CLEANER, BOILER, INTERNAL

Curved water tube. 1 inch outside diameter tube accommodation. Air motor powered with hose. Flexible shaft not included.

	Dia/In.	Lg/ft
00-224-7777	.250	25

## ULTRASONIC DEGREASER

Stainless Steel 6 to 10 gallon tank. 120 V, 60 Hz, 10, 15 AMPS. 1000 Watt thermostatically controlled heater. Adjustable 0 to 210 degrees Fahrenheit.

01-284-7726

## WORK STATION KIT, ELECTROSTATIC CONTROL

Consists of: (2) static dissipative rigid table mats, (1) common point ground system, (1) adjustable wrist strap cuff, (1) wrist strap cord with current limiting resistor, and (1) alligator clip. To be used in clean room environment.

01-250-4235

Consists of: (1) 15 feet ground cord, (1) coil, (1) small wrist band, (1) large wrist band, and a Work surface (24 by 24) inches. Made of 10 Mill conductive plastic sheet, with 2 storage pouches.

01-168-2044

Consists of: (1) Common point ground system table, (1) static dissipative soft table mat, (1) wrist strap cord with current limiting resistor, (1) adjustable size wrist cuff, and (1) alligator clip. To be used in all areas other than clean rooms or laminar flow booths where ESD sensitive items are handled.

01-250-4236

Consists of: (1) Static dissipative portable work surface, (1) common point ground system, (1) adjustable size wrist strap cuff, (1) wrist strap cord with limiting resistor used in situations where other static control work stations are not available, and (1) alligator clip.

01-250-4237

# GROUP 51 HAND TOOLS

## CLASS 5110 HAND TOOLS, EDGED, NONPOWERED

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### ADZ

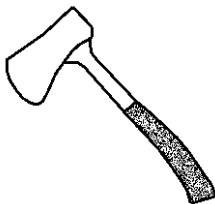
Carpenter's full type head. Consists of: a head, a rectangular eyehole, and a thin arched blade curved upward and at right angles to the handle. Cutting edge is 3-1/2 to 5 inches wide. Length from cutting edge to top is 8-1/2 to 9-3/4 inches. Head weight without handle is 3 to 5 pounds. Furnished with handle which is properly fitted into eyehole and then disassembled.



00-243-0865<sub>NP</sub>

### AX, SINGLE BIT

Intended for use as a utility tool on life boat and life raft. Chopping ax with curved, forged Steel handle, Rubber grip, with sheath. Cutting edge 3 inches wide. Head and handle assembly is 13-1/8 inches overall length.



00-720-0711<sub>NP</sub>

Chopping ax fitted with 31 inch long curved, wooden handle, 4 pound head, 4-3/4 inch width of cutting edge.



00-293-2336<sub>NP</sub>

Intended for general use in forestry service. 24

inch handle length, 2-1/4 pound head, 3-15/16 inch cutting edge.

00-293-2339<sub>NP</sub>

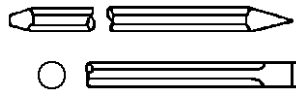
House Ax. 18 inch long handle, 2-1/4 pound head, 3-15/16 inch cutting edge.



00-272-2699<sub>NP</sub>

### BAR, CHISEL

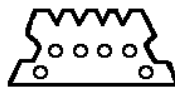
Chisel bars for cold cutting and prying. 60 degree chisel point one end, other end blunt. 1 inch stock size and 36 inch overall length.



00-240-6031<sub>NP</sub>

### BLADE, CARTON OPENER

Heavy duty blades for carton opener, 5110-00-345-5289. Steel, double-edge. 5 blades per package.



00-293-2866<sub>NP</sub>

### BLADE, COPING SAW

6-1/2 inches long spring, Steel coping saw blades with pin ends. Fits coping saw frame, NSN 5110-00-555-9359. 12 blades per package. Teeth per inch (TPI) and width as noted.

	TPI	W
00-243-6911 <sub>NP</sub>	16	.093

### BLADE, KNIFE

High Carbon Steel. Used with X-acto handles, No 1, ISGK, 3, and 3111 for stencils, scoring, etching, small holes, and notches. Fixed blade for light duty holder.



00-765-4144<sub>NP</sub>

High Carbon Steel. For use with X-acto handles No. 1, 3, and 7KP.



00-359-6478<sub>NP</sub>

High Carbon Steel packing and shipping knife blades. 1-3/4 inches long 3/4 inches wide. 5 blades per package.

00-293-2865<sub>NP</sub>

### BLADE, HAND HACKSAW

Steel hand hacksaw blades, flexible back. Fits standard hacksaw frame. 5110-00-289-9657. 1/2 inches wide by 0.025 inches thick. Teeth per inch (TPI) and length listed in inches. 10 blades per bundle. High-speed Steel.



	Lg/In.	TPI
00-277-4587 <sub>NP</sub>	10	18
00-277-4588 <sub>NP</sub>	10	24
00-277-4589 <sub>NP</sub>	10	32
00-277-4590 <sub>NP</sub>	12	18
00-277-4591 <sub>NP</sub>	12	24
00-277-4592 <sub>NP</sub>	12	32

Rod-shaped, abrasive-surfaced blade. Fits

# CLASS 5110

standard 12 inch hacksaw frame, 5110-00-289-9657. Makes straight or irregular cuts in Titanium, Stainless Steel, Glass, Ceramics, Cobalt and Glass, or Carbon-filled Plastics. Rust and scale resistant Tungsten Carbide. 5 blades per package.

00-927-1063<sub>NP</sub>

## BLADE, JEWELER'S SAW

5 inches long Steel jeweler's saw blade. Fits Frame Jeweler's Saw, 5110-00-223-4972. Used for straight or contour cutting of metal, wood, Plastic, Bone. Gold and/or similar materials. 12 blades per package.

	No.	W/In.	Thk/In.	TPI
00-293-2495 <sub>NP</sub>	3/0	.020	.010	66
00-243-8757 <sub>NP</sub>	7/0	.014	.007	80
00-293-0025 <sub>NP</sub>	2	.028	.014	48
00-241-2582 <sub>NP</sub>	4	.032	.015	40

## BLADE, KEYHOLE SAW

Metal cutting blade, 11 inches long with punched butt end.



00-892-5844<sub>NP</sub> 11 points per in.

## BLADE, KNIFE, CRASH RESCUE

Steel, single bevel edge blade. 2-1/16 inches overall length. 1/32 inches thick. Used with Department of Air Force rescue knife, 53B7128. End item identification: 5110-00-524-6924.

00-098-4326<sub>NP</sub>

## BLADE, WIRE STRIPPER

3 holes, 10 to 14 gage. For use with Type E 600V Teflon wire. Supplied in pairs. Used on 5110-00-177-7285 and 5110-00-132-1863.

01-075-0761

3 holes, 10 to 14 gage. For use with Type EE 1000V Teflon wire. Supplied in pairs.

01-075-0763

6 holes, 16 to 26 gage. For use with Type TE 1000V Teflon wire. Supplied in pairs.

01-075-0762

10 to 14 gage.

00-115-2356

16 to 26 gage. 2 blades. For fiberglass insulation and Plastic.

00-115-2358

26 to 30 gage, 2 blades. For fiberglass and Plastic insulation.

00-115-2357

## BRACE, BIT RATCHET

Box ratchet brace. Ball-bearing chuck holds tapered square. Shank bits from 3/16 to 1/4 inches on the small side and 5/16 to 7/16 inches on large end. Or round shank bits from 1/8 to 1/2 inches diameter.

Sweep/In.

00-293-1957	8
00-221-1188	12

## CHISEL, BLACKSMITH'S

Handled chisels for working Iron or Steel. Furnished with 16 inch long Hickory handle.

Cold Chisel. For cutting and necking cold metals. 1-1/2 inch cutting edge, 6-1/2 inches long blade.



00-221-1075<sub>NP</sub>

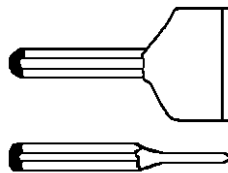
Hot Chisel. For cutting hot Iron and Steel. 1-3/4 inches long cutting blade, blade overall length 6-7/8.



00-221-1076<sub>NP</sub>

## CHISEL, BRICK

Straight shank, 7 inches long with 4 inches long cutting edge.



00-233-9110<sub>NP</sub>

## CHISEL, BUTT, WOOD-WORKING

Tang style butt chisels for pattern-makers, cabinet-makers, carpenters, etc. Plastic handle with Steel cap. 2-1/2 inch long blade.

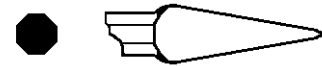
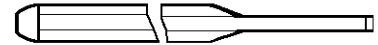


Blade Width/In.

00-585-8433	1/4
00-585-8425	3/8
00-585-8427	1/2
00-585-8426	5/8
00-585-8428	3/4
00-585-8429	1
00-585-8430	1-1/4
00-585-8432	2

## CHISEL, CAPE, HAND

Normal duty cape chisel for chip cutting metal. Double-beveled cutting edge. Wear and shock resistant hot forged Alloy Steel.

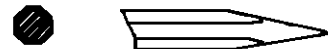
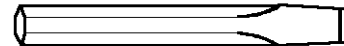


W/In. O/A Lg/In.

00-223-1087 <sub>NP</sub>	1/8	4-1/2
00-197-9499 <sub>NP</sub>	1/4	5
00-197-9497 <sub>NP</sub>	5/16	6
00-222-2128 <sub>NP</sub>	3/8	6-1/2
00-236-2041 <sub>NP</sub>	1/2	7

## CHISEL, COLD, HAND

Forged Steel cold chisels. For cutting bolts, rivet heads, and Steel plate. Double-beveled cutting edge.



Regular length

	O/A Width/In.	Lg/In.
00-234-1927 <sub>NP</sub>	1/4	4
00-242-3457 <sub>NP</sub>	3/8	5
00-186-7107 <sub>NP</sub>	1/2	5-3/4
01-335-1418 <sub>NP</sub> *	1/2	6
00-221-8132 <sub>NP</sub>	5/8	6
01-335-1419 <sub>NP</sub> *	5/8	6-1/2
00-236-3272 <sub>NP</sub>	3/4	6-1/2
00-236-3273 <sub>NP</sub>	7/8	7-1/2
00-234-1944 <sub>NP</sub>	1	8

\* Non Spec Item. GSA replacement tool.

Long length

	O/A Width/In.	Lg/In.
00-293-3385 <sub>NP</sub>	3/4	12
00-234-1949 <sub>NP</sub>	1	12

Nonsparking nonmagnetic cold chisels. For use where flammable dust, gasses, and explosives are present. Made of nonferrous alloys.



	O/A Width/In.	Lg/In.
00-221-1372 <sub>NP</sub>	27/32	7-3/4
00-222-2127 <sub>NP</sub>	1-1/32	9

## CHISEL SET, BUTT, WOOD-WORKING

Tang style butt chisels for pattern-makers, cabinet-makers, carpenters etc. Plastic handle with Steel cap. 2-1/2 inch long blade. 5 piece chisel set.

	W/In.
00-945-8055	1/4, 1/2, 3/4, 1, 1-1/2.

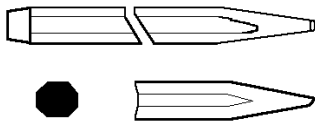
## CHISEL SET, COLD HAND

Set of 5 hand chisels (metal working). Hot-forged of Alloy Steel and having a double-beveled cutting edge ground on both sides to an included angle of 65 degrees. Has good cutting wear and shock-resisting properties.

	W/In.
00-357-5593	1/2, 5/8, 3/4, 7/8, 1

## CHISEL, DIAMOND POINT, HAND

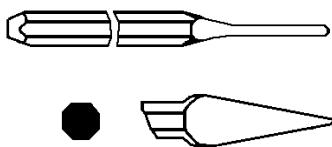
Normal duty. Hot forged Alloy Steel.



	W/In.	O/A Lg/In.
00-221-8121 <sub>NP</sub>	1/8	4-1/2
00-223-1079 <sub>NP</sub>	3/8	6-1/2
00-223-1103 <sub>NP</sub>	3/4	8

## CHISEL, HALF ROUND NOSE, HAND

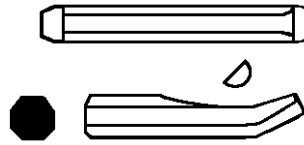
Normal duty. Hot forged Alloy Steel. Semicircular cutting edge with single bevel.



	W/In.	O/A Lg/In.
00-222-2117 <sub>NP</sub>	1/4	5-1/2
00-222-2118 <sub>NP</sub>	5/16	6
00-222-2119 <sub>NP</sub>	3/8	6
00-222-2120 <sub>NP</sub>	1/2	7

## CHISEL, RIVET BUSTER, HAND

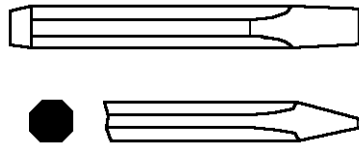
Rivet buster chisel for cutting hardened heads or burred ends of installed rivets. Single bevel work-end, uniformly bent.



	W/In.	O/A Lg/In.
00-293-0556 <sub>NP</sub>	5/8	11-1/2

## CHISEL, SIDE CUTTING, HAND

Side-cutting cold chisel. Tapered work-end with single-beveled cutting edge.



	W/In.	O/A Lg/In.
00-221-8133 <sub>NP</sub>	7/8	7

## CHISEL, FIRMER

Socket style woodworker's chisel. Sharpened and honed with beveled edge. Hand forged and heat-treated Steel blade, with Leather-capped hardwood handle.



	Blade Width/In.	O/A Lg/In.
00-640-5419	1	6-1/4
00-640-5423	1-1/2	6-1/4
00-640-5424	2	4

## CHISEL, FLOOR

18 inch long floor chisel with 2 inch wide cutting edge. For ripping floor boards, clapboards, shingles, etc. 3/4 inch tool Steel shank.



00-223-1084<sub>NP</sub>

## CHISEL, PARING

Woodworker's paring chisel with straight tanged shank. Hardwood handle with metal ferrule.



	Blade Width/In.	O/A Lg/In.
00-227-5037 <sub>NP</sub>	1/4	5-1/4
00-186-8167 <sub>NP</sub>	1/2	6-3/4
00-186-8169 <sub>NP</sub>	3/4	6-3/4
00-186-8170 <sub>NP</sub>	1	7

## CHISEL SET, FIRMER

Set of six woodworker's chisels, socket style. Steel blade, hand-forged, and heat treated. Beveled edges sharpened and honed. Blade width's: 1/4, 1/2, 3/4, ( 4-1/2 in. long ); 1, 1-1/4, 1-1/2, ( 6 inches long ). Plastic roll container.

00-449-6907

## CUTTER, BOLT

Adjustable rigid-head. Tempered to cut Wrought-Iron, annealed soft-Steel bolts, rivets, and cold-drawn screw stock.

Angular Cut ( Flush-Cutting).



	Cap/In.	Lg/In.
00-224-7055	1/4	14
00-224-7056	3/8	24
00-224-7057	9/16	36

Clipper Cut (Close-Cutting).



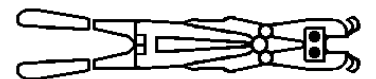
	Cap/In.	Lg/In.
00-596-9162	5/16	18
00-596-9156	3/8	24
00-596-9155	1/2	30
00-188-2524	9/16	36

## CUTTER, CABLE, HAND OPERATED

Compound lever, hand operated. Drop forged Steel. Red Plastic insulated handles. For use on Aluminum and Copper cables.

01-090-5872

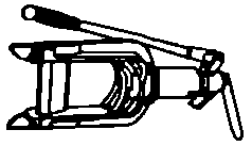
Hand-operated cable and bolt cutter. Compound lever, center-cutter type with groping hook guide and insulated handles. Use for cutting electrically charged barbed wire, cables, and transmission lines. Cutting capacity: 3/8 inch diameter solid mill Steel wire, overall length 21 inches.



00-541-6730

Hydraulic cable cutter unit. For cutting in place armored and Lead sheathed cables, up to 2-1/2 inches in diameter. Consists of pump, necessary valves, and allied mechanisms. Minimum pressure 9000 PSI.

# CLASS 5110



00-595-8267

00-288-8722

For cutting 1 3/4 to 8-1/2 inch holes or discs in 16 gage mild Steel sheets. Also cuts Brass, Aluminum, sheet fiber, Plastic, or wood up to 3/8 inches thick. Auger bit shanked body holds nongraduated sliding bar with tool bit. Pivots on replaceable 1/4 inch twist drill bit, supplied with setscrew wrench.

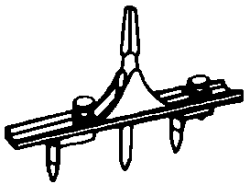
	Size/In.
00-293-0460	1/8 to 2
00-221-1049	2 to 4
00-529-5092	4 to 6

**NOTE: For replacement cutting wheels see "CUTTING WHEEL, PIPE CUTTER".**

## CUTTER, CIRCLE

Adjustable circle and hole cutter. For cutting washers and gaskets from conventional sheet gasket materials such as: Asbestos, Rubber, Canvas, Cork, and similar pliable materials.

Center pivoting type with auger bit shank. Cutter blade holders slide in a graduated crossbeam and lock in place. Cuts 5/8 to 5-1/2 inch inside and 3/4 to 6 inch outside circles, in 1/8 inch thick material.



00-222-4522<sub>NP</sub>

## CUTTER, GLASS

Glass cutters for sheet or round gage glass. Hardened tool Steel wheels honed and beveled for long cutting life.

Standard (Sheet) cutter with single fixed wheel. Three break notches.



00-222-4400<sub>NP</sub>

Turret head type with six cutter wheels. Two break notches. Replaceable wheels.



00-222-4401<sub>NP</sub>

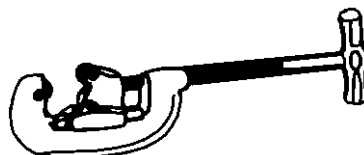
Circle cutter. Adjustable graduated bar with integral cutting head and replaceable cutter wheel. 2 to 24 inch range.



01-342-3196<sub>NP</sub>

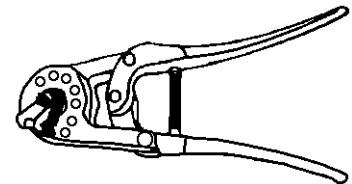
## CUTTER, PIPE

Single-wheel type pipe cutters. For cutting Steel or Wrought-Iron pipe, with one cutter wheel and two rollers. Sliding hand screw feed. Pipe size cutting range as shown below.



## CUTTER, RIVET

Squeeze type with length gage. Cuts aircraft and other rivets with universal or countersunk heads. Cuts 1/6 to 1/4 inch diameter rivets, with lengths of 1/4 to 3/4 inches.

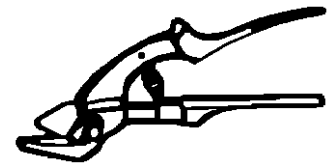


00-180-2892

## CUTTER, STEEL STRAPPING

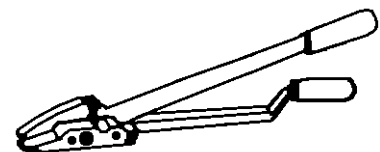
Hand-operated Steel strapping cutters. Cuts tightly drawn or loose strapping. Forward cutting action.

Light duty. Cuts strapping up to 3/4 inches wide and up to 0.035 inches thick. Fixed upper jaw blade.



00-771-3732

Heavy duty. Cuts strapping up to 2 inches wide and 0.050 inches thick. Removable upper jaw blade.



00-223-6281

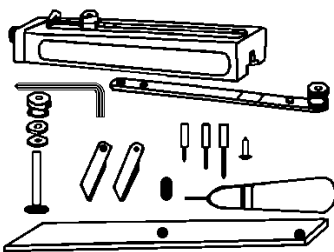
## CUTTER, TILE, ASPHALT

Portable hand operated with built in handle. Makes up to 12 inch long square and diagonal cuts 1/16 inches to 3/16 inches thick, on all types of resilient floor tile. Weight 45 pounds.

00-570-9017

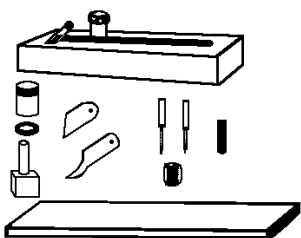
Movable pivoting tools. Large and handy models include: Plastic block, pivot post, 6 blades, pivot pins, and instructions, packed in metal carrying case. Also includes: Plastic-coated work board with center pivoting ferrules.

Large model with two 12 inch extensions. Cuts circles 1 inch to 13 inch diameter; with extensions cuts circles up to 36 inches diameter. Cuts material from 0.001 - 3/4 inch thick. 18 inch square work board.



00-288-9300

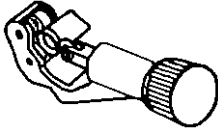
Handy model without extensions. Cuts circles, irregular shapes, and strips. Cuts diameters from 1/4 to 6 inches. Cuts material from 0.001 - 3/8 inches thick. 6 inches square work board.



## CUTTER, TUBE

Cutter for Copper, Aluminum, Brass, and Lead tubing. Steel frame and deburring tool and Steel Alloy cutting wheel. Rollers rotate freely and align tubing as it is cut. Cuts without crushing tubing. Tubing outside size cutting range as shown.

Enclosed feed. For close flare cut. Four rollers and spare cutting wheel.



Range/In.

00-288-6520	1/8 to 1-1/8
00-293-3402	1/4 to 1-3/8
00-288-6521	3/8 to 2-5/8

Sliding feed. Positive feed adjustment. Two facing Steel rollers. Comfortable handle grip.

Range/In.

00-965-0878	1/8 to 1/2
-------------	------------

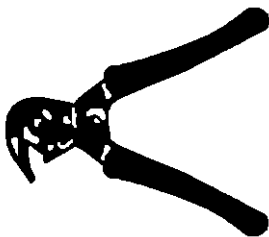
## CUTTER, WIRE ROPE, HAND OPERATED

Bolt clipper style compound lever wire rope cutter. Cuts soft wire rope up to 7/8 inches in diameter. Center-cutter type, forged Steel jaws with beveled cutting edges. Supplied with an extra pair of cutting jaws. 43 inch overall length.



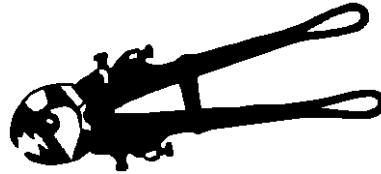
00-221-1047

Plier style compound lever wire cutter, for electrically charged barbed wire. Made of Carbon Steel, with insulated handles. Center cutter type 0.116 inch maximum diameter cutting capacity.



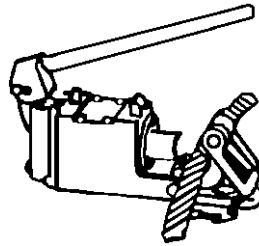
00-595-8229

Shear style compound lever wire rope cutter. Cuts preformed flexible Carbon and CRES Steel aircraft control cable, up to 1/4 inch diameter. 14 inch overall length.



00-224-7053

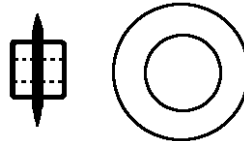
Horizontal-cutting, hydraulic wire rope cutter. Self-contained hydraulic unit develops 16 ton thrust, by continuous hand pumping. Easily cuts high grade plow Steel wire rope, up to 1-1/8 inches in diameter. 15 inches overall length.



00-224-7058

## CUTTING WHEEL, PIPE CUTTER

Replacement cutting wheels for Steel pipe cutters with sliding feeds. Smooth cutting edge cuts a variety of pipe and tubing. Designation letter as indicated.



Single wheel 1/8 to 2 inch cutting range. Size: 1-1/4 inch diameter, 0.745 inches wide, 0.345 inch diameter bore.

00-837-0990<sub>NP</sub>

Three wheels. 2 to 6 inch cutting range. Each wheel size: 1-1/2 inch diameter blade, 3/4 inch diameter hub, 11/32 inch diameter bore. Designation: F, G, and H.

00-620-1345<sub>NP</sub>

## CUTTING WHEEL, TUBE CUTTER

Cutting range: 1/8 to 1-5/8 inches.

00-443-4195<sub>NP</sub>

## DIE SET, METAL STAMPING, HAND

Heavy duty Tool-Steel stamping set. For use on Steel, Wood, Leather, etc. Each set is packed in a wooden box. Character height size as shown.

Numeral Figure stamping. Set has Gothic numeral from 0 to 8. Invert figure 6 for 9.

	H/In.
00-289-0001	1/16
00-289-0002	1/8
00-289-0003	1/4
00-289-0004	3/8

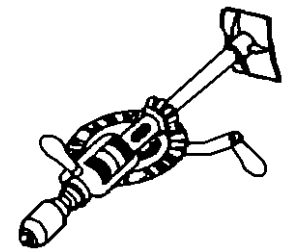
Letter stamping. Set has complete alphabet of capital letters with period and ampersand (&), except as noted.

	H/In.
00-289-0005	1/16
00-289-0006	1/8
00-293-1904	3/16
00-293-1905*	3/16
00-289-0007	1/4
00-289-0008†	3/8

\* With numbers 0 to 8.  
† Period not furnished.

## DRILL, BREAST

Two-speed breast drill with spirit level. For use in drilling wood or metal. 3-jaw chuck holds straight round-shank drill bits up to 1/2 inches. Adjustable breastplate, detachable wood grip, and crank handle.

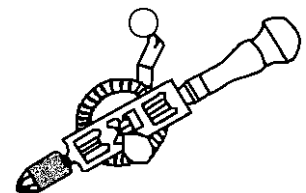


00-596-9323

## DRILL, HAND

Single-speed hand drills with crank driven gears. 3-jaw chucks. Non-ratchet, wood, or Plastic handle.

Rigid hollow handle. 8 wood-boring drill bits in handle (sizes 1/16 to 11/64 inch diameter). Chuck holds straight-shank drills up to 3/8 inch diameter with side handle.



00-293-3411

## DRILL, MASONRY, HAND

Star (four flute) stone drills. Forged Steel drills with slightly pointed cutter face and four cutter edges. 12 inches long overall. Cutting size as shown.

# CLASS 5110

	Size/In.
00-240-6141 <sub>NP</sub>	1/4
00-236-2047 <sub>NP</sub>	3/8
00-186-7105 <sub>NP</sub>	1/2
00-236-2046 <sub>NP</sub>	3/4

## DRILL SET, MASONRY, HAND

Drill set in roll kit. Consists of: one Steel holder with Rubber grip, protective flange, and six twist-fluted drill points (sizes: 3/16, 1/4, 5/16, 3/8, 7/16, and 1/2 inches) with round tapered shanks. 0.300 inch diameter on small end.

00-698-7966

## DRILL, PUSH

Hand operated, automatic push drill. Actuated by Bronze spiral pushing on handle. 8 drill points, 1/16 to 11/64 inches diameter, in magazine handle. Chrome-Plated finish. About 10 inches long.

00-293-3410<sub>NP</sub>

## FILE, HAND

Heat treated, hardened, and tempered hand files. Standard American and Swiss pattern files for use as indicated. With tang, except as noted, for attachment to wood handles. Blade length as indicated.

Flat, tanged, curved-tooth file. Rigid, milled teeth, standard cut faces, safe edges. Non Spec item.

	Lg/In.
00-156-0215 <sub>NP</sub>	8

### AMERICAN PATTERN

Cant type. Triangular, single-cut. Sharpens crosscut saws with M-shaped teeth, circular saws, and other saw teeth, with less than 60 degree angle.



	Lg/In.
00-242-8179 <sub>NP</sub>	6
00-250-6512 <sub>NP</sub>	8

Cross-cut type. Two rounded edges.

	Lg/In.
00-204-0616 <sub>NP</sub>	8

Flat type. Slightly tapered.

Double-cut on face, single cut on edge. For general purpose filing.



Bastard Cut

	Lg/In.
00-249-2848 <sub>NP</sub>	8
00-249-2849 <sub>NP</sub>	10
00-234-6539 <sub>NP</sub>	12
00-203-5486 <sub>NP</sub>	14

Second Cut

	Lg/In.
00-234-6531 <sub>NP</sub>	6
00-234-6534 <sub>NP</sub>	8
00-234-6537 <sub>NP</sub>	10
00-203-4854 <sub>NP</sub>	14

Smooth Cut

	Lg/In.
00-203-4935 <sub>NP</sub>	8
00-249-2850 <sub>NP</sub>	10
00-234-6544 <sub>NP</sub>	14
00-203-4936 <sub>NP</sub>	12

Half-round, Slightly tapered, one side flat. For general purpose filing and maintenance work.



Bastard Cut

	Lg/In.
00-241-9147 <sub>NP</sub>	6
00-241-9150 <sub>NP</sub>	8
00-241-9153 <sub>NP</sub>	10
00-252-4015 <sub>NP</sub>	12
00-203-4950 <sub>NP</sub>	14

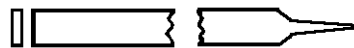
Second Cut

	Lg/In.
00-241-9145 <sub>NP</sub>	4
00-241-9148 <sub>NP</sub>	6
00-241-9151 <sub>NP</sub>	8
00-249-2858 <sub>NP</sub>	10
00-203-4941 <sub>NP</sub>	12
00-241-9158 <sub>NP</sub>	14

Smooth Cut

	Lg/In.
00-241-9146 <sub>NP</sub>	4
00-241-9149 <sub>NP</sub>	6
00-241-9152 <sub>NP</sub>	8
00-233-7683 <sub>NP</sub>	10
00-241-9156 <sub>NP</sub>	12
00-241-9159 <sub>NP</sub>	14

Hand Type. Regular, double-cut face. Single-cut and safe edge. Used for flat surface and ideal for filing close to shoulder with safe edge.



Bastard Cut

	Lg/In.
00-156-0049 <sub>NP</sub>	6
00-156-0052 <sub>NP</sub>	10

Multi Cut

	Lg/In.
01-335-1590	10

Smooth Cut

	Lg/In.
00-156-0059 <sub>NP</sub>	10

Knife type. Slightly tapered. Knife cross-section, with angle of 9 to 15 degrees between sides. Double-cut on wide flat, single-cut on thin edge. Used for keyways or slots.



Bastard Cut

	Lg/In.
00-234-6569 <sub>NP</sub>	10

Second Cut

	Lg/In.
00-203-4948 <sub>NP</sub>	6
00-234-6567 <sub>NP</sub>	8
00-234-6570 <sub>NP</sub>	10

Smooth Cut

	Lg/In.
00-203-4552 <sub>NP</sub>	6
00-203-4553 <sub>NP</sub>	8
00-203-4554 <sub>NP</sub>	10

Lead-flate. Flat, slightly tapered. Single-cut teeth. Files Lead, Babbitt, and other soft metals.



	Lg/In.
00-156-0131 <sub>NP</sub>	12

Mill, regular. Slightly tapered. Single-cut on flats and square edges. For general filing and sharpening work.



Bastard Cut

	Lg/In.
00-241-9132 <sub>NP</sub>	6
00-242-5384 <sub>NP</sub>	8
00-242-5385 <sub>NP</sub>	10
00-242-5386 <sub>NP</sub>	12
00-242-5387 <sub>NP</sub>	14

Second Cut

	Lg/In.
00-241-9133 <sub>NP</sub>	6
00-241-9134 <sub>NP</sub>	8
00-203-4556 <sub>NP</sub>	10
00-241-9140 <sub>NP</sub>	12
00-241-9143 <sub>NP</sub>	14

Smooth Cut

	Lg./In.
00-243-7965 <sub>NP</sub>	6
00-241-9135 <sub>NP</sub>	8
00-241-9138 <sub>NP</sub>	10
00-203-4645 <sub>NP</sub>	12
00-241-9166 <sub>NP</sub>	14

Round, regular. Tapered. For enlarging circular openings, elongating holes, etc. Double-cut bastard faces; single-cut second and smooth faces. Length and diameter of largest section as shown.



### Bastard Cut

	Lg./In.	Dia./In.
00-234-6545 <sub>NP</sub>	4	11/64
00-234-6548 <sub>NP</sub>	6	15/64
00-234-6554 <sub>NP</sub>	10	3/8
00-234-6557 <sub>NP</sub>	12	1/2
00-234-6560 <sub>NP</sub>	14	5/8

### Second Cut

	Lg./In.	Dia./In.
00-806-1000 <sub>NP</sub>	4	11/64
00-234-6549 <sub>NP</sub>	6	15/64
00-234-6552 <sub>NP</sub>	8	5/16
00-234-6555 <sub>NP</sub>	10	3/8
00-203-4692 <sub>NP</sub>	14	5/8

### Smooth Cut

	Lg./In.	Dia./In.
00-203-4647 <sub>NP</sub>	4	3/16
00-234-6559 <sub>NP</sub>	12	1/2
00-234-6562 <sub>NP</sub>	14	5/8

Square. Tapered, double-cut. For enlarging square holes, filing slots, keyways, etc.



### Bastard Cut

	Lg./In.
00-203-4731 <sub>NP</sub>	6
00-238-9658 <sub>NP</sub>	8
00-203-9774 <sub>NP</sub>	10
00-238-9664 <sub>NP</sub>	12
00-238-9667 <sub>NP</sub>	14

### Second Cut

	Lg./In.
00-203-4714 <sub>NP</sub>	4
00-203-4751 <sub>NP</sub>	6
00-203-9758 <sub>NP</sub>	8
00-203-9804 <sub>NP</sub>	10
00-203-9806 <sub>NP</sub>	12

### Smooth Cut

	Lg./In.
00-203-4781 <sub>NP</sub>	6
00-238-9660 <sub>NP</sub>	8
00-238-9666 <sub>NP</sub>	12

Taper. Triangular, single-cut. For sharpening any saw with 60 degree angle teeth.

### Regular



	Lg./In.
00-234-6522 <sub>NP</sub>	6
00-516-3822 <sub>NP</sub>	8
00-234-6524 <sub>NP</sub>	10

### Slim



	Lg./In.
00-234-6526 <sub>NP</sub>	4
00-423-0720 <sub>NP</sub>	5
00-234-6528 <sub>NP</sub>	6
00-234-6529 <sub>NP</sub>	8

### Extra Slim



	Lg./In.
00-529-3206 <sub>NP</sub>	4
00-242-8185 <sub>NP</sub>	7
00-293-3428 <sub>NP</sub>	8

### Double-Extra-Slim.

	Lg./In.
00-239-7538 <sub>NP</sub>	7

Three-squared. Triangular, tapered. Double-cut, with sharp corners for filing internal angles, cleaning out corners, etc. Also used for filing taps and cutters in the annealed state.



### Bastard Cut

	Lg./In.
00-241-7675 <sub>NP</sub>	6
00-241-9164 <sub>NP</sub>	10

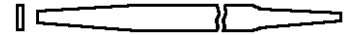
### Second Cut

	Lg./In.
00-243-0938 <sub>NP</sub>	6
00-241-9165 <sub>NP</sub>	10

### Smooth Cut

	Lg./In.
00-241-9160 <sub>NP</sub>	6
00-241-9167 <sub>NP</sub>	10

Warding type. Rectangular tapered. Double-cut on flats, single-cut on squared edges. For filing notches in keys and locks, narrow slots, and in close spaces.



### Bastard Cut

	Lg./In.
00-243-8099 <sub>NP</sub>	6
00-204-0719 <sub>NP</sub>	8
00-204-0720 <sub>NP</sub>	10

### Second Cut

	Lg./In.
00-204-0722 <sub>NP</sub>	6
00-238-9649 <sub>NP</sub>	8
00-204-0723 <sub>NP</sub>	10

### Smooth Cut

	Lg./In.
00-204-0726 <sub>NP</sub>	6
00-243-8100 <sub>NP</sub>	8
00-204-0725 <sub>NP</sub>	10

Milled, curved teeth. Flat flexible blade with out tang. Single-cut on flats, uncut (safe) edges. For finishing flat or slightly curved surfaces of soft materials such as Aluminum, Brass, or Copper. May be used on mild Steel. Overall length and cut coarseness as shown.

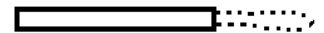


	Lg./In.	Cut
00-245-3015 <sub>NP</sub>	14	Fine

**NOTE: For file holders see " FILE HOLDER ".**

### SWISS PATTERN

Contact point with flat handle. Double-cut faces, uncut (safe) edges. Used for cleaning electrical contact points.



	Lg./In.
00-595-8295 <sub>NP</sub>	5-1/4

Hand file with tang. Double-cut faces. Single-cut one end, safe other end. Flat finishing file.



	Lg./In.
00-233-7749 <sub>NP</sub>	6

Needle point hand type. Double cut, 6-1/4 inches long.

00-245-4177 <sub>NP</sub>	Round
00-239-3269 <sub>NP</sub>	Half-round
00-239-7590 <sub>NP</sub>	Three-square
00-156-0063 <sub>NP</sub>	Flat
00-239-7602 <sub>NP</sub>	Square
00-156-0062 <sub>NP</sub>	Equaling
00-239-7614 <sub>NP</sub>	Slitting

# CLASS 5110

## Knife

	Cut	Lg/In.
00-233-9687 <sub>NP</sub>	No. 1	4
00-156-0065 <sub>NP</sub>	No. 2	6-1/4

Taper round type. Double cut, No. 0 face.

	Dia	Lg/In.
00-239-7739 <sub>NP</sub>	3/16	6
00-273-0122 <sub>NP</sub>	21/64	10

## FILE SET, HAND

### AMERICAN PATTERN

14-piece file set in roll pack. Components as listed below.

- 3 Half-round, 8 in. bastard, double-cut
- 3 Half-round, 8 in. smooth, double-cut
- 2 Hand-type, 8 in. bastard, regular, double-cut
- 2 Blunt handsaw, 6 in. Extra-slim type, single-cut
- 2 Taper, 6 in. regular, single-cut
- 2 Taper, 6 in. slim, single-cut

00-595-8317

### SWISS PATTERN

6-piece set of double-cut 6 inch files. In Plastic container. Components as listed below.

- 1 Half-round, cut No. 2
- 1 Hand, cut No. 4
- 1 Pillar, cut No. 1
- 1 Square, cut No. 0
- 1 Round Taper, cut No. 0
- 1 Three-square, cut No. 4

00-595-8316

12-piece set of assorted needle files. In Plastic case with cover. Cut number and length as indicated. One each of the following:

Barrette	Half-round
Round	Crossing
Slitting	Joint ( round-edge )
Equaling	Knife
Square	Flat
3-Square	Marking ( half round )

	Cut	Lg/In.
00-204-2685	No. 2	6-1/4
00-541-7999	No. 4	6-1/4

## FILE, THREAD RESTORER

Repairs damaged threads with a few strokes. About 8-1/2 inches long. Restores American National thread forms. Size (TPI ) as noted.



For 9, 10, 12, 16, 20, 27, 28, and 32 TPI.

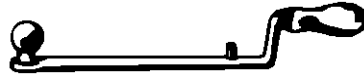
00-516-3812<sub>NP</sub>

For 11, 12, 13, 14, 16, 18, 20, and 24 TPI.

00-373-1691<sub>NP</sub>

## FILE HOLDER

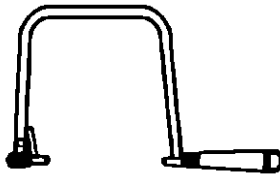
File holder with hand and knob grips. Without blade. Holds 12 inch and 14 inch curved teeth milled files, 5110-00-245-3014, 5110-00-245-3015, and 5510-00-245-3016.



00-239-0644 For flat surfaces.  
00-243-2508 For concave and convex surfaces.

## FRAME, COPING SAW

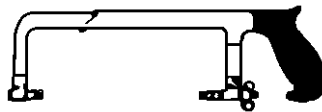
Deep throat coping saw frame. Chrome or Nickel-Plated Steel. For 6-1/2 inch blade. Throat depth, 6-3/4 inch Blade by handle.



00-555-9359

## FRAME, HAND HACKSAW

Adjustable flat hacksaw frame. Bright Chrome or Nickel-Plated Steel, for 10 inch or 12 inch blades. Four 90 degree blade positions tensioned by wing nut. Hard Rubber or Plastic handle.



OPEN GRIP HANDLE

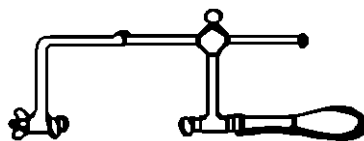
00-289-9657

CLOSED GRIP HANDLE

01-040-8943

## FRAME, JEWELER'S SAW

Medium throat jeweler's saw frame. Adjustable for 3 to 6 inch blade lengths. Thumb-nut blade tensioning. Throat depth, about 2-1/2 inches.



00-223-4972

## HANDLE, CHISEL AND GOUGE

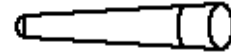
Wood (socket firmer) handles with 3/8 inch thick leather striking cushion.

Size 2, Medium

	Dia/In.	Lg/In.
00-254-3468 <sub>NP</sub>	1-1/16	5-3/8

## HANDLE, FILE

Wood file handle with metal ferrules. Range of files indicated for which each handle is suitable.



Size 1, Small 1 inch diameter 4 inches long

00-263-0342<sub>NP</sub> for 3-6 in. files

Size 3, Large 1-1/2 inches diameter by 5-1/2 inches long

00-263-0341<sub>NP</sub> for 10-14 inch files

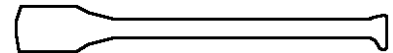
Wood or metal. Tang type shank. Adjustable threaded metal sleeve or screw, and adjustable cap for tightening.

Size 1. Small 1 inch diameter by 4-1/8 inches long.

00-595-8325<sub>NP</sub>

## HANDLE, DOUBLE BIT AX

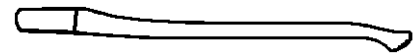
Seasoned hickory double-bit ax handles 36 inches long.



00-254-6635<sub>NP</sub>

## HANDLE, SINGLE BIT AX

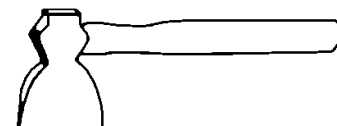
36 inch long handle.



00-288-6573<sub>NP</sub>

## HATCHET, BROAD

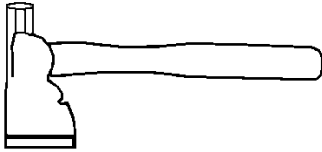
Broad hatchet with 4-1/2 inch cutting edge. Beveled bit on one side only. 14-1/2 to 16-1/2 inch hickory handle. Nonmagnetic, non-sparking.



00-555-8868<sub>NP</sub>

## HATCHET, HALF

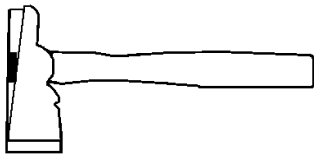
Half-hatchet with 3-1/2 inch cutting edge. Positive grip nail slot, 14 inch hickory handle.



Head Wt/Oz  
00-228-3161<sub>NP</sub> 18 to 26

## HATCHET, LATHING

Beveled slot for drawing nails. The head contains machine cut checkered serrations. Cutting edge 2-1/4 inches wide. Handle 14 inches long.



Head Wt/Oz  
00-223-5379<sub>NP</sub> 12 to 17

## KNIFE, CRAFTSMAN'S

Bevel point. 2-3/4 inch cutting blade length.



00-240-7073

Dental knife for trimming compound and plaster. 1-1/2 inch long fixed Steel blade with sharp point. One-piece hardwood handle. 5-1/4 inch overall length.

00-537-2000<sub>NP</sub> 1-1/2 inch cutting blade

Hawkbill knife. For cutting floor tile and linoleum made of Rubber, Plastic, Vinyl, and Asphalt and similar materials. Steel blade, hardwood handle.



Rigid blade

Lg/In.  
00-344-9900<sub>NP</sub> 1-1/2  
00-240-7070<sub>NP</sub> 2-1/2



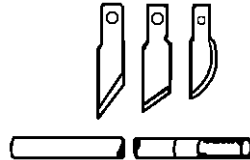
Folding blade

Lg/In.  
3

00-250-8053

Stencil, etching, and multipurpose cutting knife sets. Light to medium duty. Set consists of, 5 inch long blade holder with chuck jaws, for holding removable razor-sharp blades. Good for close corner cuts, templates, mat trimming, etc.

With light-duty holder 5-blade set. Supplied with: one each curved, stencil-cutting and square blade; two beveled blades, 3/4 to 1-1/16 inch long blades.



Handle Lg/In.  
00-293-1585 4.5

6-blade set. Supplied with one each broad and curved blade and two each double-edged and close-corner blades. 1-3/8 to 2-1/8 inch blade length.

00-595-8400

Swivel-blade stencil knife. 4-3/4 inches overall length with 2 spare blades.



00-595-8406

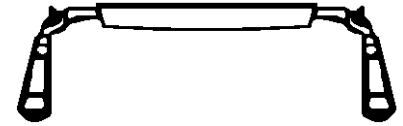
Shoe knife. For cutting and trimming leather goods. Straight square point blade. 4-1/2 inch handle.



Blade Lg/In.  
00-223-7782<sub>NP</sub> 3-1/2  
00-595-8403<sub>NP</sub> 4-1/4  
00-595-8402<sub>NP</sub> 6-1/4

## KNIFE, DRAW

Used by carpenters and woodworkers in shaping and trimming wood. Fixed or rigid handles shaped for comfortable gripping. Carbon Tool Steel blade with beveled edge razor blade, 10 inches by 1-1/8 inches.



00-222-4455

## KNIFE, ELECTRIC HEATING

With soldering iron attachment. Operates on 120 volts and 25 watts. Cooper-Weller or equal.

00-028-9089

## KNIFE, FOLDING

Heavy duty. 4.500 inch high Carbon Steel blade. Half serrated, non-glare satin finish. Thumb stud to open and close blade with one hand. 5.750 inch closed length. 1.250 inch open length. Furnished with Black Synthetic heavy duty sheath with belt loop.

01-436-1548

## KNIFE, POCKET

Electrician's pocketknife with screwdriver, wire scraper, and clevis. Cutting blade 2-3/8 inches long. Smooth Plastic handle.

00-240-5943

Pocketknife with: can opener, punch blade, screwdriver, bottle-opener, and clevis. Cutting blade 3-1/4 inches long. General purpose use.

00-162-2205<sub>NP</sub>

Pocketknife with snap-blade, marlin spike, and shackle. Cutting blade 3 inches long. Shackle locks marlin spike in open position.

00-530-1757<sub>NP</sub>

## KNIFE, RESCUE

Knife assembly. Consists of: a handle, a cover, a key, and two blades.

00-524-6924

## KNIFE, SCRAPING

Paint scraping knives. Also used for applying and smoothing soft compounds, and similar applications. Steel blades, 3 inches wide and 4-1/4 inches long. Overall length 8 inches.



00-223-8827 Flexible  
00-221-1538 Stiff

# CLASS 5110

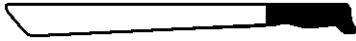
## KNIFE SET, CRAFTSMAN'S

Consists of: 3 holders ( No. 1, No. 2, and Heavy duty No. 5) with blades, 10 extra blades: (1 each, No. 10. 3 each, No. 11. 1 each, No. 16. 1 each, No. 17. 1 each, No. 18. 1 each, No. 19. 1 each, No. 22. 1 each, No. 24). Set enclosed in Plastic or wood.

00-018-0952

## MACHETE, RIGID HANDLE

Tapered blade machete, high Carbon Steel. Used for cutting cane, brush, and small saplings. Also used for chopping ice and snow. 5-3/16 inch handle, without sheath.



	Blade Lg/In.	W/In.
00-813-1286	18	2-1/4
00-024-9681	26	2-5/16

## MITER BOX

Adjustable bench style miter box. Equipped with: bed, back, swinging lever, saw guides, posts, and length gage. Can cut acute angle less than 45 degrees. Takes up to 4 inches stock. Minimum angle capacity, 90 degrees, 9-1/2 inches; 45 degrees, 6-1/2 inches.



00-250-2525

## MULTI-TOOL, FOLDING, POCKET

Bottle opener, can opener, needle-nose pliers, wire cutters, ruler, large & small screwdriver. Also Phillips and medium screwdriver, metal/wood file/saw and awl/punch. Stainless Steel finish. 4.000 inch closed length. Leather sheath.

01-279-9332

Bottle opener, can opener, saw and blunt nose pliers, wire cutters, ruler file, small medium & large flat tip screwdriver. Also Phillips screwdriver, lanyard attachment and knife blade. Satin finish, 4-3/8 inches closed length. Black Synthetic sheath with velcro closure and belt loop.

01-346-5339

Bottle opener, screwdriver, can opener, pliers, wire-cutters and utility blade with wire stripper

and lanyard eye and ruler. Satin finish, 4-3/8 inches closed length. Leather sheath with snap closure and belt loop.

01-346-5340

Bottle opener, can opener, saw, blunt nose pliers, wire cutters, ruler, file, small, medium & large flat tip screwdriver. Also Phillips screwdriver and lanyard attachment and knife blade. Black finish, 4-3/8 inches closed length. Black Nylon sheath with velcro closure and belt loop.

01-346-5341

## NIBBLING TOOL, SHEET METAL

Spring loaded cutting punch. Squeeze grip, hand operated nibbling tool. Cuts round, square, or keyed holes of any size in sheet metal, air ducts, radio chassis, etc. Without adding strain or distortion to the edges. Cutting Capacity: 18-gage Steel and 16-gage Aluminum or Copper.

00-719-6061<sub>NP</sub>

## NIPPERS, END CUTTING

End-cutting nippers for assembly or repair work. Overall length as noted.

Normal duty. With integral cutters for cutting fine wire. Nickel-Steel Alloy with polished jaws. Length listed in inches.



	Lg/In.
00-221-1498 <sub>NP</sub>	6
00-221-1499 <sub>NP</sub>	7

Heavy duty, detachable cutters. Flat adjustable jaws.

	Lg/In.
00-184-9407 <sub>NP</sub>	7

Light duty. Jeweler's cutters for cutting fine wire in jewelry work. Nickel-Steel Alloy with polished jaws.



	Lg/In.
00-221-1503 <sub>NP</sub>	4-1/2

## OPENER, CARTON

Die-cast Zinc carton opener. Concealed blade adjustable for depth of cut. Also removes heavy duty staples. Furnished with a package of 5 blades, 5110-00-293-2866. Flash 420 model.



00-345-5289<sub>NP</sub>

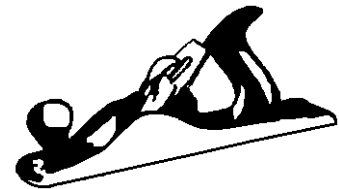
## PLANE, BLOCK

6 inch block plane. For cross-grain planing and general small work. 1-5/8 inch wide cutter.

00-180-0831

## PLANE, JACK

14 inch jack plane with smooth bottom. For preliminary planing of average-sized rough work. 2 inch wide cutter.



00-224-7911

## PLANE, RABBET

4 inch bullnosed rabbet plane. For fine cabinet work. Works close into corners. 1 inch wide cutter.



00-242-2828<sub>NP</sub>

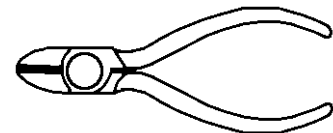
## PLANE, SMOOTH

Smooth planes. For finish smoothing of work. 2 inches wide, cutter, smooth bottom.

	Lg/In.
00-242-3057	9

## PLIERS, DIAGONAL CUTTING

Regular nose, diagonal-cutting pliers. Cutting edges have an angle of approximately 15 degrees, with plane of handle. Used for cutting wire and cotter pins close to flat surfaces.



Regular nose, Plain



Lg./In.  
 00-935-0890\* 4  
 00-618-2700† 4-1/2  
 00-239-8253<sub>NP</sub> 6  
 00-222-2708<sub>NP</sub> 7-1/2  
 \* With cushion grip handles.  
 † With handles covered with Red Vinylite.

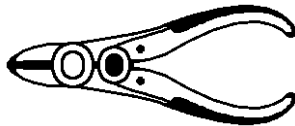
With stripping notches and skinning hole.

Lg./In.  
 00-806-9551<sub>NP</sub> 5  
 00-224-1532<sub>NP</sub> 6

With cushion throat jaws.

Lg./In.  
 00-293-3209 4-1/2  
 00-293-3210 7-1/2

Regular nose, compound action.



Lg./In.  
 01-088-4320<sub>NP</sub>\* 4  
 00-878-6519† 4-1/4  
 01-083-9317‡ 5  
 \* Material will be IAW SPCC Spec.  
 † Insulated handles, with coil spring.  
 ‡ Pointed nose.

Short nose, plain

Lg./In.  
 00-596-7164<sub>NP</sub> 6  
 01-314-1814 6-1/8  
 01-089-1240\* 8  
 \* Hand form Red Plastic dipped handles.

Pliers made from nonferrous alloy having a low sparking hazard and a low magnetic permeability. For use in the presence of flammable gasses, dusts, and explosives.

Short nose

Lg./In.  
 00-595-9490<sub>NP</sub> 7

Short nose, compound lever action. Flush cutting edge angled at 29 degrees. Plastic coated handles with coil spring. 7/16 inch jaw length, 1/4 inch jaw thickness, 7/16 inch jaw width at joint, and 1/32 inch jaw thickness at tips.

O/A  
 Lg./In.  
 00-764-4801 4

GSA economical replacement tool. Cushion throat cutter, bowed Vinyl grip handles.

	Jaw Lg	O/A Lg
01-367-4647	13/32	4-1/4
01-367-4650	3/4	6-1/8
01-367-3878	1-3/16	7-3/4

## PUNCH, CUTTING, REVOLVING HEAD

6-hole leather punch. Steel frame, spring handle. Nonremovable hole cutters. Cuts hole diameters: 5/64, 3/32, 7/64, 1/8, 5/32, and 3/16.



00-596-9604<sub>NP</sub>

## PUNCH, CUTTING, DOUBLE BOW

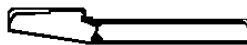
Circular cutting (drive) punches. High-grade Carbon or Alloy Steel. Intended to be used to punch holes in leather, Cork, Rubber, and similar materials.



	Dia./In.	No.
00-541-7697 <sub>NP</sub>	3/8	3
00-180-0922 <sub>NP</sub>	7/16	4
00-180-0923 <sub>NP</sub>	1/2	5
00-180-0924 <sub>NP</sub>	5/8	7
00-293-0420 <sub>NP</sub>	11/16	8
00-180-0925 <sub>NP</sub>	3/4	9
00-293-0417 <sub>NP</sub>	13/16	10
00-180-0926 <sub>NP</sub>	7/8	11
00-293-0418 <sub>NP</sub>	15/16	12
00-180-0927 <sub>NP</sub>	1	13
00-541-7698 <sub>NP</sub>	1-1/8	15
00-540-5788 <sub>NP</sub>	1-3/8	17
00-540-5787 <sub>NP</sub>	1-1/2	18
00-540-5786 <sub>NP</sub>	1-5/8	19
00-180-0933 <sub>NP</sub>	1-3/4	20
00-180-0934 <sub>NP</sub>	1-7/8	21
00-180-0935 <sub>NP</sub>	2	22
00-540-1860 <sub>NP</sub>	2-1/8	23
00-180-0937 <sub>NP</sub>	2-1/2	26

## PUNCH, CUTTING, SINGLE BOW

Belt or saddler's punch



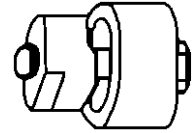
	Dia./In.	No.
00-180-0938 <sub>NP</sub>	3/32	—
00-180-0939 <sub>NP</sub>	1/8	5
00-293-0350 <sub>NP</sub>	11/64	8
00-180-0941 <sub>NP</sub>	3/16	9
00-180-0942 <sub>NP</sub>	7/32	11
00-180-0943 <sub>NP</sub>	1/4	13
00-180-0944 <sub>NP</sub>	9/32	15
00-180-0945 <sub>NP</sub>	5/16	16

## PUNCH AND DIE, KNOCKOUT

Accurate-cutting punch and die sets. High quality Alloy Steel. Punches holes in sheet metal, Plastic, hard Rubber, and leather. Tightening drive screw operates punch.

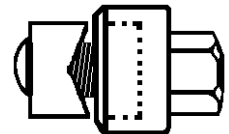
Light-duty (chassis) models cut mild Steel up to 24-gage. Heavy-duty (conduit) model cuts mild Steel up to 10-gage.

Round-hole, Light-duty.



	Dia./In.
00-288-8737 <sub>NP</sub>	1/2
00-293-0109 <sub>NP</sub>	5/8
00-684-3920 <sub>NP</sub>	11/16
00-243-1645 <sub>NP</sub>	3/4
00-293-0107 <sub>NP</sub>	7/8
00-293-0108 <sub>NP</sub>	1
00-180-0915 <sub>NP</sub>	1-1/16
00-293-0105 <sub>NP</sub>	1-1/8
00-293-0106 <sub>NP</sub>	1-5/32
00-233-3657 <sub>NP</sub>	1-3/16
00-293-0103 <sub>NP</sub>	1-1/4
00-180-0920 <sub>NP</sub>	1-3/8
00-180-0921 <sub>NP</sub>	2-1/4

Round-hole, Heavy-duty.



	Dia./In.	Conduit Size
00-595-9498 <sub>NP</sub>	1-3/32	3/4
00-595-9499 <sub>NP</sub>	1-11/32	1
00-243-1648 <sub>NP</sub>	1-11/16	1-1/4
00-595-9497 <sub>NP</sub>	1-15/16	1-1/2
00-180-0949 <sub>NP</sub>	2-3/8	2

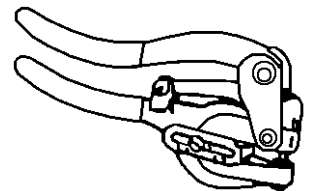
## PUNCH AND DIE SET, KNOCKOUT

4-punch heavy-duty (conduit) set in roll kit. Cuts round hole sizes: 7/8, 1-3/32, 1-11/32, and 1-11/16 inches in diameter.

	Conduit Size
00-555-8497	1/2 to 1-1/4 in.

## PUNCH AND DIE SET, METAL CUTTING, HAND

Circular holes, light duty, 16 gage sheet Steel maximum. Furnished with 1/16, 3/32, 1/8, 5/32, 3/16, 7/32, and 1/4 inch diameter punches and dies.



00-473-5931

# CLASS 5110

## PUNCH SET, CUTTING, DOUBLE BOW

With seven hollow punches for cutting: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, and 5/8 inch diameter holes, in other than metal gasket material. Detachable mandrel, hinged Plastic, or metal container.

00-449-7313

## RASP, HAND

Wood rasps. Heat treated, hardened, and tempered rasps with tang.

Flat type, bastard cut.



	Lg./In.	W./In.	Thk./In.
00-233-9721 <sub>NP</sub>	10	1	11/32
00-233-9718 <sub>NP</sub>	12	1-3/16	13/32

Half-round, bastard cut.



	Lg./In.	W./In.	Thk./In.
00-233-9710 <sub>NP</sub>	8	13/16	5/16
00-233-9711 <sub>NP</sub>	10	1	3/8
00-233-9712 <sub>NP</sub>	12	1-3/16	7/16
*00-233-9722 <sub>NP</sub>	12	1-3/16	7/16
00-233-9713 <sub>NP</sub>	14	1-3/8	1/2

\* Smooth cut, deviation from spec.

Half-round cabinet type. Second cut.



	Lg./In.	W./In.	Thk./In.
00-233-9716	8	29/32	1/4
00-233-9717	10	1-1/8	9/32
00-233-9714	12	1-5/16	11/32

Surface forming tools. Fast-cutting, easy to use tools for cutting and forming wood, plastics, plaster, soft metal, and metals up to the hardness of mild steel. Replaceable blades feature: super-sharp, preset, edge-cutting teeth that won't clog. STANLEY TOOL, or equal No.'s listed below.

Combination plane and rasp. Plastic rear handle. With regular-cut flat blade. 1-1/8 inches wide, 10 inches overall length.

No.	
00-941-2707	285

Palm-size rasp. Fits in apron or overall pocket. Fine-cut blade 1-3/8 inches wide, 5-11/16 inches long.

No.	
00-083-0042	399

## REAMER, CYLINDER RIDGE

Adjustable reamer for cylinders 2.6 to 5 inches inside diameter. Furnished with six extra cutting blades. Without bracket.



00-228-7009

## REAMER, HAND

Straight, High speed Steel. Straight, round shank with squared end.



	Dia./In.	Lg./In.
00-186-6687 <sub>NP</sub>	1/8	3
00-268-1253 <sub>NP</sub>	5/32	3-1/4
00-260-1665 <sub>NP</sub>	3/16	3-1/2
00-260-1664 <sub>NP</sub>	1/4	4
00-186-6697 <sub>NP</sub>	9/32	4-1/4
00-255-6600 <sub>NP</sub>	5/16	4-1/2
00-260-1668 <sub>NP</sub>	11/32	4-3/4
00-255-6579 <sub>NP</sub>	3/8	5
00-260-1671 <sub>NP</sub>	13/32	5-1/4
00-268-1258 <sub>NP</sub>	7/16	5-1/2
00-255-6541 <sub>NP</sub>	1/2	6
00-260-1645 <sub>NP</sub>	5/8	7
00-255-6557 <sub>NP</sub>	3/4	8-3/8
00-260-1721 <sub>NP</sub>	7/8	9-3/4
00-253-3190 <sub>NP</sub>	1	10-7/8

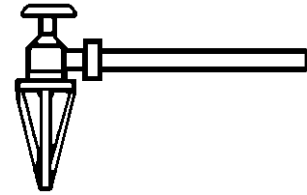
Adjustable inserted blade reamers. High speed Steel, straight flutes. Straight round shank with squared end. Expansion range and size as shown.



	Range	Size
00-529-2014 <sub>NP</sub>	1/4-9/32	8/A
00-541-4962 <sub>NP</sub>	5/16-11/32	6/A
00-260-1702 <sub>NP</sub>	3/8-13/32	4/A
00-541-4961 <sub>NP</sub>	13/32-7/16	3/A
00-720-4782 <sub>NP</sub>	7/16-15/32	2/A
00-260-1705 <sub>NP</sub>	15/32-17/32	A
00-260-1707 <sub>NP</sub>	19/32-21/32	C
00-289-1011 <sub>NP</sub>	23/32-25/32	E
00-260-1717 <sub>NP</sub>	25/32-27/32	F
00-260-1728 <sub>NP</sub>	27/32-15/16	G
00-260-1727 <sub>NP</sub>	15/16-1-1/16	H
00-232-6343 <sub>NP</sub>	1-1/16-1-3/16	I
00-268-1235 <sub>NP</sub>	1-11/32-1-17/32	K

Pipe burring reamers. Carbon Steel. Pipe size capacity shown below.

Ratchet handled style. Complete unit with an inserted tooth or solid cone straight-fluted reamer. Distance from center line of reamer to end of lever is 10 inches (minimum).



Pipe Size/In.  
00-186-4215<sub>NP</sub> 1/8 to 2

Spiral fluted, bit brace shank style. 1/4 inch diameter at point. 2-17/64 inch diameter at large end.



Pipe Size/In.  
00-232-6329 1/4 to 2 in.

Straight fluted taper pin reamers. High speed Steel. Straight round shank with squared end.



	Taper Size	O/A Lg./In.
00-253-3152 <sub>NP</sub>	7/0	1-13/16
00-253-3154 <sub>NP</sub>	6/0	1-15/16
00-253-3156 <sub>NP</sub>	5/0	2-3/16
00-253-3158 <sub>NP</sub>	4/0	2-5/16
00-253-3160 <sub>NP</sub>	3/0	2-5/16
00-243-2003 <sub>NP</sub>	2/0	2-9/16
00-243-2004 <sub>NP</sub>	0	2-15/16
00-243-2005 <sub>NP</sub>	1	2-15/16
00-243-2006 <sub>NP</sub>	2	3-3/16
00-253-3170 <sub>NP</sub>	3	3-11/16
00-253-3172 <sub>NP</sub>	4	4-1/16
00-243-2007 <sub>NP</sub>	5	4-5/16
00-253-3176 <sub>NP</sub>	6	5-7/16
00-253-3178 <sub>NP</sub>	7	6-5/16

Repairman's solid "T" handle reamer. Straight flutes, Carbon Steel. 5-1/2 inches overall length, 1/8 inch diameter at the small end with a pointed tip. Large diameter is 1/2 inches.

00-186-4214<sub>NP</sub>

Left hand spiral-fluted tapered pipe reamers. High speed Steel. Round shanks with squared ends.

	Pipe Size/In.	O/A Lg./In.
00-516-3815 <sub>NP</sub>	1/8	2-1/8
00-268-1309 <sub>NP</sub>	1/4	2-7/16
00-810-8982 <sub>NP</sub>	3/8	2-9/16
00-595-9295 <sub>NP</sub>	1/2	3-1/8
00-268-1310 <sub>NP</sub>	3/4	4
00-268-1311 <sub>NP</sub>	1	3-3/4

Brown and Sharp taper socket (hand). Straight or tapered spiral fluted taper section. High speed Steel. Straight, round shanks with squared ends.

# CLASS 5110



	Taper Size	O/A Lg/In.
00-186-4203 <sub>NP</sub>	1	4-3/4
00-186-4204 <sub>NP</sub>	2	5-1/8
00-186-4205 <sub>NP</sub>	3	5-1/2
00-186-4206 <sub>NP</sub>	4	5-7/8

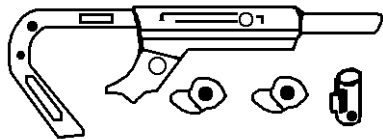
## REAMER SET, HAND

Eleven in set. Round shank with square end. Straight fluted taper pin hand reamers. High speed Steel. One each of number sizes, from 0 thru 10. With case.

00-289-0010

## RECONDITIONING TOOL, PISTON RING GROOVE

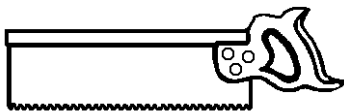
Piston ring groove reconditioning tool. Services 2-1/2 to 6 inch diameter pistons. 5/64, 3/32, 1/8, 5/32, 3/16, and 1/4 inch wide piston ring grooves. Includes: guide, sliding head, land cutter and holder, chamfer cutter and holder, and drill pilot jig.



00-554-7286

## SAW, BACK

Back saw. Fits standard miter box. For crosscutting or ripping. Reinforced Steel back. Length of cutting edge and Points Per Inch (PPI) as shown.



## SAW, BOW

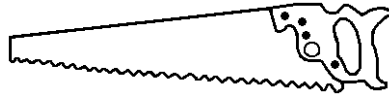
Bow saw. Strong, light tubular Steel frame holds 36 inch blade with wide set teeth. Saws logs up to 6 inches diameter. Cuts on forward and back stroke.

00-340-3276<sub>NP</sub>

## SAW, HAND, CROSSCUT

Full taper ground crosscut saws. Beveled filed teeth are spring set. Hardwood handles secured to blade by screws. Length of cutting edge and points per inch (PPI) as shown.

Straight back. First quality saw Steel blade.



	Lg/In.	TPI
00-203-8310 <sub>NP</sub>	20	10
00-142-4999 <sub>NP</sub>	24	10
00-293-3435 <sub>NP</sub>	26	8
00-307-0468*	26	10

\* Nickel-Alloy blade.

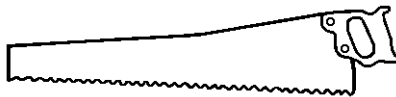
## SAW, HAND, FINGER GRIP

Zinc Plated. Two grip assemblies. Two blade mounting thumb screws, 3/8 inches long. One round saw blade, 0.050 inch diameter by 20 inches long. Thirteen turns per inch. Survival type MB-2.

00-570-6896<sub>NP</sub>

## SAW, HAND, RIP

26 inch cutting edge, 6 points per inch. Teeth filed straight across. Hardwood handle.



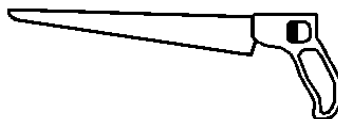
Skew back

00-142-5015<sub>NP</sub>

## SAW, KEYHOLE

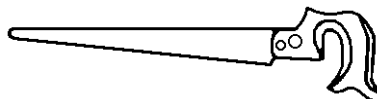
Keyhole saw for starting cuts from drilled holes. Select Steel tapered blade, 3/4 inch wide handle.

Adjustable handle. Nail-saw blade. Handle can be rotated 360 degrees and can be locked in 8 positions at 45 degree intervals. Plastic or cast metal handle. Also accepts keyhole blade and compass blade. 11 inch long blade, 11 points per inch.



00-892-5847

Wood cutting. Detachable hardwood handle holds blade with 10 inch cutting edge, 10 points per inch. Spring set teeth crosscuts and rips.

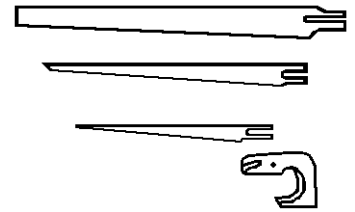


00-142-5010

## SAWS, NESTED

3-blade set of nested saws. Includes: detachable hardwood handle, 1-keyhole saw, 10 inches long, 10 points per inch; 1-compass saw, 14

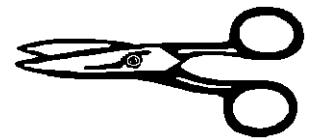
inches long, 9 points per inch; and 1-nail cutting saw, 16 to 18 inches long, 16 points per inch.



00-293-0090

## SCISSORS, ELECTRICIANS'

5 inch long electrician's scissors. Pointed blades with file and scraping edges on backs of blades. Cuts wire, light sheet metal, and insulation. Nickel-Plated forged Steel.



00-255-0420<sub>NP</sub>

## SCISSORS, LADIES'

6 inch long heavy-duty sewing or trimming scissors. Nickel-Plated forged Steel.

00-754-1499<sub>NP</sub>

## SCISSORS, POCKET

4 inch long, hot drop-forged solid Steel blades, with rounded ends. 1-1/2 inch minimum length of cut. Blades and handles are fully Nickel Plated.

00-290-3766<sub>NP</sub>

## SCISSORS, SPRING ACTION

Multipurpose. Flat bottom style. 3 inch cut length. Oversized cushion grip handles. Spring-opening. Slide lock to keep blades closed for safety. Adjustable screw for modifying blade tension. 10-3/16 inches long. For cutting multiple layers of fabric, string, paper, construction paper and cardboard.

01-368-3507

## SCRAPER, BEARING

Forged Steel bearing scrapers. Used on flat or curved surfaces. Hardwood handles on all except double-ended scraper.

Triangle (three-square). 4 inch blade length, 1/2 inch across flats.



00-596-9369<sub>NP</sub>

# CLASS 5110

Half-round (spoon). Blade length and width at widest point, listed in inches.



	Blade Lg./In.	Blade W./In.
00-596-9370 <sub>NP</sub>	3-1/2	5/8
00-596-9371 <sub>NP</sub>	4-1/2	13/16

Double-end, flat, Steel. 12 inches long overall. One end with square scraping edge, 7/8 inches wide; other end with convex scraping edge, 1-1/8 inches wide.



00-237-8702<sub>NP</sub>

## SCRAPER SET, BEARING

Consists of 3 scrapers, half-round (spoon), 1 each: 5110-00-240-7661, 5110-00-596-9370, and 5110-00-596-9371. Respective blade length and width at widest point 3 by 5/8, 3-1/2 by 5/8, and 4-1/2 by 13/16.



00-596-0808<sub>NP</sub>

## SCRAPER, CARBON, FLEXIBLE

Flexible Carbon scraper. 9 inch long tool removes Carbon in low, hard-to-reach areas, and high spots. Sliding band regulated flexibility of 10 round Steel blades.



00-251-6481<sub>NP</sub>

## SCRAPER, GLASS, RAZOR BLADE

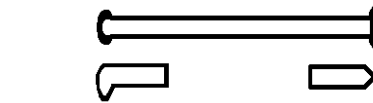
Razor-blade glass scraper. 4 inch handle holds standard single-edge razor blade. Blade retracts when not in use. 5-blades furnished, 1-5/8 inches wide, 1/4 inches thick.

00-997-4237<sub>NP</sub>

## SCRAPER, SHIP

Paint-and-scale removing ship scrapers. Carbon Steel scraping edges.

All metal scraper, angle-bent end. 1-3/4 inches wide scraping edges. No handle.



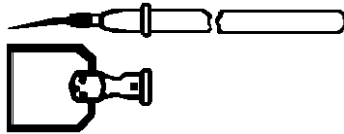
00-240-3094<sub>NP</sub> Lg./In. 15

Hull and deck scraper. 2 inches wide scraping edges. 30-1/2 inch long wood handle.



00-224-9928<sub>NP</sub> Lg./In. 36

Ship bottom scraper. 6 inches wide scraping edge. 45 inch long wood handle.



00-224-9926<sub>NP</sub> Lg./In. 53-3/4

All metal, angle-bent end scraper. Nonsparking and nonmagnetic. Can be used where flammable gases, dust, and explosives present a hazard. 2 inch wide scraping edges.

00-277-2690<sub>NP</sub> Lg./In. 12

## SCRAPER, WOOD

Floor type scraper. 2 inch wide Carbide tipped replaceable blade. Any acceptable length.

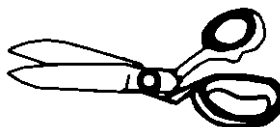


00-935-4660

## SHEARS, BENT TRIMMERS

Professional cloth cutters shears. Chrome or Nickel-Plated forged Steel blades (one pointed and one beveled or two pointed blades). Heavy duty, cuts canvas, leather, upholstery, and similar materials on flat surface.

Solid Steel blades



	Lg./In.
00-162-2203	9
00-596-9703	10
00-203-9642	12

## SHEARS, METAL CUTTING, HAND

Trimmer's hand snips. Steel blades cut light-gage metals. Handle stops prevent closing on fingers. Right-hand operation, except 5110-00-273-0127.

Straight cutting. Medium duty.



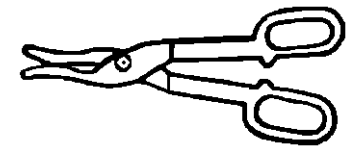
00-289-8659 Lg./In. 8 Cut./In. 1-3/4

Straight cutting. Heavy duty.



00-221-1083 Lg./In. 16 Cut./In. 2-1/4

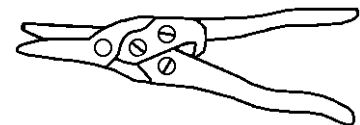
Duckbill Combination cut. Cuts curves and irregular shapes. Use for intricate patterns.



00-221-1085 Lg./In. 7 Cut./In. 1-1/2  
00-221-1087 Lg./In. 12-1/2 Cut./In. 2-3/4

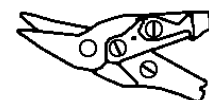
Compound lever hand snips. Compound leverage system distributes cutting strain evenly. Alloy Steel blades, finely serrated cutting edges. Spring action keeps blades open. Handles with locking device.

Straight cutting. Can also cut curves and intricate patterns.



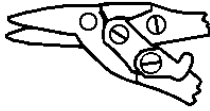
00-273-0128 Lg./In. 10 Cut./In. 1-3/16

Circular cutting, Left hand.



00-273-0126 Lg./In. 10 Cut./In. 1-3/16

Circular cutting, Right hand.



	Lg/In.	Cut/In.
00-273-0127	10	1-3/16

Dental shears for cutting thin Gold plate. Chrome-Plated Carbon Steel. Straight style, sharp-pointed blades. 2-1/2 inch cut.

	Lg/In.	Cut/In.
00-555-9500 <sub>NP</sub>	8	2-1/2

## SHEARS, PINKING

9 inch long heavy-duty pinking shears. Forged Steel blades cut scalloped edges.

00-162-2202

## SHEARS, STRAIGHT TRIMMERS

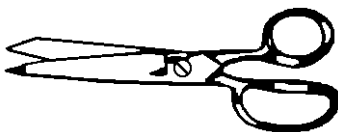
Steel shears for office, household, and shop use. Heavy-duty. Right-hand operated japanned handles with Chrome or Nickel-Plated blades. Overall lengths as shown.

Paper or Stationer's shears. Pointed blades.



	Lg/In.
00-161-6912	9
00-162-2207	12

Household or Industrial shears. One pointed and one beveled blade. Cuts cloth, leather, rubber, and paper.



	Lg/In.
00-293-3444	6
00-293-9199	7
00-223-6371	8
00-161-6909	9

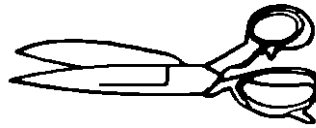
Steel, 1 beveled, 1 sharp pointed, or 2 sharp pointed blades. Plastic handles.

	Lg/In.
01-241-4373	8-1/4

## SHEARS, TAILOR'S

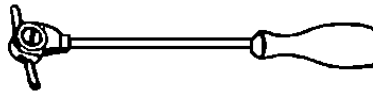
12 inch long Tailor's (Sailmaker's) shears. One pointed and one beveled, or blunted edge blade. Cuts heavy materials such as canvas, leather, upholstery, and similar materials. Japanned handles with Chrome or Nickel-Plated blades.

00-223-6370



## SLOTTER AND SCRAPER, COMMUTATOR, HAND

11 inch long commutator cleaning tool. Adjustable swivel head rotates to any angle, for cleaning out commutator slots and for beveling Copper edges.



00-245-9542

## SPLITTING TOOL, NUT

Steel, heavy duty forged body encircles nuts up to 7/8 inches across flats. The hardened cutting chisel is held in the housing with a friction ball, and can be turned to the best position for splitting action. The pressure screw has a 3/4 inch hex head for wrench application. The anvil is held in the screw with a replaceable friction ring and is designed for removing nuts, rusted or frozen in place. DO NOT USE WITH POWER WRENCHES.

00-803-6339<sub>NP</sub>

## SPOKESHAVE

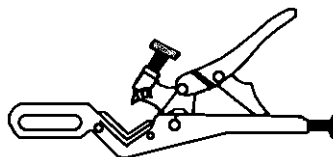
Spokeshave for dressing curved edges. 10 inch long frame with raised handles and cap Iron. Tempered tool Steel straight cutter, 2-1/8 inches wide.



00-237-8573

## STRIPPER, CABLE, HAND

Cable stripper with adjustable toggle handle and cutter. Strips heavy duty armored and unarmored cables from 3/8 to 1-5/8 inches in diameter, and through insulation 1/4 inch thick.

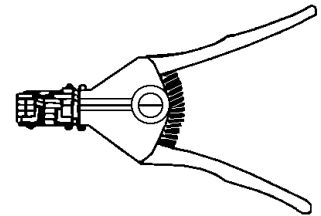


00-238-7696<sub>NP</sub>

## STRIPPER, WIRE, HAND

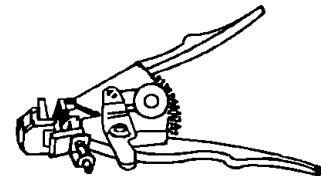
For removing at least 3/4 inch length of insulation from standard solid and stranded wires. With automatic stop return and replaceable cutter blades. Range of AWG and AN wire sizes as noted.

With pivot handles. Use on free stripping aircraft ignition and electrical cable, and general purpose solid and stranded wire. With automatic stop return.



	No.
00-268-4224 <sub>NP</sub>	8 thru 22
01-088-4318*	10 thru 30
00-542-4487 <sub>NP</sub>	14 thru 30
* SPCC Quality Control Item.	

With pivot handles. For Teflon insulation. 7-1/4 inch overall Length. 6 inches between handles when fully released. With stripping length stop and short stop latch.

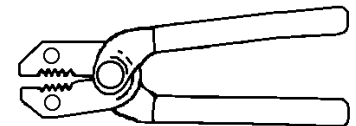


	No.
00-177-7286 <sub>NP</sub>	16 thru 26

With pivot handles. For Teflon insulation. Automatic stop return.

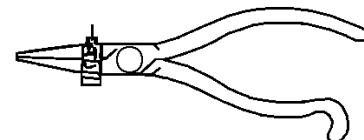
	No.
01-090-5870 <sub>NP</sub>	16 through 26 and Type E-600 volt

Flat jaws and handles. 6-1/4 inch overall length. Solid wire only.



	No.
00-246-0975	10 thru 18

Modified plier style. Yellow handles.



# CLASS 5110

01-019-1772      No.  
26 through 28  
White handles.

00-472-2328      No.  
30 AWG

Spring loaded handles, with adjustable stop for wire size.

00-063-3037      No.  
.5 through 25

## TOOL KIT, MULTI PLIER

This kit contains a pocket knife, 5110-01-346-5339, with 6 screwdriver bits and a

coupler that fits over cross tip screwdriver blade. Includes 3 cross tip bits and 3 flat tip bits. Comes in Black Synthetic, heavy duty sheath with Velcro closure and belt loop. Special Feature: Nip item.

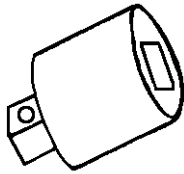
01-385-7354

## CLASS 5120 HAND TOOLS, NONEDGED, NONPOWERED

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### ADAPTER, SOCKET WRENCH

Socket wrench drive adapters. Converts female square drive to male square drive. Chrome or Nickel Plated Steel. Square male drive tang, square female socket openings.



	Female	Male	Lg
00-224-9219 <sub>NP</sub>	1/4	3/8	13/16
00-227-8095 <sub>NP</sub>	1/4	3/8	7/8
00-240-8703 <sub>NP</sub>	3/8	1/2	1-19/64
01-335-0696 <sub>NP</sub>	3/8	1/2	1-5/16
00-240-8702 <sub>NP</sub>	3/8	1/2	1-3/8
00-144-5207 <sub>NP</sub>	1/2	3/4	1-23/32
00-227-8088 <sub>NP</sub>	1/2	3/4	1-29/32
00-227-8104 <sub>NP</sub>	3/4	1	2-5/16
00-227-8103 <sub>NP</sub>	3/4	1	2-9/16

### ADAPTER, TORQUE WRENCH

Steel overall with Chromium surface. Open end style. 0.312 inches nominal single end surface. Oval single end internal wrenching surface shape. END ITEM: Utica size A Torque Wrench Handles.

00-006-9964

Chrome Steel. .772 inch outside diameter by .515 inch thick drive end. .875 inch outside diameter by .750 inch head thickness, on drive end. Hex shape .509 inch wrenching size, (internal). Square shape .507 inch drive size (internal). G M Diesel 53, 71, V-71, and 110.

00-019-5232<sub>NP</sub> 3.260 in. lg

Chrome Steel. Overall length, 2 inches. Spline wrenching shape. Square drive.

3/8 Square drive

	Wrenching Size	Spline
01-074-6573 <sub>NP</sub>	5/16	10
00-867-5515 <sub>NP</sub>	3/8	12
00-867-5517 <sub>NP</sub>	1/2	16

### ALIGNMENT TOOL, ELECTRONIC EQUIPMENT

Combination screwdriver and wrench type. Plastic bodies or handles. Two working ends,

dimensions and type as noted.

Metallic screwdriver tip. .127 inches long by .055 inches wide. Slot type wrench.

Lg /In.  
 00-720-1908 4-1/8

Metallic screwdriver tip. .050 inch size Allen wrench.

Lg /In.  
 00-724-3767 5-1/8

Metallic screwdriver tip. Opposite end designed for dressing wires, finding loose connections, and shorts.

Lg /In.  
 00-288-7789 6-5/16

Nonmetallic screwdriver tip. Allen wrench. Size .100 inch.

Lg /In.  
 00-767-7582 5-7/16

Nonmetallic. Flat screwdriver tip and Allen wrench.

Lg /In.  
 00-288-7786 5-1/4

Screwdriver type with one working end.

Nonmetallic tip. Plastic body. .025 inch thick, 1/8 inch diameter.

Lg /In.  
 00-288-7785 7

Nonmetallic tip designed to fit K-TRAN Transformer slot. 2 working ends.

Lg /In.  
 00-288-7787 7

Screwdriver type with two working ends. Nonconductive Plastic body.

Nonmetallic tips, both ends projecting. All Plastic alignment screwdrivers. 7 inches long.

Size  
 00-060-6423 1/4 both ends  
 00-508-9755 1/4 both ends

Metallic screwdriver tip and recessed screwdriver tip with a Pocket clip. Polyamide Nylon body.

Lg /In.  
 01-246-6113 4-15/16

Metallic screwdriver tip and recessed screwdriver tip.

Lg /In.  
 00-227-7291 5

Metallic screwdriver tip both ends.

Lg /In.  
 00-288-7781 6

Orange wood or Plastic tool, with round tips. 2 inches long tapered and beveled tips each end. 1/8 inches wide by 1/16 inches thick by 6-7/8 long, 7-3/2 inch body diameter. Army Electronic Command Drawing SCB98203.

00-293-2081

### ALIGNMENT TOOL, PLUNGER

Aluminum. 3-1/2 inches overall length, 1-3/4 inch inside diameter. 4-1/2 inch flange with four-3/16 inch diameter holes equally spaced, 3 inch outside diameter. 2-1/2 inch outside diameter, 1/2 inch long, guide.

01-010-4483

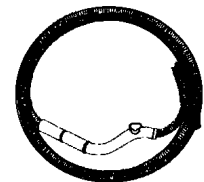
### ANVIL, JEWELER'S

Jeweler's anvil with five milled slots, nominal widths: .018, .024, .028, .034, .041. Sixteen graduated holes ranging from .047 inches to .250 inches. Non- Spec Item.

00-618-4913

### AUGER, PIPE AND SEWER, HAND

Augers for opening clogged pipes and sewers. Single helical coil or flat spring.



Flexible coil spring auger. Bulbous cleaning head. Reversible offset sliding handle. Outside diameter and length of coil spring as noted.

# CLASS 5120

	OD/In.	Lg/Ft
00-273-0083 <sub>NP</sub>	1/4	25
00-273-0084 <sub>NP</sub>	3/8	25
00-273-0085 <sub>NP</sub>	1/2	50

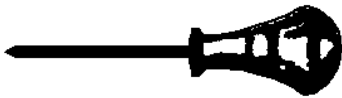
## AUGER, WATER CLOSET, HAND

Auger for opening closet bowls. Right hand wound oil-tempered coil spring with hook type spring head. Fastens to eyelet when not in use. Seamless Brass tube with return bend to catch and hold water from spilling when removing spring from bowl. Handle revolves freely on crankshaft. 1/2 inch coil diameter, overall length 3 feet.

00-240-7561

## AWL, SCRATCH

Scratch awl. 3-1/2 inches long Carbon Steel blade. 3 inches hardwood handle with metal ferrule.



00-221-1542<sub>NP</sub>

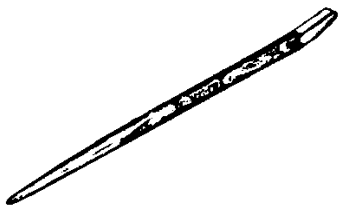
## BAR, COMBINATION PRY AND SCRAPER

Multipurpose pry and scraper bar/rocker head. Rugged, heavy-duty tool. Pries, pulls, and cuts nails; scrapes, lifts, and pounds nails. Each tapered blade has sharp edges and a V-type nail notch. Tempered Steel. Stock size and overall length shown.

00-965-0879<sub>NP</sub> 2 x 15

## BAR, PINCH

Off set pinch bars. Round tapered straight end for use as an aligning tool, other end offset for prying. Forged Steel. End sizes as shown.



13-1/2 inches long.

	Dia/In.	W/In.
00-240-6051 <sub>NP</sub>	3/16	11/16

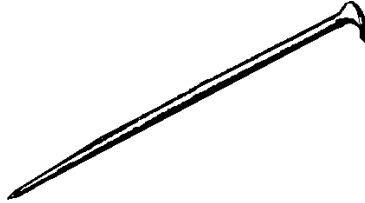
26 inches long.

	Dia/In.	W/In.
00-224-1372 <sub>NP</sub>	5/16	1

## BAR, PRY

Pry bar with rolling head. Other end round

tapered and pointed. For use as an aligning tool and for loosening cylinder heads, gears, and bolts. Forged Steel, 1/2 to 9/16 inches WAF and 15 to 16 inches long.



00-224-1389<sub>NP</sub>

## BAR, RESCUE TOOL

Combination crowbar, pick, and sledge hammer. 30 inches long, weight 9 pounds.

00-009-5044<sub>NP</sub>

## BAR, SOCKET WRENCH HANDLE

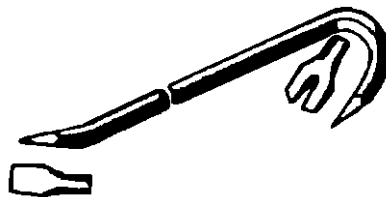
Steel Overall. Straight, solid style. Overall length, 30.000 inches nominal. Outside diameter, 0.750 inches nominal.

00-243-2419

## BAR, WRECKING

Wrecking bars. For demolition work, razing structures, and opening boxes and crates. Claw for pulling nails, offset pinch-point. Forged Steel.

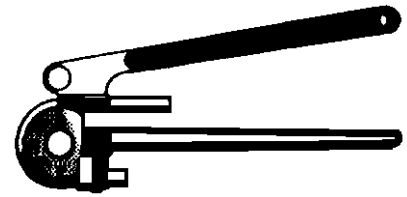
Goose neck claw and pinch point.



	Size/In.	Lg/In.
00-223-7218 <sub>NP</sub>	1/2	12
00-293-2384 <sub>NP</sub>	5/8	18
00-224-1393 <sub>NP</sub>	3/4	24
00-293-0665 <sub>NP</sub>	3/4	30
00-242-0762 <sub>NP</sub>	3/4	36

## BENDER, TUBE, HAND

Single size, lever-actuated tube benders. Makes accurate bends up to 180 degrees. Use on any soft metal thin wall tubing: copper, aluminum, steel. How-to-use instructions included. Outside diameters of tubing for which designed, shown below.



	OD/In.
00-240-0152 <sub>NP</sub>	1/4
00-240-0153 <sub>NP</sub>	5/16
00-240-0154 <sub>NP</sub>	3/8
00-240-0155 <sub>NP</sub>	1/2
00-240-0156 <sub>NP</sub>	5/8

## BENDER SET, TUBE, HAND

Six piece set of external coil-spring tubing benders. Outside diameter and NSN'S noted. Set includes: 1/4 inch, 00-234-8739; 5/16 inch, 00-234-8740; 3/8 inch, 00-234-8741; 7/16 inch, ; 1/2 inch, 00-234-8743; 5/8 inch, 00-234-8744.

00-293-0019<sub>NP</sub>

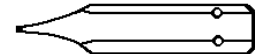
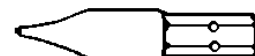
## BIT, SCREWDRIVER

Phillips Cross Tip. Shank width wrench flats 1/4 inch. Bit overall length, 1.000 inches.



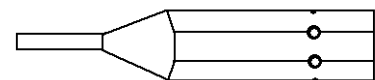
Tip Size  
00-595-8197<sub>NP</sub> 2

Flat tip



	Tip W/In.	Shank WAF/In.	O/A Lg/In.
00-293-2057 <sub>NP</sub>	3/16	1/4	1-1/2

Male Hexagonal Tip. Shank width across wrench flats, 1/4 inch.



	Tip Size/In.	O/A Lg/In.
00-640-6725 <sub>NP</sub>	3/32	1
00-640-6731 <sub>NP</sub>	3/16	1-5/16

Male Hexagonal Tip. Male straight round with wing drive. Bit length 5 inches.

	WAF/In.
00-156-0969 <sub>NP</sub>	3/64
00-156-0981 <sub>NP</sub>	9/64



Torque Set Cross Tip. Shank width across wrench flats 1/4 inch. Bit overall length, 1.000 inch.



	Tip Size
00-888-5826 <sub>NP</sub>	8
00-888-5831 <sub>NP</sub>	10
00-226-5606 <sub>NP</sub>	1/4

Male Hexagonal Tip Type.

	W/In.	Lg/In.
00-969-0071 <sub>NP</sub>	5/32	2-1/16
01-012-5020	1/8	6

## BIT, WIRE WRAPPING, HAND

Steel. Overall length 3.112 inch. Bit face, mod wrap, wire gage size 24. Terminal hole diameter .074 inch. Depth 1.125 inches.

00-051-3858

## BLOWER, WATCHMAKER'S

Bulb type. Squeeze expels air. For removing dirt or foreign matter from small instruments.

00-254-4612

## BRUSH, WIRE, BATTERY

Cleans and removes corrosion from battery posts and clamps. Clamp cleaner telescopes into post cleaner portion. Steel spring cutters with knurled metal gripping surfaces.

00-926-5175

## BURNISHER, CONTACT, HAND

For cleaning and burnishing contact points of relays.

4-jaw chuck burnisher with 12 sand blasted blades. Phenolic body stores: 6-Flat Steel blades, 3/16 wide by 1-1/2 long by .035 inches thick, 6-round (music wire) blades, .024 diameter by 1-1/4 long, with .020 diameter ball-tips. Hard Rubber cap has metal pocket clip. Overall length 4 inches.

00-255-4458

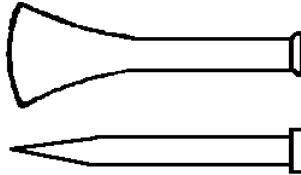
## CARTRIDGE ASS'Y DISPOSABLE

Polyethylene, 12 ounce capacity. Overall length 12 inches. Outside diameter .660. 1/4 inch NPT internally threaded on nozzle end. Opposite end .812 diameter flange.

00-670-3293

## CAULKING IRON, WOOD

Carbon Steel ship-caulking irons. Working end width and overall length as noted.

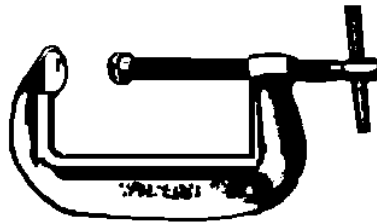


Straight without crease.

	W/In.	Lg/In.
00-222-3241 <sub>NP</sub>	2	5-1/8

## CLAMP, C

Adjustable screw "C" clamps. Nominal size and full opening and throat depth in inches as noted.



Very light service. Steel frame.

	Jaw Size/In.	Throat Depth/In.	Test Load/Lb
Reg Throat			
00-596-4053 <sub>NP</sub>	1	3-1/2	200
00-203-6439 <sub>NP</sub>	2-1/2	2-1/2	900

Light service. Forged Frame.

	Jaw Size/In.	Throat Depth/In.	Test Load/Lb
Reg Throat			
00-180-0905 <sub>NP</sub>	2	1-3/4	2700
00-180-0907 <sub>NP</sub>	3	1-7/8	3000
00-180-0908 <sub>NP</sub>	4	2-1/4	3700
00-180-0909 <sub>NP</sub>	6	2-3/4	4500
00-203-6436 <sub>NP</sub>	8	3-1/4	5200

Medium Service. Forged Frame.

	Jaw Size/In.	Throat Depth/In.	Test Load/Lb
00-222-1612 <sub>NP</sub>	4	2-1/4	10,000
00-203-6431 <sub>NP</sub>	6	2-1/4	11,500
00-840-3358 <sub>NP</sub>	8	2-1/2	12,500

Heavy Service. Forged Frame.

	Jaw Size/In.	Throat Depth/In.	Test Load/Lb
00-249-7492 <sub>NP</sub>	3	2-1/4	16,250
00-180-0897 <sub>NP</sub>	6	3-1/8	27,500
00-249-7494 <sub>NP</sub>	8	3-1/2	31,250

## CLAMP, PLIER

Locking plier-clamps. Finger tip release unlocks adjustable forged Steel jaws. For use in assembly and repair work. Nominal length and jaw width in inches as noted.

"C" Clamp Radius or rounded clamping surfaces with smooth or serrated gripping surface. 0 to 3-3/8 inches clamping cap.

	Lg/In.	Jaw W/In.
00-731-2862 <sub>NP</sub>	11	7/16

Narrow-jawed clamp. Holds material without marring surface. Nominal length, and jaw width as noted.



	Lg/In.	Jaw W/In.
00-287-2512 <sub>NP</sub>	7	3/8

Sheet metal clamp. Self-adjusting, with portable vise. Enlarged clamping surfaces for gripping strips, sheets, etc. 1-3/4 jaw depth.



	Lg/In.	Jaw W/In.
00-494-1889 <sub>NP</sub>	8	3-1/16

Welding clamp. Upset jaws with open area in center to permit welding, soldering, riveting, etc. 0 to 1-5/8 inches clamping cap.

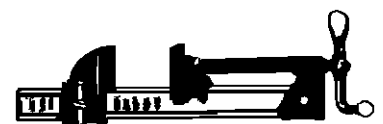


	Lg/In.	Jaw W/In.
00-494-1895 <sub>NP</sub>	9	2-5/8

## CLAMP, SCREW, QUICK ADJUSTING

Clamp screws for holding work in a fixed position. Nominal jaw opening as noted.

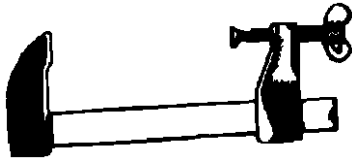
Fixed head with adjustable double jaw.



	Lg/In.
00-180-2936 <sub>NP</sub>	36

# CLASS 5120

Sliding head with swivel button.

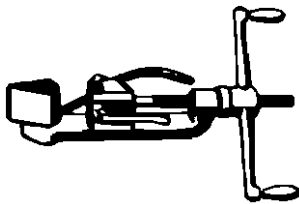


Lg/In.  
12

00-222-1403<sub>NP</sub>

## CLAMPING TOOL, STRAP BAND, HOSE

Cutting and tensioning tool for Steel strapping. Handles 3/8 through 3/4 inches wide and .025 inches through. 0.030 inches thick metal strapping at tensions up to 2700 pounds when attaching pliable tubing to rigid tubing. Also used in splicing electric welding cable, tying conduit or cable to pipelines or girders, and making cable line taps.



00-278-9925

## COLLAR, HOLDING FIXTURE

Steel. 1.750 inch diameter. 0.660 inches long.

00-009-2857

## CONTACT POSITIONER TERMINAL CRIMPING TOOL

00-017-3921<sub>NP</sub>

Hand type.

00-016-6554

**End Item: 512000-165-3912** crimping tool.

Hand type.

00-016-7654

Hand type.

00-016-7657

**Positioner only; basic tool, 512000-165-3910** not included.

Hand type.

00-017-3640

Hand type.

00-017-3809

**Positioner only; basic tool, 512000-165-3910** not included.

Hand type.

00-017-3827

**Positioner only; basic tool, 512000-165-3910** not included.

Hand type. FOR USE WITH HAND-OPERATED CRIMPING TOOL

00-017-3927

**Positioner only, basic tool, 512000-165-3910** not included.

Hand type.

00-017-3932

**Positioner only, basic tool, 512000-165-3910** not included.

Hand type.

00-017-3934

**Positioner only, basic tool, 512000-165-3910** not included.

Hand type.

00-017-3935

## CRIMPING TOOL, TERMINAL HAND

Manual compression terminal crimping tools. AWG wire size range accommodated as noted.

For attaching Copper insulated terminals to electric cable.

AWG Size Accom

00-165-3910	28-21
00-165-3912	27-14
00-132-6913	A/A
00-596-9313*	27-12
00-293-2319†	23-12

\* With die.

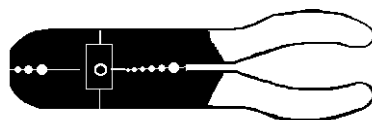
† Maximum compression force, 130 PSI.

Non-Spec types

AWG Size Accom

00-008-0705	25-14
01-120-8721	27-14

For crimping insulated solderless terminals and connectors. Cutting jaw and wire stripper. Cuts sizes 4 to 10 screws.



AWG Size Accom

00-278-2423 22-10

## CROW BAR

High Carbon Steel crowbars. Long pry bars. Stock size and maximum length as noted.

Pinch Point

Dia/In. Lg/In.

00-224-1390<sub>NP</sub> 1-1/4 61

## CROWFOOT ATTACHMENT SOCKET WRENCH

BOX Style

Cadmium overall. 3.65 inches long by 1.880 inches wide. Drive end shape: Square single end internal.

Wrench Size/In.

00-008-55911 3/4

Nonratcheting crowfoot wrenches. Square female drive end. Wrench size (WAF) as noted.

12 Point box, open wall.



1/4 inch drive

Wrench Size/In.

00-888-8000 <sub>NP</sub>	5/16
00-541-4074 <sub>NP</sub>	9/16

3/8 inch drive

Wrench Size/In.

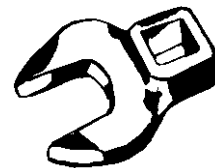
00-189-7896 <sub>NP</sub>	11/16
00-189-7895 <sub>NP</sub>	13/16
00-541-4075 <sub>NP</sub>	15/16
00-229-2772 <sub>NP</sub>	1
00-181-6764 <sub>NP</sub>	1-1/16

1/2 inch drive

Wrench Size/In.

00-229-2773 <sub>NP</sub>	1-1/8
00-181-6755 <sub>NP</sub>	1-1/2

Open-end style with two 3/8 inch square drive openings.



Wrench Size/In.

00-184-8383<sub>NP</sub> 7/16

**Wrench Size/In.**

00-184-8384 <sub>NP</sub>	1/2
00-184-8397 <sub>NP</sub>	9/16
00-184-8398 <sub>NP</sub>	5/8
00-236-2261 <sub>NP</sub>	11/16
00-184-8403 <sub>NP</sub>	15/16
00-184-8405 <sub>NP</sub>	1-1/16
00-184-8410 <sub>NP</sub>	1-3/8

Open-end style. With two 1/2 inch square drive openings. Head thickness 1/2 inches. SPCC HX Quality Control Specs. Wrench size and NAVSHIPSYSCOM Drawing 820-4530101 PC number given.

	<b>Size/In.</b>	<b>No.</b>
00-467-5137 <sub>NP</sub>	9/16	PC 2

**DIE, CRIMPING TOOL**

Crimping range: 0.085 inches minimum and 0.015 inches maximum. Use with AMP, INC. Crimping tool.

00-010-5082

**DISASSEMBLY TOOL, BEARING HOUSING**

Steel. 11.00 inches long. and 0.502 inches thick.

00-004-5636

**DISPENSER, SEALANT**

Steel mechanical BR1 manual ratchet type. Vent nozzle dispensing with integral tip. 16 ounce cap.

00-679-5655

Steel mechanical BR2 manual ratchet type. Angular dispensing with removable tip. Threaded internal coupling. Style 1 nozzle, 1/2 inch discharge.

00-293-3208

**DRESSER, ABRASIVE WHEEL, HAND**

Revolving cutter-wheel type dressers. For dressing or truing grinding wheels used in foundries, forge shops, machine shops, shipyards, etc. Size 0 and 1, with 4 cutters.



Size No. 0: 1-1/4 inch cutter diameter. For wheels up to 10 inches diameter and 2 inches wide.

00-223-9952<sub>NP</sub>

Size No 1: 1-1/2 inch cutter diameter. For wheels

10 to 16 inches in diameter, 2 to 3 inches wide.

00-287-4448<sub>NP</sub>

**DRIFT, DRILL**

Plain drift, forged Steel. For driving taper shank tools out of machine spindles, sockets, and sleeves.



Size 1, Fits Morse socket No. 1

00-293-0097<sub>NP</sub>

Size 2, Fits Morse socket No. 2

00-224-8949<sub>NP</sub>

Size 3, Fits Morse socket No. 3

00-224-8950<sub>NP</sub>

**EXPANDER, PISTON SEAL**

Aluminum, 1.500 inch diameter and 2.500 inches long.

00-008-5677

**EXTENSION, SOCKET WRENCH**

Square-drive extension bars. Black Oxide, Chromium Plated, Nickel Plated, or Zinc Plated. Nominal length given in inches.

Flexible, 1/4 inch drive size.



	<b>Lg/In.</b>
00-240-1532 <sub>NP</sub>	6

Solid bars.



1/4 inch drive size.

	<b>Lg/In.</b>
00-227-8105 <sub>NP</sub>	2-3/4
00-243-7325 <sub>NP</sub>	6

3/8 inch drive size.

	<b>Lg/In.</b>
00-243-1689 <sub>NP</sub>	3
00-227-8107 <sub>NP</sub>	6
00-243-1693 <sub>NP</sub>	9
00-243-1691 <sub>NP</sub>	12

1/2 inch drive size.

	<b>Lg/In.</b>
00-243-1697 <sub>NP</sub>	2
00-243-7326 <sub>NP</sub>	5
00-227-8074 <sub>NP</sub>	10
00-242-3137 <sub>NP</sub>	12
00-240-8705 <sub>NP</sub>	20

3/4 inch drive size.

	<b>Lg/In.</b>
00-273-9208 <sub>NP</sub>	3
00-227-8079 <sub>NP</sub>	16

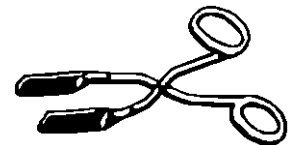
**EXTRACTOR, CIRCUIT**

Steel inner and outer vinyl covered jaws. 2-7/8 inches wide with retaining bar, button head rivet, and spring. Extracts PC boards. Maximum thickness, .094 inches.

00-758-6653

**EXTRACTOR, ELECTRON TUBE**

Spring-Steel extractor tong-type. Rubber cushioned prongs curved to fit various type tubes. Bow handles. May also be used to install tubes. 8 inches long.



	<b>OD/In.</b>
00-293-0808	1.500

**EXTRACTOR, LAMP**

Miniature lamp type extractor. Brass extractor end with nonmetallic handles.

00-772-2466

Synthetic rubber extractor for miniature lamps. One end 11/32 inches. Tapers to 3/16 inch inside diameter. 3/4 inches deep. Other end 11/16 inches. Tapers to 15/32 inches inside diameter. 1-1/16 inches deep, 3 inches long overall.

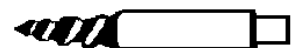
00-288-7679

**EXTRACTOR, SCREW**

Steel screw and pipe extractors. For removing broken screws, studs, bolts, and pipe fittings.

Taper-type screw and pipe extractors. Size number as shown.

Spiral fluted drill style.



Number 1: Screw size 3/16-1/4

# CLASS 5120

00-240-5223<sub>NP</sub>

Number 2: Screw size 1/4-5/16

00-580-2359<sub>NP</sub>

Number 3: Screw size 5/16-7/16

00-240-5221<sub>NP</sub>

Number 4: Screw size 7/16- 9/16

00-240-5222<sub>NP</sub>

Number 5: Screw size 9/16-3/4

00-240-5219<sub>NP</sub> pipe size 1/8-1/4

Number 6: Screw size 3/4-1

00-240-5220<sub>NP</sub> pipe size 3/8

Number 7: Screw size 1 to 1-3/8

00-240-5217<sub>NP</sub> pipe size 1/2

Number 8: Screw size 1-3/8 to 1-3/4

00-242-1118<sub>NP</sub> pipe size 3/4

Number 9: Screw size 1-3/4 to 2-1/8

00-240-5215<sub>NP</sub> pipe size 1

Straight-fluted.

Number 1: Screw size 1/4 to 5/16

00-180-0777<sub>NP</sub>

Number 2: Screw size 3/8

00-180-0778<sub>NP</sub>

Number 3: Screw size 7/16

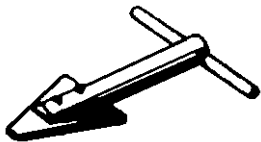
00-180-0779<sub>NP</sub> pipe size 1/8

Number 4: Screw size 1/2 to 9/16

00-180-0780<sub>NP</sub> pipe size 1/4

## EXTRACTOR, SCREW THREAD INSERT

Extractor tool for Unified and American National Coarse and Fine Thread Series coil thread inserts. Steel blade, shaft, and handle.



00-723-6833<sub>NP</sub> No. 10 to 3/8  
00-251-1527<sub>NP</sub> 7/16 to 1 inch

## EXTRACTOR, STUFFING BOX AND PUMP PACKING

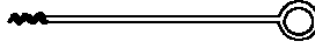
For removing worn or leaky packing from stuffing boxes.

Screw and flexible shaft. T-handle one end.



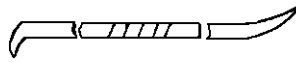
	Bit Dia./In.	O/A Lg./In.
00-223-9556 <sub>NP</sub>	7/32	7
00-223-9557 <sub>NP</sub>	9/32	11
00-223-9558 <sub>NP</sub>	13/32	14-1/2
00-223-9559 <sub>NP</sub>	1/2	18

Screw and rigid shaft. Eye in handle. Steel rod.



	Bit Dia./In.	O/A Lg./In.
00-247-2896 <sub>NP</sub>	5/32	6

Double end, rigid shaft.



	Bit Dia./In.	O/A Lg./In.
00-243-3632 <sub>NP</sub>	5/16	6

## EXTRACTOR, TAP

4-Flute style tap extractors. For standard machine and hand taps. Steel body with sliding sleeve and collar, flute gripping fingers. Nominal tap size as noted.



	Size
00-288-9180 <sub>NP</sub>	1/4
00-288-9182 <sub>NP</sub>	3/8

## EXTRACTOR SET, SCREW

Spiral-fluted drill style extractor sets. For removing broken screws and bolts. Contains one each of the sizes listed.

00-595-8279 <sub>NP</sub>	No's. 1 thru 5
00-357-5853 <sub>NP</sub>	No's. 1 thru 6
00-610-1888 <sub>NP</sub>	No's. 1 thru 9
01-071-2993 <sub>NP</sub>	No's. 1 thru 10

Straight type screw extractors. Straight fluted with sliding turnout nut. For removing broken screws, studs, bolts, and pipe fittings. Furnished with number 1 through 5, sizes: 1/4, 5/16, 3/8, 7/16, and 1/2 in. extractors and drill guides for each.



00-540-1416<sub>NP</sub>

Extractor, straight fluted. Screw sizes: 1/4, 5/16,

3/8, 7/16, 1/2, 5/8, 3/4, and 1 inch. Standard pipe sizes: 1/8, 1/4, 3/8, 1/2, and 3/4 inch. With sliding turnout nuts furnished on 1/4, 5/16, 3/8, 7/16, and 1/2 inch screw extractors and drill guide assemblies. All extractors have a lead taper for easy entry into the hole.

00-305-2275

16 piece 4 flute style tap extractors. For standard machine and hand taps. Steel body with sliding sleeve and collar, flute gripping fingers.

00-082-1811

## FACE, HAMMER, INSERTED

Plastic screw-in hammer face. Removable inserts fit inserted face hammers and holders. Face shape, diameter of insert, hardness, and hardness color are as noted.

Convex

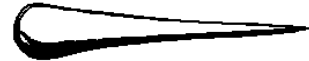
	Dia./In.	Hardness	Color
00-596-1075	1-1/2	Tough	Green
00-293-2997	2	Tough	Green

Flat

	Dia./In.	Hardness	Color
00-555-2074	1	Hard	Black
00-293-3003	1	Med	Red
00-293-2999	1	Tough	Green
00-596-1071	1-1/2	Med	Red
00-540-4273	2	Hard	Black

## FID

Seasoned wood fids, for splicing fiber rope.



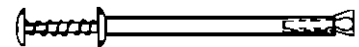
Hand- type concave fit.

	Lg./In.	Butt Dia./In.
00-223-8921 <sub>NP</sub>	12	1-3/4
00-223-8860 <sub>NP</sub>	18	2

## FINGER, MECHANICAL

Mechanical pick-up tool. For retrieving screws, bolts, nuts, etc from tight or inaccessible places.

Rigid



	Reach/In.	Lg./In.
00-288-8716 <sub>NP</sub>	3	8
00-180-2949 <sub>NP</sub>	4	11-3/4

Flexible

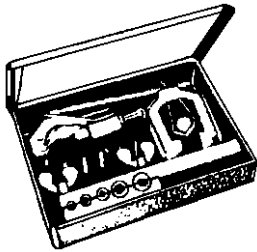


	Reach/In.	Lg/In.	Min OD/In.	Max OD/In.	Range Lg/In.	Size
00-629-6258 <sub>NP</sub>	1	14-7/8				
00-180-2951 <sub>NP</sub>	2	23-3/4				
00-223-8862			4	5	6-9	3
00-223-8927			4-1/4	5-1/8	23-31	1
00-223-8928			5-3/8	6-3/8	23-31	2

## FLARING TOOL, TUBE HAND

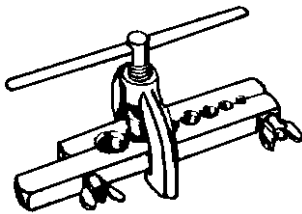
Screw-actuated tube flaring tools. For flaring metal tubing ends.

74 degree roller-cone flare head, attached flaring gage, and deburring reamer. Produces high quality flares on annealed and cold-drawn Corrosion Resisting Steel tubing. Sizes: 3/16, 1/4, 5/16, 3/8, 1/2, and 5/8 inch outside diameter. Metal carrying case holds die-block assembly, compression assembly, and deburring reamer.



00-391-0101<sub>NP</sub>

With double flaring feature and adapter. Accommodates tube diameters: 1/8, 3/16, 1/4, 5/16, 3/8, 1/2, and 3/4. Furnished with swaging adapters for: 1/8, 3/16, 1/4, 3/8, 1/2, and 3/4 tubing. Cadmium Plated tubing is not acceptable.



00-251-2267<sub>NP</sub>

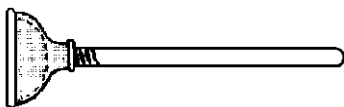
## FLINT TIP, FRICTION IGNITER

Renewal flint for friction igniter 5120-00-618-6902. Metal sleeve type. 6-40 NF threaded female end, 6 per box.

00-965-0603

## FORCE CUP, PLUMBER'S

Plumber's "friend", with Rubber cup and hardwood handle.



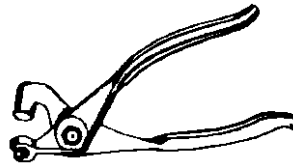
Light duty. Bell-shaped cup, unclogs sinks and drains. Size as noted.

Heavy duty. Ball-shaped cup, unclogs toilet bowls and similar plumbing fixtures.

	Dia/In.	Lg/In.
00-849-1141	5-1/2	23-31

## FORCEPS, SHEET HOLDER

Straight type. Forged Steel, Cadmium Plated, 8 inches long (Use with sheet metal holders).



00-221-1597<sub>NP</sub>

## GUN, SEALANT, HAND

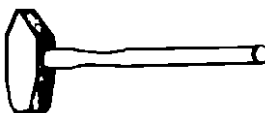
Metal or Plastic cartridge retainer 6 ounce size. Used to apply: sealants, calking materials, polysulfides, polyurethanes, silicones, and epoxies from premixed or filled on the job cartridges.

00-952-3507

## HAMMER, HAND

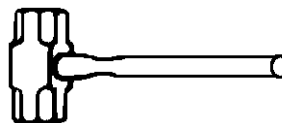
Blacksmith's or Engineer's hammers. Forged Steel head, hickory handle.

Cross peen



	Head Wt/Lb	Lg/In.
00-242-3915 <sub>NP</sub>	3	16

Double-face



	Head Wt/Lb	Lg/In.
00-203-4656 <sub>NP</sub>	2-1/2	15
00-900-6118*	2-1/2	15
00-251-4489 <sub>NP</sub>	8	32
00-243-2957 <sub>NP</sub>	10	32
00-900-6097*	10	32
00-293-0887 <sub>NP</sub>	12	34

	Head Wt/Lb	Lg/In.
00-230-7843 <sub>NP</sub>	20	36
* Fiberglass handle.		

Double face, nonsparking, nonmagnetic.

	Head Wt/Lb	Lg/In.
00-265-7462 <sub>NP</sub>	6	32

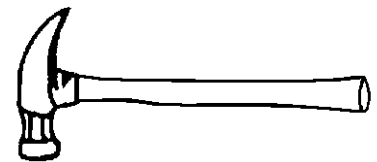
Double-face nonsparking, nonmagnetic hammer with wood handle.

	Head Wt/Lb	Lg/In.
00-288-9707 <sub>NP</sub>	5	32

Carpenter's curved claw nailing hammers. Forged Steel head and fiberglass handle. Bright polished plain bellface.

	Head Wt/Lb	Lg/In.
00-892-6263	7 oz	12 to 14
00-900-6110	13 oz	12 to 14
00-892-5485	1 lb	12 to 14
00-900-6109	1-1/4 lb	12 to 14

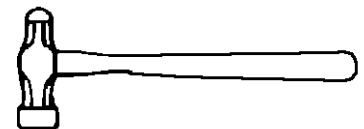
Carpenter's straight claw ripping hammers. Forge Steel head. Bright polished plain bellface with fiberglass handle.



	Head Wt/Lb	Lg/In.
00-900-6113	1	13 to 14
00-892-5744	1-1/4	13 to 14

Machinist's ball-peen hammers. Forged Steel heads. Polished face and peen with fiberglass handles.

Handle



	Head Wt/Lb	Lg/In.
00-250-3911 <sub>NP</sub> *	2 oz	10
00-061-8541	8 oz	12
00-061-8542	12 oz	13
00-061-8543	1 lb	14-1/2
00-061-8544	1-1/4 lb	15
00-061-8545	1-1/2 lb	15
00-061-8546	2 lb	16

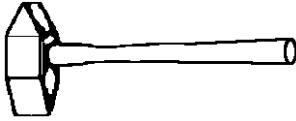
\* Hickory handle.

Nonsparking, nonmagnetic ball-peen hammer. Hard alloy head.

# CLASS 5120

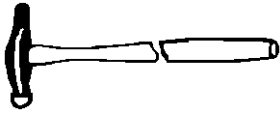
	Head Wt/Lb
00-187-1033 <sub>NP</sub>	1-1/2
00-187-1034 <sub>NP</sub>	2

Scaling hammer (boiler pick). Forged Steel head with cross-tapered chipping edge on one edge. Hickory handle.



	Head Wt/Lb	Lg/In.
00-224-4111 <sub>NP</sub>	1	14

Ship (top) maul, forged Steel head, Hickory handle.



	Head Wt/Lb	Lg/In.
00-255-1476 <sub>NP</sub>	5	32

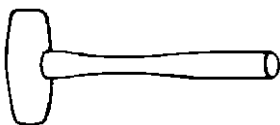
Soft-face regular faces. Nonsparking. SPECIAL FEATURE: Fine lead shot sealed within unitized metal canister. 1/2 inch diameter faces.



	Head Wt/Lb	Lg/In.
01-032-7496	1-1/2	12

Soft head hammers. Prevents marring and damaging of work surfaces.

Solid head type. Square or barrel shaped head. Hickory or Steel handle. Brass head Wood handle.



	Head Wt/Oz	Lg/In.
00-242-3908 <sub>NP</sub>	4	8

Copper head.

	Total Wt/Lb	Lg/In.
00-194-1645	1/2	11
00-194-1648	2	13
00-187-1016	3	14

Lead head

	Total Wt/Lb	Lg/In.
00-243-2951	3	14

Hard Plastic

	Wt	Face Dia/In.	Lg/In.
01-072-7987	8 oz	1	10
01-071-5356	14 oz	1/1/2	10
01-097-4520	1-1/2 lb	1-3/4	11
01-065-9037*	3 lb	2-1/2	14
01-065-2211	4 lb	2-3/4	16

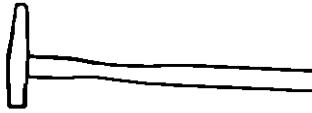
\* Soft Plastic

Striking hammer. Hand drilling short pattern. 4-1/2 inches long, forged Steel head. Double face, ground finish. Hickory handle.



	Head Wt/Oz	Lg/In.
00-224-4141 <sub>NP</sub>	4	10-1/2

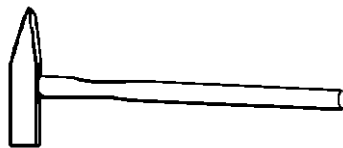
Tack hammer. Magnetized forged Steel head, with a Hickory handle.



	Head Wt/Oz	Lg/In.
00-293-2193	5	11

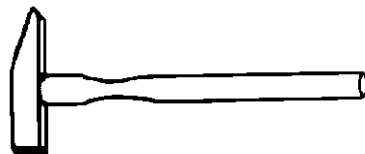
Tinner's hammer. Enamel-coated forged Steel head with bright finished face. Hickory handle.

Riveting



	Head Wt/Oz	Lg/In.
00-224-4113 <sub>NP</sub>	16	14

Setting



	Head Wt/Oz	Lg/In.
00-230-7855 <sub>NP</sub>	16	13

Welder's hammer. Flat Steel handle. Cross peen and punch point.

Straight peen

	Head Wt/Oz	Lg/In.
00-585-2383 <sub>NP</sub>	14	5 to 5-1/2

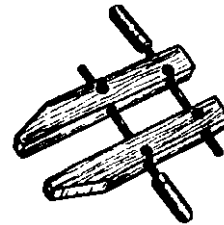
## HAMMER-BRUSH, WELDER'S

Welder's straight-peen and brush. Double beveled chisel edge. 4 inch length, detachable wire brush. Forged-Steel or coiled Steel handle. Two extra brushes included.

	O/A Lg/In.
00-240-3096 <sub>NP</sub>	10-1/2 to 11

## HAND SCREW

Cabinet worker's hand screw clamps. Each jaw made of seasoned hard-rock maple to preclude warping. Steel screws with left hand thread on one end and right hand thread on other end.



	Size/In.	O/A Jaw Lg/In.
00-222-1534 <sub>NP</sub>	6	10
00-222-1535 <sub>NP</sub>	10	14

## HANDLE, HAMMER

Hardwood hammer handles. Red and/or White hickory handles. Grade symbols indicate quality of hickory handles. AA-finest, A-medium, B-coarse.

Blacksmith's type. Grade A or B.

	Eye-end Lg/In.	W/In	Handle Lg/In.
00-254-6626 <sub>NP</sub>	1	3/4	16

Carpenter's type

	Eye-end Lg/In.	W/In	Handle Lg/In.
00-287-4528 <sub>NP</sub>	1	1/2	14

Machinist's type. Grade A or B.

	Eye-end Lg/In.	W/In	Handle Lg/In.
00-288-6560 <sub>NP</sub>	1-1/16	9/16	16

Sledge type. Grade AA or B.

	Eye-end Lg/In.	W/In	Handle Lg/In.
00-288-6564 <sub>NP</sub>	1-5/16	15/16	36

Grade B

	Eye-end Lg	Width	Handle Lg
00-266-7023 <sub>NP</sub>	1-7/16	1-3/16	36

## HANDLE, MATTOCK-PICK

Wooden handle. Overall length, 36.000 inches nominal.

00-288-6574

## HANDLE, SCREWDRIVER

Plastic. Overall length 4-1/8 inches, diameter 1-3/16 inches. With spring locking device to hold interchangeable bits.

00-056-3935

## HANDLE, SOCKET WRENCH

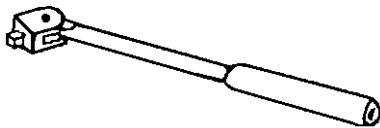
Drive handles for square-drive socket wrenches. Nickel or Chrome Plated Steel.

Brace type speeders. Single revolving grip.



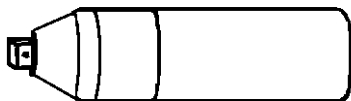
	Drive Size/In.	Lg/In.
00-240-1418 <sub>NP</sub>	1/4	14
00-237-4969 <sub>NP</sub>	3/8	16
00-249-1071 <sub>NP</sub>	1/2	18

Flexible-hinge handles. Works at any angle.



	Drive Size/In.	Lg/In.
00-221-7960	1/4	5-1/2
00-240-5396	3/8	8-1/2
00-221-7958	1/2	11-1/4
00-236-7590	1/2	16-1/2
00-221-7959	3/4	20-1/2

Impact types. Loosens and tightens nuts, bolts, and screws. Spin rigid type.



	Drive Size/In.	Lg/In.
00-472-2607 <sub>NP</sub> *	1/4	6
00-293-2885 <sub>NP</sub>	3/8	5-1/4

\* SPCC HX Quality control.

Reversible ratchet handles. Regular type.



	Drive Size/In.	Lg/In.
00-221-7957 <sub>NP</sub>	1/4	4
00-240-5364 <sub>NP</sub>	3/8	5-3/4
00-230-6385 <sub>NP</sub>	1/2	9-1/2
00-541-8444 <sub>NP</sub>	1/2	15
00-249-1076 <sub>NP</sub>	3/4	17

Flex-head reversible ratchet handle. Hinge joint at ratchet head allows 120 degree swing in handle. 3/8 inch square drive. 8-7/8 inch length.



00-065-4903<sub>NP</sub>

Sliding T handles. Can be used as "T" or "L" handle in tight places, to loosen stubborn connections.

	Drive Size/In.	Lg/In.
00-221-7966 <sub>NP</sub>	1/4	4-1/2
00-241-3143 <sub>NP</sub>	3/8	7

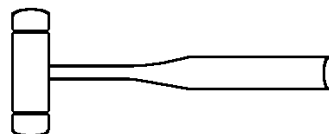
Spin-type speed handles. Plastic screwdriver grip.



	Drive Size/In.	Lg/In.
00-242-3256	1/4	5-5/16

## HOLDER, INSERTED HAMMER FACE

Holder for screw-in plastic faces. One-piece nonsparking and nonmagnetic heads with fiberglass handles. Screw-in head readily accepts insert faces. Order separately, not furnished with holder. Face diameter, head length, and weight (with insert) indicated.



Regular holder

	Face Dia/In.	Head Lg/In.	Wt
00-903-8545	1	2	6 oz
00-903-8546	1	2	9 oz
00-903-8555	1-1/2	2-3/8	1-1/8 lb
00-903-8553	2	2-1/2	2 lb
00-903-8552	3	3-3/4	3-1/2 lb

## HOLDER, SCREWDRIVER BIT, FEMALE SQUARE DRIVE

Adapter for driving male hex shank screwdriver bits. Bit-locking design, holds bit securely.



Fits 1/4 inch male shank bits.

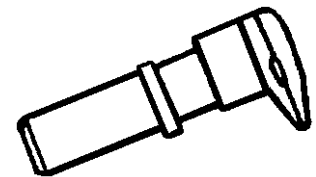
	Drive/In.
00-528-2892 <sub>NP</sub>	3/8

Fits 5/16 inch male shank bits.

	Drive/In.
00-528-2891 <sub>NP</sub>	1/4

## HOLDER, SHEET METAL, EDGE GRIP

Forceps operated sheet metal holder. Edge spring compression type.



	Jaw opening/In.
00-197-5344	1/2 W x 1/2 dp

## HOLDER, SHEET METAL, HOLE

Forceps operated sheet metal holders. Hole spring compression type. 0 to 1/4 inch clamping capacity.



	Rivet Size/In.
00-242-3789 <sub>NP</sub>	3/32
00-541-1808 <sub>NP</sub>	1/8
00-222-3336 <sub>NP</sub>	5/32
00-242-3791 <sub>NP</sub>	3/16

## HOOK

One working end. Steel 7 inch overall length by 1/8 inch diameter. Working end tapered, for 1 inch with .062 inch bent through 180 degrees.

00-873-4006<sub>NP</sub>

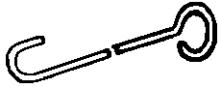
S-shaped working end. Steel 7 inch overall length by 9/32 inch diameter.

00-873-3998<sub>NP</sub>

# CLASS 5120

## HOOK, HELICAL SPRING PULLER, HAND

Helical spring puller hook, with loop handle 4-9/16 inch length handle. 1/16 inch distance across throat. 1/8 inch stock diameter.



00-448-3927

## IGNITER, FRICTION

Spark-lighter for oxyacetylene torches. Wire frame with hooked round fil. No. 6-40 NF threaded flint holder with single flint.

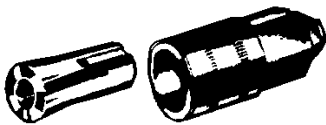


00-965-0326<sub>NP</sub>

## INSERTER AND REMOVER, STUD

For removing damaged bolts and studs. Chrome or Nickel Plated Steel.

Collett-grip type for NC and NF threaded studs. Wrenchable male hex end on drawbolt turns threaded-jaw collets.



1/4, 5/16, 3/8, 7/16, 1/2, 9/16, and 5/8 inch stud size range.

00-390-8586<sub>NP</sub>

Eccentric wheel type for smooth threaded, or unthreaded studs. 1/2 inch square female or male hex drive end. Ribbed cam grips studs, 1/4 to 3/4 inch diameter.



00-288-6578<sub>NP</sub>

## INSERTER, ELECTRICAL CONTACT

	Contact Size
00-007-5752	16
00-177-7028	22
00-005-8054	20
00-251-9503 <sub>NP</sub>	22M
00-137-9140 <sub>NP</sub>	22
00-177-6967 <sub>NP</sub>	20
00-018-0529 <sub>NP</sub>	16
00-079-4598	20
00-079-4599	16
00-079-4600	17-0512
00-930-7504	18-0116
00-132-0396	20

## INSTALLATION TOOL, CABLE TIE

SPECIAL FEATURES: Pistol Grip. For installing MS3367-1, dash 2 and dash 5. Also MS3368-1, dash 2, dash 3, dash 4 and dash 5 cable ties. Adjustable tension with cut-off tool.

00-781-7891

## INSTALLING AND REMOVAL TOOL, CONNECTOR ELECTRICAL CONTACT

Combination tool for installing and removing electrical contacts from a variety of connectors. One piece Plastic construction, with a White removal tip.

	Size	Color
00-157-3138	12	Yellow
00-132-5451	12	Yellow
00-132-5218	16	Blue
00-915-4587	20	Red
00-132-6328	20	Red
00-132-5808	22	Green

## INSTALLING AND REMOVAL TOOL, ELECTRICAL CONTACT

Use for contact sizes: 22d and 23. Colored coded with a Green installing tip and a White removal tip. Overall length, 3-1/2 inches.

00-018-0575

## INSTALLING TOOL, TUBE PACKING RING

Designed for 5/8 inch outside diameter tubing. Includes: one hand-insertion tool, 6-3/4 length by 25/32 diameter, and one tapered loading pin, 2- 3/8 inch length.



00-224-6634

## INTRENCHING TOOL, HAND

Hinged shovel and handgrip. One serrated cutting blade edge and one axe blade edge. Alum D type hand grip. Used to remove earth

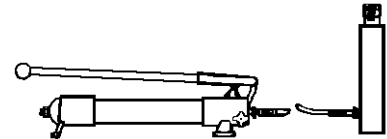
and capable of severing roots and clearing light bush.

00-878-5932<sub>NP</sub>

## JACK, HYDRAULIC, HAND

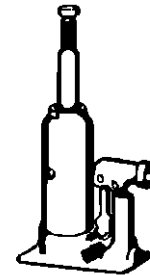
Hand-operated hydraulic jacks with solid plunger for lifting and lowering loads. Rated capacity indicated.

Remote control type. Cylinder and ram connected to pump. Used for general purpose maintenance, construction, and transportation work.



	Cap/Ton	Lift
00-293-0078	10	5-7/8 to 7
00-293-0076	10	13-1/4 to 17-1/2

Self-contained, lever control type. With screw extension. For general industrial and vehicle use.



	Cap/Ton	Lift
00-233-6829	3	9 to 16-7/8
00-595-8396	8	9-1/2 to 17-7/8

## JACK KIT, HYDRAULIC, HAND

It is intended that with the aid of the hydraulic jack, with attachments and accessories, the operator shall be capable of: (1) pulling with chains and pull-plate, (2) pushing with flat base, V-base, and/or serrated saddle, (3) clamping with clamp head and toes, and (4) spreading with spreader toes. Furnished with plastic, wood or metal case. Remote hydraulic hand jack with manually operated pump, a remote ram, and a hose assembly connecting the two, with lever operated handle and a relief valve. 10 cubic inch minimum reservoir capacity and minimum of .05 cubic inches per stroke displacement. Rams with 10 inch collapsed height and 5 inch plunger travel. 6 foot hose with quick disconnect at ram end. ATTACHMENTS: Clamp, (offset head) (1); serrated or grooved saddle (1); 90 degree concave V-blades (2); flat base (1); flexible (rubber) head, 3 inch diameter (1); male connector (1); 5 foot minimum long chains, 1/4 inch minimum diameter of cross section with hook on one end (2), chain pull plate (1); adjustable body spoon (1); wedge head (1); adjustable extension (1); plunger toe (1); ram



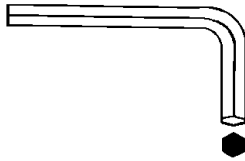
(body) toe (1); 6 steel quick-disconnect extension tubes, 3 inch length. (1), 5-16 inch length (1), 15 inch length (1). Remaining 3 equaling not less than 47 inch length. With each tube being not less than 6 inches or more than 23 inches long. Male adapter (1); lock pins (4); extension tube connectors (3).

00-935-0772 4 ton

## KEY, SOCKET HEAD SCREW

Socket-head screw keys (wrenches). Hexagon spline and square-head types.

Hex wrench. L-type Alloy Steel, with 2 working ends. Width across flats (WAF) and long arm length listed in inches.



Short series

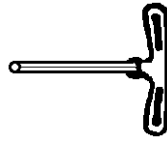
	WAF/In.	Arm Lg/In.
00-555-2639 <sub>NP</sub>	.028	1-7/32
00-198-5400 <sub>NP</sub>	.035	1-5/16
00-198-5401 <sub>NP</sub>	.050	1-3/4
00-198-5398 <sub>NP</sub>	1/16	1-27/32
00-224-2504 <sub>NP</sub>	5/64	1-31/32
00-242-7410 <sub>NP</sub>	3/32	2-3/32
00-224-2482 <sub>NP</sub>	7/64	2-7/64
00-889-2162 <sub>NP</sub>	7/64	2-7/32
00-240-5292 <sub>NP</sub>	1/8	2-11/32
00-889-2163 <sub>NP</sub>	9/64	2-15/32
00-198-5392 <sub>NP</sub>	5/32	2-19/32
00-491-9516 <sub>NP</sub> *	5/32	2-1/2
00-240-5300 <sub>NP</sub>	3/16	2-27/32
00-242-7411 <sub>NP</sub>	7/32	3-3/32
00-224-4659 <sub>NP</sub>	1/4	3-11/32
00-240-5274 <sub>NP</sub>	5/16	3-3/4
00-198-5390 <sub>NP</sub>	3/8	4-11/32
00-198-5391 <sub>NP</sub>	1/2	5-11/32
00-240-5268 <sub>NP</sub>	9/16	5-27/32
00-224-2510 <sub>NP</sub>	5/8	6-11/32

\* SPCC HX Quality Control Item.

Long series

	WAF/In.	Arm Lg/In.
00-596-1236 <sub>NP</sub>	1/32	2-49/64
00-293-1476 <sub>NP</sub>	1/16	3-3/32
00-293-0080 <sub>NP</sub>	5/64	3-9/32
00-221-8036 <sub>NP</sub>	3/32	3-15/32
00-198-5413 <sub>NP</sub>	5/32	4-7/32
00-984-0247 <sub>NP</sub>	9/64	3-7/16
00-198-5410 <sub>NP</sub>	3/16	4-19/32
00-241-3179 <sub>NP</sub>	7/32	4-31/32
00-241-3180 <sub>NP</sub>	1/4	5-11/32
00-198-5409 <sub>NP</sub>	5/16	6-3/32
00-198-5406 <sub>NP</sub>	3/8	6-27/32
00-198-5407 <sub>NP</sub>	1/2	8-11/32
00-198-5404 <sub>NP</sub>	9/16	9-3/32

Fixed "T" Steel handle. Replaceable external hexagon blade.

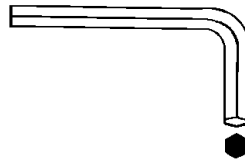


	WAF/In.	Lg/In.
00-952-0108 <sub>NP</sub>	1/8	5-5/8
00-293-2224 <sub>NP</sub>	5/32	5-9/16
00-826-6007 <sub>NP</sub>	3/16	5-5/8
00-773-8026	7/32	6-1/2
00-554-9203 <sub>NP</sub>	7/32	6-5/8

Straight hex Steel blade. With 2 indent stops, 1/2 inch from one end.

	WAF/In.	Lg/In.
00-872-4869	3/4	6-5/8

Spline wrenches. L type. Alloy Steel, two working ends. Size (nominal diameter) and long-arm length as noted.



Short series.

4 Splines

	Dia/In.	Lg/In.
00-827-2967 <sub>NP</sub>	3/64	1-5/16
00-224-2496 <sub>NP</sub>	5/64	1-3/4

Square-key blade and screwdriver type handle. 1-1/8 inch length nonadjustable blade, 19/64 inch across, and 4-3/8 inch overall tool length. Part of TERMINAL BOARD, 5940-00-178-0392.

00-241-3181

External hexagon single end with screwdriver handle. Steel wrenching surface, Plastic handle and ball point tip. 15 inch overall length 5/32 inch wrenching surface.

01-289-3021

## KEY SET, SOCKET HEAD SCREW

Socket-head screw wrench sets.

SETS IN METAL HOLDERS

L type hexagon wrench sets. Sizes included (nominal width across flats) indicated below.

8 self contained wrenches. Sizes: 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, and 1/4 inch.

00-439-8988<sub>NP</sub>

7 piece, roll L style, hexagon.

	WAF/In.	Drive Lg/In.
00-112-9599	2MM	2

WAF/In.	Drive Lg/In.
3MM	2-1/4
4MM	2-7/8
5MM	2-7/8
6MM	3-1/16
7MM	3-5/16
8MM	3-7/8

12 piece set of L Type hexagon wrenches. SPECIAL FEATURE: Ball point head screw Sizes: 3/16, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, and 5/16. Case included.

01-004-2718<sub>NP</sub>

SETS IN PLASTIC WRAPPERS

L type hexagonal wrench sets. Sizes shown are nominal width across flats (WAF). 10 Short series wrenches. Sizes: 1/32, 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, and 1/4 inch.

00-729-6392

11 Short series wrenches. Sizes: 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, and 3/8 inch.

00-595-9244

11 piece set of L-type hexagon wrenches. Size and length: 3/64 by 2-27/32, 1/16 by 3, 5/64 by 3-3/16, 3/32 by 3-3/8, 1/8 by 3-3/4, 5/32 by 4-1/8, 3/16 by 4-1/2, 7/32 by 4-7/8, 1/4 by 5-1/4, 5/16 by 6-3/16, and 3/8 by 6-3/4.

00-529-1475

20 short series wrenches. Sizes: 1/64, 1/32, 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, and 3/4.

00-935-4641

15 standard large metric hex keys. Size: 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 17, and 19 MM.

01-046-5079

12 straight hexagon blade set with screwdriver handle. SPECIAL FEATURE: Hexagon ball shape wrench ends. Sizes: WAF 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, and 5/16.

00-116-7841

5 adjustable hexagon blades with screwdriver type handle. 3 inch long blades. Sizes: 3/64, 1/16, 5/64, 3/32, and 1/8. Plastic handle with setscrew lock and 1/16 inch key for bit change or adjustment.

00-696-4768

8 piece set, hexagon and spline, with screwdriver type handle. 4 L-type hexagon keys with screw on handle. Sizes: 1/32, 3/64, 1/16, and 5/64. Four removable spline blades. Diameter Sizes: 3/64, 1/16, 5/64, and 3/32 inch.

# CLASS 5120

00-679-4459

8 drivers with hex bits. Screwdriver type handles. Sizes .035, .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, plus .050 and 1/16 inch. Keys for bit change or adjustment, and a bag container.

00-912-1085

9 drivers 4 inch length ballpoint hexagon key blades, supplied with regular handle and extension. Size .05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, and 3/16 inch.

01-018-8956

9 drivers, with hexagon bits in roll.

	Driver Size
01-063-4004	3/64 x 6-5/8
	1/16 x 6-5/8
	5/64 x 7-1/8
	3/32 x 7-1/8
	7/64 x 7-1/8
	1/8 x 7-1/8
	9/64 x 7-1/8
	5/32 x 7-1/8
	3/16 x 7-1/8

L type spline wrench sets. Sizes shown are maximum major diameter.

9 short series wrenches. Sizes: with 4 splines: 1/32, 3/64, 1/16, and 5/64 inch. With 6 splines: 3/64, 1/16, 5/64, 3/32, and 7/64 inch.

00-970-8947

12 short series wrenches. Sizes with 4 splines: 1/16, 5/64. With 6 splines: 1/16, 3/32, 7/64, 9/64, 3/16, 7/32, 1/4, 19/64, 3/8, and 29/64 inch. With case. Non-sparking, Nonmagnetic.

00-893-5686

14 short series wrenches. Sizes: 1/16, 9/64, 5/64, 3/32, 7/64, 9/64, 3/16, 7/32, 1/4, 19/64, 3/8, 29/64, .595, and 5/8.

00-529-2553

10 piece set of hexagon wrenches with integral "T" handle grip for greater turning power and more leverage. Sizes noted are nominal. Width across flats (WAF): 3/32, 7/64, 1/8, 9/64, and 5/32 inch, all with 3 inch long handles. 3/16, 7/32, and 1/4 inch, all with 4 inch handles. 5/16, and 3/8 inch, with 6 inch long handles. All blades are 9 inches long. No holder furnished.

00-935-7340

## KNIFE, PUTTY

Putty knives for glazing, scraping, smoothing, and filling. High grade Steel blade. 3-1/2 inch length, 1-1/4 inch width, 3-3/4 inch long handle.

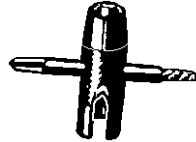


00-221-1536 Flexible  
00-294-4605 Semi-flexible

## LUBRICATION FITTING TOOL

T-handle tool reams out, cleans, and retaps high pressure grease fittings. Socket wrench opening at each end. T-handle has LH spiral on one end for removing broken or worn fittings, other end has tap for rethreading fittings.

1/8-27 tap size, 7/16 inch socket size. For standard hexagon, angle, or straight fittings.



00-246-2311<sub>NP</sub>

1/4-28 tap size, 5/16 inch socket size. For midget hexagon, angle, or straight fittings.

00-223-9533

## MALLET, RAWHIDE

Used where soft non marring applications are needed. Non sparking and non magnetic. Round shaped head. Face diameter and head length shown in inches.

	Face Dia./In.	Head Lg./In.
00-293-3398	1-1/4	2-3/4
00-293-3397	2	3-1/2
00-222-2220	2-3/4	4-3/4

## MALLET, RUBBER

Hard Rubber mallet. 24 ounce solid resilient Rubber mallet for body, fender, and battery work. 2-1/4 by 4 inch head, 15 inch Hickory handle.



00-293-3399

## MALLET, WOOD

8.000 inches nominal length. Round shape. Face diameter, 6.000 inches nominal. Hermispherical face not included. SPECIAL FEATURES: Laminated head; 36 inch long handle.

00-926-7116

## MARLINESPIKE

Wire rope type marlinspikes. Formed with 5/16 inch diameter lanyard eye. Length in inches as noted. Carbon Steel, polished.



	Lg./In.
00-221-2731 <sub>NP</sub>	8
00-293-1136 <sub>NP</sub>	12
00-224-9440 <sub>NP</sub>	16

Nonsparking, nonmagnetic, Aluminum Bronze.

	Lg./In.
00-288-7769 <sub>NP</sub>	16

Manila rope type Marlinspike, with lanyard eye.

	Lg./In.
00-221-2728 <sub>NP</sub>	6

## MATTOCK

Handle length, 34.000 inches. Head weight, 4.000 pounds. SPECIAL FEATURES: Combination ax and hoe. Wildland firefighter's cutting and digging tool. Hardwood handle.

00-293-3467

Handle not furnished. Pick type. Head weight, 5.0 pounds. SPECIAL FEATURES: Carbon Steel. 3.500 inch nominal blade width. Number 6 eye.

00-243-2395

## MIRROR, INSPECTION

1-1/4 inch diameter mirror. 8 inch overall length.



01-313-4096

1 inch diameter mirror. 9 inch overall length.

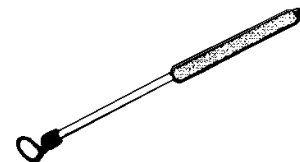
01-313-4097

Telescoping Handle

7/8 inch diameter glass mirror. Handle adjusts from 4-1/2 inch to 17 inch and comes with a pocket clip.

00-177-6870

2-1/2 inch diameter glass mirror. Handle adjusts from 9 inch to 15 inch.

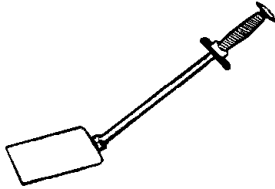


01-278-8257

3-3/4 inch diameter mirror. 3-piece handle nickelplate reflecting surface resistant to heat discoloration. Extends from 12 inches to 34 inches. Polished.

00-618-6901

Plunger-actuated adjustment mirrors. Spring loaded handle permits one-handed operation. Mirror locks into any angle from 90 to 180 degrees. Rectangular glass mirrors.



00-278-9926<sub>NP</sub> 1-1/4 x 1-1/2 x 10  
00-618-6902<sub>NP</sub> 1-3/4 x 2-5/8 x 16

1-1/4 inch diameter mirror. 14 inch length, overall. Furnished with magnifying mirror.

00-879-4998

Non Spec Items

135 degree fixed position mirror. 4-1/2 inch to 17 inch overall length. 1-1/4 diameter hinged for 360 degree adjustment.

00-053-1808

## MIRROR, REPLACEMENT, INSPECTION

Glass piece, 2-9/16 inch length by 1-11/16 inch width. Fits end item: 5120-00-618-6902.

00-363-3914<sub>NP</sub>

## MULTIPLIER, TORQUE WRENCH

Drive surface, 0.375 inches nominal first end and 0.750 inches nominal second end. Square, both ends internal, drive end shape. Torque capacity, 0.0 foot-pounds minimum and 1200.00 foot-pounds maximum. Carrying case furnished. SPECIAL FEATURES: Mechanical dial scale or battery powered electrical display; dial accuracy prom 2 per-cent. Operating temperature range minus 20 degrees Fahrenheit to plus 130 degrees Fahrenheit.

00-169-2986

Gear ratio: 4 to 1. 1250 feet/pounds torque capacity. SPECIAL FEATURES: Planetary gear type function, 1/2 inch input and 3/4 inch output, square drive.

00-506-9092

Geared style. Steel overall. Overall length, 25.000 inches nominal. Overall height, 4.375 inches nominal first end and 1.000 inches nominal second end. Drive end shape, square first end, internal and square second end,

external. Gear ratio 3 to 1 minimum. Torque capacity, 2000.0 foot-pounds nominal. Weighs 17.00 pounds.

00-574-9318

Geared style. Overall length, 7.000 inches nominal by 8.406 inches nominal height. Overall width, 10.875 inches nominal. Drive surface size, 1.000 inches nominal single end. Drive end shape, Square single end external. torque capacity, 2500.0 foot-pounds nominal. SPECIAL FEATURES: Dial indicator, dial increments 50 foot-pounds, 3/8 inch square female input drive.

00-482-2543

## NOSE ASSEMBLY, FASTENER REMOVAL TOOL

For thread size 6 low profile Deutsch turn-loc fasteners.

00-005-1025

## NAIL SET ASSORTMENT

Set of four. Includes point diameter sizes: 1/16, 3/32, 1/8, and 5/32.



00-293-3341<sub>NP</sub>

## NOZZLE, CAULKING GUN

Plastic disposable type. Round orifice. Straight shape 1/4 inch NPT external threads. Designed for nonpowered tool operation.

	Dia./In.	Lg./In.
00-673-1885	1/8	2-1/2
00-773-3791	1/8	4

## NUT AND SCREWDRIVER

Consists of: handle; 9 interchangeable nut driver blades; 4 single end interchangeable screwdriver blades; 2 Phillips, 2 flat tips in plastic coated canvas wrap. Nut driver wrench sizes: 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 7/16, and 1/2 inches. Screwdriver blade sizes: Flat tip 3/16, and 1/4 inches, with Phillips No. 1 and 2.

00-440-8008

## PALM, SEWING

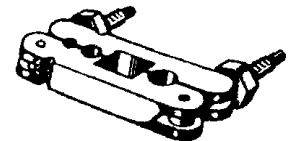
Leather sewing palm for right hand. Metal thimble forces needle through heavy material.



00-223-6837<sub>NP</sub> Roping  
00-223-6838<sub>NP</sub> Seaming

## PINCH-OFF TOOL, TUBING

For making temporary gas-tight closures on Copper Brass Aluminum and soft Steel tubing. 1/4, 5/16, 3/8, and 1/2 inch size diameter holes round out tubing after pinching. Wing-nut screw adjustment.

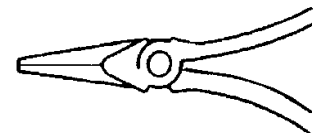


00-223-8846<sub>NP</sub>

## PLIERS

Chain (round) nose pliers. Use to form loops, handle small objects and reach into small openings. Polished heads with scored gripping surfaces.

Long nose (without cutter).



00-268-3579<sub>NP</sub> Lg./In. 6

Long nose, with side cutter. 1/8 inch nose diameter.

00-247-5177<sub>NP</sub> Lg./In. 6  
00-541-6732<sub>NP</sub>\* 6-3/4  
00-293-0032<sub>NP</sub> 7  
\* Nonsparking and nonmagnetic.

Short nose with side cutter.

00-222-2232<sub>NP</sub> Lg./In. 5

Short nose, without cutter. 1/16 inch nose diameter.

00-293-3486<sub>NP</sub> Lg./In. 4  
00-126-2076<sub>NP</sub>\* 4-1/2  
00-224-1533<sub>NP</sub> 8  
\* With coil spring.

Short nose without cutter. Smooth jaws. 1/32 inch nose diameter. SPCC HX QUALITY CONTROL ITEM.

# CLASS 5120

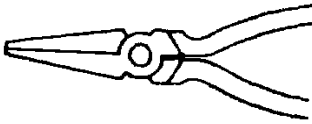
01-088-4319<sub>NP</sub> Lg./In. 4

Short nose without cutter. Smooth jaws. 1/16 inch tip width.

00-087-4106 Lg./In. 4-17/32

Duckbill pliers without cutter. Polished head, tapered jaws.

Long nose, Smooth jaws.



01-028-0937<sub>NP</sub> Lg./In. 4  
00-256-2150<sub>NP</sub> Lg./In. 6

Short round nose, smooth jaws with rounded edges. Very fine point for delicate work in very confined areas.

01-192-4963 Lg./In. 4

Short Nose. Scored jaws.

00-595-9519<sub>NP</sub> Lg./In. 8

Wide nose, without cutter. Scored gripping surfaces.

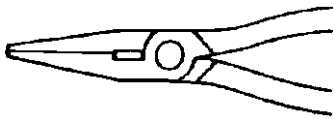


00-188-3239<sub>NP</sub> Lg./In. 4

Medium nose, Smooth jaws. Without cutter.

01-028-7102<sub>NP</sub> Lg./In. 4-1/2

Flat medium nose, with side cutter. Scored surfaces.



00-293-3480<sub>NP</sub> Lg./In. 6

Flat wide nose, without cutter. Scored gripping surfaces.

00-240-6213<sub>NP</sub> Lg./In. 6

Fencing, single head pliers. Suitable for

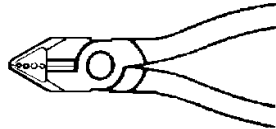
maintaining and installing wire fence on metal or wood posts. Combination: hammer, pincer, staple puller, 2 eyes in head for twisting and splicing wire, and 2 side cutters. Forged Steel.

00-293-3485 Lg./In. 10

Lineman's pliers with side cutters. Polished heads. For cutting and gripping wire.

Without wire skinners.

Plain handles.

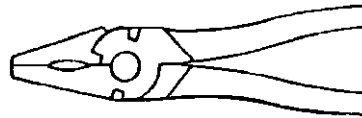


00-239-8254<sub>NP</sub> Lg./In. 6  
00-239-8251<sub>NP</sub> Lg./In. 8  
00-224-1540<sub>NP</sub>\* Lg./In. 8  
\* Nonsparking and nonmagnetic.

Insulated Handles.

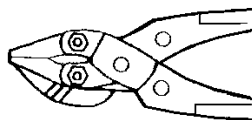
00-756-1155 Lg./In. 6  
00-756-1156 Lg./In. 8

Combination utility and cutting pliers. Non insulated handles.



00-227-7097<sub>NP</sub> Lg./In. 8

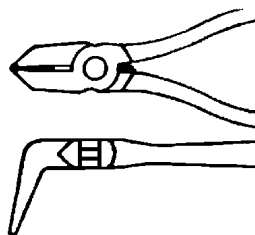
Lineman's parallel action jaw pliers. One jaw with .040 inch deep groove for gripping wire. With side cutter, 1/2 inch jaw opening.



00-224-1541<sub>NP</sub> Lg./In. 6-1/2

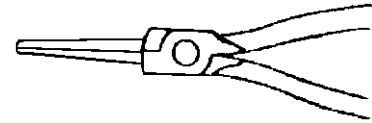
Round needle nose pliers. Polished heads, half-round tapered jaws.

Curved nose, without cutter.



00-403-4555\* Lg./In. 4-1/2  
00-239-8250<sub>NP</sub> Lg./In. 6  
\* With spring coil in handle.

Straight nose, without cutter.

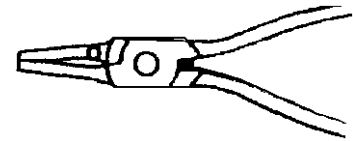


00-293-3481<sub>NP</sub> Lg./In. 6-1/2

Straight nose with cutter.

00-184-9403<sub>NP</sub> Lg./In. 6-1/2

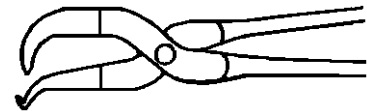
Round nose and round-jaw pliers. Without cutter. Circular gripping surfaces for bending and shaping wire.



00-239-8252<sub>NP</sub> Lg./In. 4-1/2

## PLIERS, BRAKE REPAIR

For passenger cars and light trucks. With groove in end of one handle, and socket or cup. Spring remover and replacer on end of other handle.



00-690-8044<sub>NP</sub> Lg./In. 12

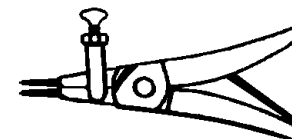
## PLIERS, RETAINING RING

Flat-jawed retaining ring pliers. For inserting and removing external and internal rings.

Pliers for internal retaining rings. Housing diameter range of standard and inverted type retaining rings shown.

Pliers with adjustable jaw stop and spring.

Straight tips.



	Ring Size/In.	Tip Dia/In.
00-293-0048 <sub>NP</sub>	.038-1.020	.038-1.370
00-293-0045 <sub>NP</sub>	.070-1.750	.070-2.000

	Ring Size/In.	Tip Dia/In.
00-293-0046 <sub>NP</sub>	.090-3.000	.090-3.500

90 degree bent tips

	Ring Size/In.	Tip Dia/In.
00-024-9531 <sub>NP</sub>	.038-.562	.038-.562
00-595-9532 <sub>NP</sub>	1.062-1.750	1.430-2.000
00-602-4845 <sub>NP</sub>	1.810-3.000	2.060-3.000

Pliers without jaw spring and stop.

Straight tips.



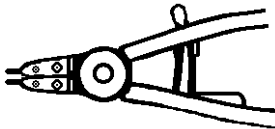
	Ring Size/In.	Tip Dia/In.
00-596-1106 <sub>NP</sub>	.250-.310	.022 nom

45 degree bent tips

	Ring Size/In.	Tip Dia/In.
00-640-6356 <sub>NP</sub>	.038-1.020	.038-1.370

Pliers with double ratchet action. Without spring and stop.

Straight tips.



	Ring Size/In.	Tip Dia/In.
00-293-0186 <sub>NP</sub>	3.060-6.250	3.150-4.000

Pliers for external retaining rings. Shaft diameter range of standard and/or inverted type rings shown.

Pliers with round jaws. Non Spec item. Accommodates external retaining rings.

Bent tips, 90 degree.

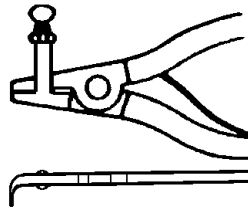
00-024-9528<sub>NP</sub> 5-5/16 in. lg

Pliers with adjustable jaw stop and spring.

Straight tips.

	Ring Size/In.	Tip Dia/In.
00-288-9717 <sub>NP</sub>	.025-.870	.050-1.000

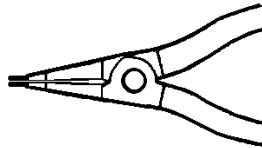
90 degree bent tips



	Ring Size/In.	Tip Dia/In.
00-408-1434 <sub>NP</sub>	.038-.870	.038-1.000

Pliers without jaw stop and spring.

Straight tips.



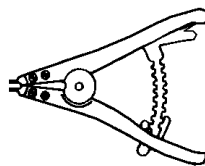
	Ring Size/In.	Tip Dia/In.
00-293-2513 <sub>NP</sub>	.038-.870	.038-1.000
00-595-9555 <sub>NP</sub>	.093-1.430	1.060-2.000

45 degree bent tips

	Ring Size/In.	Tip Dia/In.
00-640-6353 <sub>NP</sub>	.038-.830	.038-1.000

Pliers with double ratchet action, without spring and stop.

Straight



	Ring Size/In.	Tip Dia/In.
00-595-9552 <sub>NP</sub>	3.540-6.500	3.500-3.930

Pliers with straight jaws. .038 inch diameter tips. 5-3/4 inch length. Non-Spec.

00-089-0874

Pliers with straight jaws. Non Spec items. Accommodates external and internal retaining rings. 3-5/16 inch internal setting and 3-15/16 inch external setting.

Round tips, .070 inch diameter.

00-088-9393 7-7/8 in. lg

Automotive brake key pliers. Expands horseshoe C-washers and lock rings on brakes, transmissions, differentials, and pulleys. 7 inch length. 1-7/16 inch maximum jaw opening.



00-595-9551<sub>NP</sub> External ring type

## PLIERS, SLIP JOINT

Forged Steel slip joint pliers. Chrome or Nickel Plated polished faces.

Angle nose, tongue and groove, or notched slot box joint, without cutter.

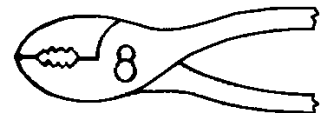


	Lg/In.	Min Jaw Cap/In.
00-278-0350 <sub>NP</sub>	5	7/16
00-278-0351 <sub>NP</sub>	8	11/16
00-541-6731 <sub>NP</sub> *	10	1-3/8

\* Nonsparking and nonmagnetic.

Straight-nose combination jaw pliers, with wire cutter.

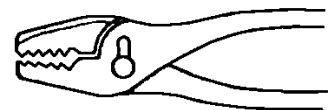
Regular nose



	Lg/In.
00-223-7396 <sub>NP</sub>	6
00-223-7397 <sub>NP</sub>	8
00-240-6217 <sub>NP</sub> *	8
00-223-7398 <sub>NP</sub>	10

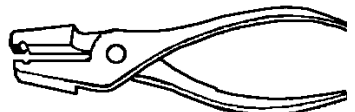
\* Nonsparking and nonmagnetic.

Thin nose



	Lg/In.
00-224-1567 <sub>NP</sub>	6

Hose clamp wire pliers. For installing or removing corbin (self-tightening spring wire) type clamps, up to 2 inch inside diameter hose size. Jaw width is 7/16 inch.



	Lg/In.
00-537-3375 <sub>NP</sub>	7-5/8

Parrot nose, tongue and groove pliers. Serrated jaws, without cutters. Polished head, heavy duty.

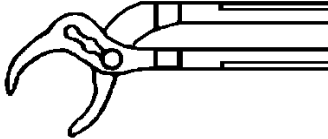
# CLASS 5120

00-059-6711<sub>NP</sub> Lg/In.  
9-7/8 x 1-3/8

Angle nose, tongue, and groove pliers. With insulated handles.

00-781-0819 Lg/In.  
12 x 2

Electrical connector pliers. Multiple joint, conduit nose style. Used to loosen and tighten all sizes of threaded lock collars, of electrical connectors without marring.



00-624-8065<sub>NP</sub> Lg/In.  
9

## PLIERS, WIRE TWISTER

Manual return. Right-hand twist. 12 inches long with side cutter.

00-305-2306

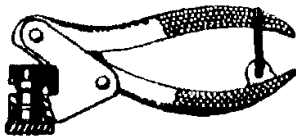
Manual return. Right-hand twist. 12 inches long with side cutter.

00-542-4171

## PRESS, LEAD SEAL, HAND

Plier type press. Bright Nickel finish. Consists of malleable Iron handles and removable Steel dies. Lower dies blank.

Reversible upper die is engraved with round, partial inspection symbol on one side and square. Complete inspection approval on the other side.



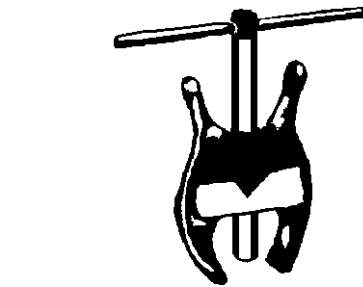
00-301-1078<sub>NP</sub>

Plain dies which are removable but not reversible.

00-237-6995<sub>NP</sub>

## PULLER, BATTERY TERMINAL

Pulls battery terminal clamps by gripping clamp either below or on sides. 2-spring loaded jaws with "T" type forcing screw. Plastic pouch furnished.



00-944-4268<sub>NP</sub>

## PULLER, FUSE

Plier type cartridge fuse pullers for use on shipboard or in damp places. Grips and holds fuses during installation and removal. Safeguards against shocks. For 1/4 inch to 1/2 inch diameter midget fuses, grid leaks, etc. One working end.



00-224-9453 Lg/In.  
5

For 11/32 inch to 1.000 inch range, of cartridge diameters accommodated. Fuse electrical rating, 0 to 100 amp/250V, and 1 to 100 amp/600 V.

00-224-9456 Lg/In.  
8

For 1-9/16 inch to 2-1/2 inch range of cartridge diameters accommodated. Fuse electrical ratings, 100 to 600 amp/250V, and to 400 amp/600V. Two working ends.

00-243-2776 Lg/In.  
12

## PULLER, MECHANICAL

Used to pull the vertical drive thrust bearing on Fairbanks-Morse 1/4 OP Engine.

00-016-3627

Mechanical gear and bearing pullers.

2-jaw external single-end grip. Head or yoke with forcing screw, straps, cap screws, and jaws.

4 inch spread range, 3-1/4 inch reach.

00-293-2925<sub>NP</sub> Size  
2

8 inch spread range, 6 inch reach.

00-288-7710<sub>NP</sub> Size  
3

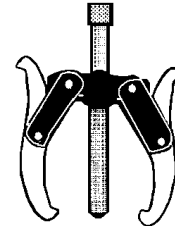
10 inch spread range, 9 inch reach.

00-030-7942<sub>NP</sub> Size  
4

12 inch spread range, 11 inch reach.

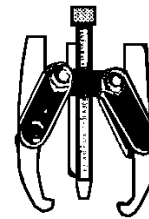
00-288-7711<sub>NP</sub> Size  
5

2-jaw external double-end grip. 8 inch spread range. 5-1/2 inch reach.



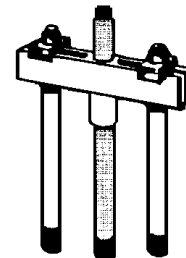
00-595-9305<sub>NP</sub> Size  
2

3-jaw external single end grip. Jaws equally spaced on head or yoke. 8 inch spread, 6 inch reach.



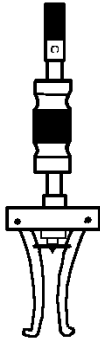
00-516-3120<sub>NP</sub> Size  
4

Push-pull type gear and bearing pullers. Slotted cross head with forcing screw and nut, side plates and washers, securing nuts or bolts, and 5/8-18NF-2A threaded legs. 2 to 7-3/4 inch spread range. 6-3/4 to 11-3/4 inch reach length.



00-288-7713<sub>NP</sub> Size  
1

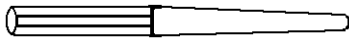
Slide hammer, gear and bearing, two jaw internal. 6-1/4 inch reach length. 1/2 to 6-1/4 inch spread range. Heavy Duty.



00-293-1429<sub>NP</sub>

## PUNCH, ALIGNING

For lining up holes in plates, frames, and housings. High grade alloy Steel, taper length hardened. Point diameter, body size, and overall length shown in inches.



	Point Dia./In.	Body Size/In.	O/A Lg./In.
00-756-1195 <sub>NP</sub>	3/32	1/4	8
00-293-0448 <sub>NP</sub>	3/16	3/8	8
00-242-0763 <sub>NP</sub>	1/4	7/16	8-1/2
00-240-8894 <sub>NP</sub>	5/16	1/2	8-1/2

## PUNCH, CENTER, AUTOMATIC

Automatic, adjustable center punch. Removable point angle, 80 degrees. Knurled body and screwcap. Dimensions in inches.



	Body Dia./In.	O/A Closed Lg./In.
00-595-9471 <sub>NP</sub>	3/8	3-1/8
00-293-3466 <sub>NP</sub>	1/2	4-1/8
00-221-1072 <sub>NP</sub>	5/8	5

## PUNCH, CENTER, SOLID

Solid center punches for marking steel, Brass, Aluminum, and wood. High-grade Steel, point-end hardened. Octagonal or round knurled body, point angle 90 degrees.



	Point Dia./In.	Stock Dia./In.	Lg./In.
00-278-1264 <sub>NP</sub>	1/16	3/16	3-1/8
00-293-3510 <sub>NP</sub>	5/64	1/4	3-1/4
00-293-3512 <sub>NP</sub>	1/8	5/16	3-3/4
00-293-3509 <sub>NP</sub>	5/32	3/8	4
00-237-4956 <sub>NP</sub>	7/32	1/2	4
00-197-9490 <sub>NP</sub>	3/8	5/8	6

## PUNCH, DRIFT

High grade alloy Steel aligning punches.

	Point Dia./In.	Stock Dia./In.	Lg./In.
Size 2			
00-240-8898 <sub>NP</sub>	1/8	5/16	8
Size 12			
00-242-0764 <sub>NP</sub>	3/8	9/16	9

## PUNCH, DRIVE PIN

Straight type. Used for driving pins from force-on or drive-fit holes. High grade alloy Steel, point hardened. Circular body punches suitably knurled to facilitate a firm grip.



Standard point. Length, 4 inches.

	Point Dia./In.	Point Lg./In.
00-240-6082 <sub>NP</sub>	1/16	1/2
00-242-3435 <sub>NP</sub>	3/32	11/16
00-242-5960 <sub>NP</sub>	1/8	3/4
00-240-6104 <sub>NP</sub>	5/32	13/16
00-293-0791 <sub>NP</sub>	3/16	15/16
00-293-0792 <sub>NP</sub>	7/32	1
00-240-6083 <sub>NP</sub>	1/4	1
00-273-0001 <sub>NP</sub>	3/8	1

Extra long point length.

	Point Dia./In.	Point Lg./In.	O/A Lg./In.
00-752-9030 <sub>NP</sub>	1/16	1-1/2	6
00-223-1014 <sub>NP</sub>	1/8	3-1/2	8
00-223-1015 <sub>NP</sub>	3/16	3-1/2	8
00-223-1016 <sub>NP</sub>	1/4	3-1/2	8
00-223-1018 <sub>NP</sub>	3/8	3-1/2	8

Tapered starting punches.



	Point Dia./In.	Taper Lg./In.	O/A Lg./In.
00-242-3433 <sub>NP</sub>	1/8	1-5/8	4-1/2
00-293-1408 <sub>NP</sub>	3/16	2-3/8	5
00-223-0989 <sub>NP</sub>	3/8	3	6

Straight type. With detachable handle. NAVSHIPSYSCOM Drawing S2603-840327.

	Point Dia./In.	Point Lg./In.
00-880-4565 <sub>NP</sub>	27/64	1
00-880-4560 <sub>NP</sub>	17/32	1
00-880-4570 <sub>NP</sub>	19/32	1
00-880-4574 <sub>NP</sub>	5/8	1-1/4
00-880-4604 <sub>NP</sub>	57/64	1-3/8
00-880-4583 <sub>NP</sub>	1-1/16	1-3/8

## PUNCH, PRICK

For locating hole centers. High grade alloy Steel, hardened point end. 50 degree angle, 3/8 inch body, 4 inch length.



	Size
00-224-7446 <sub>NP</sub>	2

## PUNCH SET, DRIVE PIN

5 components. 8 inch length.

	Point Dia./In.	Point Lg./In.	Size No./In.
00-541-7704	1/8	1-1/2	1
	3/16	3-1/2	2
	1/4	3-1/2	3
	5/16	3-1/2	4
	3/8	3-1/2	5

9 components. 4 inch length.

	Point Dia./In.	Point Lg./In.	Size No./In.
00-883-3003	1/16	1/2	1
	3/32	11/16	2
	1/8	3/4	3
	5/32	13/16	4
	3/16	15/16	5
	7/32	1	6
	1/4	1	7
	5/16	1	8
	3/8	1	9

## PUNCH, TUBE BELLING, HAND

Outside tube beelling punches. Outside diameter tube size and beelling radius in inches as shown.



	OD	Belling Radius
00-595-9463 <sub>NP</sub>	5/8	0.550

## PUNCH AND DIE, GROMMET INSERTING

For inserting eyelet, spur, and conical point grommets.



For eyelet grommets.

	Size
00-357-5753 <sub>NP</sub>	00
00-357-5754 <sub>NP</sub>	0
00-256-9259 <sub>NP</sub>	2

# CLASS 5120

	Size
00-256-0651 <sub>NP</sub>	4

For spur and conical-point grommets.

	Size
00-221-1146 <sub>NP</sub>	0
00-221-1147 <sub>NP</sub>	1
00-221-1148 <sub>NP</sub>	2
00-221-1149 <sub>NP</sub>	3
00-221-1150 <sub>NP</sub>	4
00-221-1151 <sub>NP</sub>	5

## PUNCH SET, ALIGNING

Set of 5 aligning punches in roll. Includes 1-each of: 3/32, 3/16, 1/4, 5/16, and 3/8 inch point diameters.

00-330-5869<sub>NP</sub>

## REMOVER, ELECTRICAL CONTACT

For removing miniature poke-home contacts. Contact size indicated.



	Size
00-177-7029	23
00-177-7095	23
00-146-6558 <sub>NP</sub>	22M
00-146-6557 <sub>NP</sub>	22
00-177-6960 <sub>NP</sub>	20
00-409-5206 <sub>NP</sub>	16
00-133-0097	16
00-133-0098	12
01-212-2432*	20
00-079-4601	20
00-079-4602	16
00-079-9461	12
00-930-7503 <sub>NP</sub>	20-01
00-133-0144	8
00-133-0351	22
00-148-9844	16

\* Aluminum handle, Corrosion Resistant Steel plunger, and Stainless Steel probe.

Designed for No. 22 AWG size pin contact.

00-409-5202

## REMOVER PIN

Forged-Steel extractor, 6 to 10 inch length. Pointed and shaped for easy removal of cotter pins.

00-222-4284

## REMOVAL TOOL KIT, CONNECTOR ELECTRICAL CONTACT

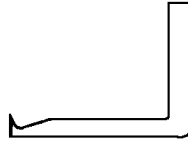
Designed for AN/MS and type F contacts, Sizes 8, 12, and 16. Consists of handle and 5 tips.

00-789-0093\*

\* Non Spec Item.

## REMOVAL TOOL, SPECIAL

Brass. 3/16 inch diameter, with 3-1/8 and 4-1/8 inch length legs. Long leg indented 3/32 inch. For removing "O" rings. Prior to use, tool may require modification to suit removal application by filing of grind-out. NAVSHIPSYSOCOM Drawing Number 820-4550827. SPCC HX Quality Control Specs.



01-019-8081<sub>NP</sub>

## REMOVER, ELECTRICAL CONTACT

Designed for AMP MTE Model IV, Tandem Spring and Mini Tandem Spring. Use with old style locking Lance design. 21 degree Lance Reset Angle. 0.1000 inch Lance release tip large. END ITEM: AMP AMPMODU MTE Housings.

00-006-9966

Number 16

00-006-4536

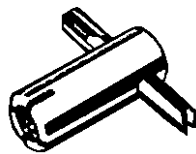
## REMOVING TOOL

END ITEM: F-5 Aircraft. Remover, main landing gear orifice tube.

00-011-2084

## REPAIR TOOL, PNEUMATIC TIRE VALVE

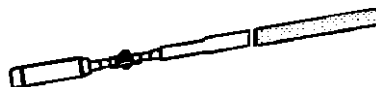
Standard-size repair tool. Inserts and removes cores, rethreads stem, deflates tubes, and smooths mouth of tire valves.



00-308-3809

## RETRIEVING TOOL, MAGNETIC

Magnetic pick-up tools. Permanent magnetic head retrieves small objects from tight or inaccessible spaces.



Telescoping type. Hinged magnet head lifts 8 ounce minimum, moves at any angle. Extends to 27-1/2 inches.

00-545-4268

Flexible uncovered spiral wound wire. 21 inch length overall 19/64 inch diameter, with 3 inch length by 17/32 inch diameter magnet. 12 ounce lifting power. Designed to prevent parts from accidentally parting.

00-620-1432

Flexible type. Integral magnet head lifts 5 ounce minimum. Insulated coiled-spring shaft bends around corners. 33 inch length.

00-850-6313

## RIVETER, BLIND HAND

Lightweight riveters for serrated-stem Aluminum and mild Steel rivets. Installs and sets pull-through and self-plugging type blind rivets.

Straight-head type with puller heads for each size, 100 degree flathead rivets. 6 inch long heads, size 1/8, 5/32, and 3/16 rivet diameter. With carrying case.

00-357-6065<sub>NP</sub> 9-1/2 in. lg

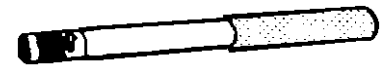
Straight head type. For rivet sizes: 3/32, 1/8, 5/32, and 3/16 inch. 4 inch nose pliers provided to set smooth mandrel Alum, Steel, Copper, and Brass rivets. Rivet assortment and metal or plastic case with operating instructions and rivet selection provided. Rivet assortment includes 50 each: 1/8 by 1/8 inch and 1/8 by 1/4 inch button head, Steel rivet and mandrel. 50 each: 1/8 by 1/8 inch and 3-1/16 by 1/8 inch, button head Alum rivet and mandrel. 50 each: 1/8 by 1/8 inch, countersunk Steel rivet and mandrel.

01-289-4310

## SCREW STARTER, HAND

Screw-holding, slot-gripping screwdrivers. Length under handle and tip width as noted.

Center-rotating tip type. Pushing pressure on handle holds screw.



Aluminum handle.

	Lg	Tip W
00-243-3296 <sub>NP</sub>	2-3/4	9/32
00-288-8728 <sub>NP</sub>	6	9/32

Plastic handle.

	Lg	Tip W
00-278-0326	4	1/4
00-278-0327	8	3/16

Non Spec Types.



Flat tip with rotating wedge type grip. Steel handle. Blade 3/8 inch width by .030 inch thickness. Blade length any acceptable.

00-370-1241

Combination Phillips and flat tip type. Rotating wedge type grip. Plastic handle, 3/8 inch diameter by 7-3/16 inch length with fluted outer surface. Phillips screw starter on one end 9/32 inch diameter of tip. .030 inch thick tip for each stationary blade, .025 thickness of tip for movable blade. Straight slot screw starter on opposite end; 9/32 inch diameter tip, .030 inch thick tip for each stationary blade, .090 inch length of each tip of stationary blade. Movable blade to be .025 inch thick by 100 inch length. 9 inch length overall.

00-832-6221

## SCREWDRIVER, CROSS TIP

Phillips Screwdriver

For driving and removing cross-recessed screws. Straight blades with round cross sections and plastic handles. Tip size designation and blade length as noted.



	Tip No./In.	Lg./In.
00-820-2995	0	1-1/4
00-498-7365*	0	2
00-060-2004	0	4
00-224-7370	1	1
00-240-8716	1	3
00-529-3101	1	8
00-227-7293	2	1-1/2
00-234-8913	2	4
01-367-3795†	2	4
00-764-8097‡	2	4-1/2
00-596-0861†	2	7
00-542-3438	2	8
01-367-3801	2	8
00-234-8912	3	6
00-224-7375	4	8

\* Furnished with pocket clip.

† Furnished with external screw gripper.

‡ With 3/8 inch square female drive in end of handle.

Nonsparking, nonmagnetic blades.

	Tip No./In.	Lg./In.
00-596-0864	2	4
00-596-0865	3	6

Reed and Price Screwdrivers.



Steel blade and Plastic handle.

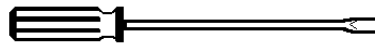
	Lg./In.	Tip Dia./In.
00-596-0866	3	3/16
00-237-8173	4	1/4
00-237-8172	6	5/16
00-237-8174	8	3/8

## SCREWDRIVER, FLAT TIP

Intended for driving and removing single-slotted screws. Polished Steel blades, Plastic handles.

Cabinet-tip screwdrivers. Plain round blade, straight-sided tip.

Extra-light duty. For Number 1 to Number 4 screws.



	Blade Lg./In.	Tip W./In.
00-278-1269	3/4	9/64
00-289-9662	2-1/2	9/64
00-287-2504	3	9/64
00-905-6728†	3	3/16
00-540-0563	4	9/64
00-905-6730*	4	1/4
00-287-2505	5	9/64
00-010-7913*	5	9/64
00-596-8653	6	1/4
00-010-7915†	6	1/4
00-278-1267	8	9/64
00-010-7914†	8	3/16
00-905-6729*	8	3/8
00-913-5843*	10	3/16

\* With cushion grip handle.

† 3/8 In. female Square drive in handle top.

Light duty. For No. 3 to No. 8 screws.

	Blade Lg./In.	Tip W./In.
00-288-7803	1-1/2	3/16
00-236-2127	3	3/16
00-278-1270	5	3/16
00-227-7356	6	3/16
00-260-4837	8	3/16
00-227-7334	10	7/32
00-278-1268	12	7/32

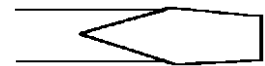
Normal-duty. For Number 12 screws.

	Blade Lg./In.	Tip W./In.
00-293-0314	10	1/14
00-222-8866	1	7/32
00-596-8502	1-1/2	1/4
00-278-1273	1-3/4	5/16

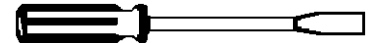
Flared-blade screwdriver with external gripping screw starter. Square, hexagon, or octagonal blade. Plastic handle.

	Blade Lg./In.	Tip W./In.
00-293-3171	4	7/32
00-293-3159	6	5/32
00-293-3178	10	5/32

General Purpose screwdrivers. Flare sided blades. Plastic handles.



Medium-heavy duty.



Round blade, plain handle.

	Blade Lg./In.	Tip W./In.
00-293-3311	3	7/32
00-222-8852	4	1/4
00-062-0813	6	3/16
00-234-8910	6	5/16
00-237-6985*	8	3/8
00-293-3309	10	3/8
00-278-1276	12	3/8
00-236-3242	18	1/2

\* With cushion grip handle.

Round blade, 3/8 inch square female drive. Insert in handle end. For drive handle see: 5120-00-786-3782.

	Blade Lg./In.	Tip W./In.
00-764-8058	4	1/4
00-764-8059	6	5/16

Square blade, plain handle.

	Blade Lg./In.	Tip W./In.
00-596-9364	8	1/4

Heavy duty.



Square or round forged blade with plain handle.

	Blade Lg./In.	Tip W./In.
00-278-1283	6	5/16

Mechanic's and machinist's heavy-duty screwdrivers. Flared blades. Steel handles with wood inserts.

Pocket-clip screwdriver with Plastic handle. Flared blades for general purpose light-duty work.



Magnetized tip.

# CLASS 5120

	Blade Lg./In.	Tip W./In.
00-227-7377	2	1/8

Non-Magnetic tip.

	Blade Lg./In.	Tip W./In.
00-236-2140	2	1/8
00-720-4969	3	3/32
00-542-2281	4	1/8

Common screwdriver with nonsparking, nonmagnetic blades. Flared blades, Plastic handles.

	Blade Lg./In.	Tip W./In.
00-236-2132	3	9/32
00-293-1608	6	5/16
00-287-2502	8	3/8
00-287-2503	12	3/8

## SCREWDRIVER, JEWELERS, SWIVEL KNOB

Without external screw gripper.



	Tip W./In.
00-180-0706	3/64

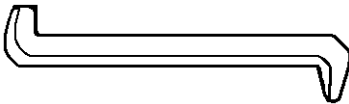
Blade length 7/8 inch. Handle length 3-1/2 inch. One blade.

	Tip W./In.
00-180-0705	1/32
00-180-0727	1/16
00-180-0728	5/64
00-180-0729	3/32
00-180-0730	7/64

## SCREWDRIVER, OFFSET

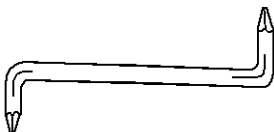
Offset screwdrivers, for use in restricted spaces.

Double offset, single flat tip each end.



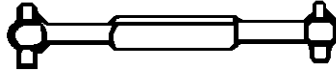
	Tip Size/In.	O/A Lg./In.
00-022-9794 <sub>NP</sub>	1/4	3
00-287-2130 <sub>NP</sub>	1/4	4-1/4
00-288-9710 <sub>NP</sub>	5/16	5
00-240-5232 <sub>NP</sub>	3/8	6

Double offset. Phillips cross tip each end. Tapered Steel shanks.



	Tip Size/In.	O/A Lg./In.
00-256-9014 <sub>NP</sub>	1 & 2	4-3/4
00-241-3170 <sub>NP</sub>	2 & 3	5-1/2
00-242-3268 <sub>NP</sub>	3&4	6

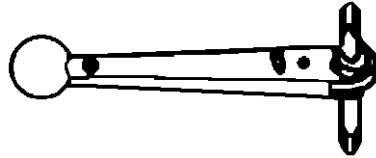
Nonmagnetic, nonsparking. 4 way offset, double flat tips each end. One end with 2 blades offset at 45 degrees, other end with a parallel blade and a 90 degree offset blade. High grade Steel.



	W./In.	Lg./In.
00-287-2129 <sub>NP</sub>	5/32	3
00-180-0798 <sub>NP</sub>	1/4	5-1/4

## SCREWDRIVER, RATCHET

Reversible, right-angle offset, ratcheting type. With Phillips Number's 1 and 2 nonremovable blades. 5/16 inch length, overall length 3-13/16 inches.



00-892-5931<sub>NP</sub>

Double-spiral action screwdrivers. Automatic spring return, turns right or left. Locks when closed. Furnished with 3 removeable flat-tip screwdriver bits. Closed length (with bits) listed.

Light-duty. With three bits: 5/32, 3/16, 7/32, inch tip widths.

	Lg./In.
00-221-7097	10-3/8

Medium-duty. With three bits: 7/32, 1/4, and 9/32 inch tip widths.

	Lg./In.
00-255-1096	17-1/4

8 removable hex-bits, 1-5/8 inch length with offset ratchet handle. Bit sizes: 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, and 5/16. Fit right angle offset screwdriver handle, 3-1/4 inch length.

00-288-8732

## SCREWDRIVER BIT SET AND HANDLE

Plastic hollow handle, 4 inch shank. Non-ratchet type handle. Bit types or sizes shown. Bits held by alnico magnet anchored in hollow shaft. Bits are magnetized to hold and start screws.

Bit types	Size or No.
Std	1/32 x 3/16
Std	3/64 x 1/4
Phillips	No. 1

Bit types Phillips

Size or No. No. 2

00-997-2858 4 Tips

Plastic hollow storage type handle. With pocket roll kit. Set of 3 reversible blades. Phillips size Number 1, 2, and 3. Flat tip widths 3/16, 1/4, and 5/16.

00-062-5413 6 Tips

9 straight hex-blade set with screwdriver type handle and 4 inch extension adapter. WAF of blades: 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, and 3/16. 4 inch length.

00-851-4247

Furnished with clear Plastic box. Consists of ratchet and 19 screwdriver bits. Ratchet has 1/4 and 5/16 inch hexagon openings.

1/4 In. Shank	5/16 In. Shank
.050 Hex	9/64 Hex
1/16 Hex	5/32 Hex
5/64	3/16 Hex
3/32 Hex	1/4 Square
7/64	5/16 Hex
1/8 Hex	3/8 Flat
7/32 Hex	
No. 1 & 2 Phillips	
1/4 Flat	
No. 1 & 2 Poi-Drive	

Each bit shall be furnished with a Rubber retaining ring to secure it in ratchet opening.

00-870-6928 19 Tips

## SCREWDRIVER SET, CROSS TIP

Set of 4 straight Phillips screwdrivers. Plastic handle, steel blades. Sizes: Number 1 by 3, Number 2 by 4, Number 3 by 6 and Number 4 by 8.

00-596-0828

Set of 5 straight Phillips screwdrivers. Plastic handles, Steel blades. Set includes one each of sizes: Number 1 by 1, Number 1 by 3, Number 2 by 1-1/2, Number 2 by 4, and Number 3 by 6.

00-357-7175

## SCREWDRIVER SET, CROSS TIP, STRAIGHT AND OFFSET

Set of 6 (straight and offset) Phillips screwdrivers. Set includes 4 straight Phillips screwdrivers, Sizes: Number 1 by 3, Number 2 by 4, and Number 4 by 8. Also 2 double offset screwdrivers. Sizes: Number 1 and 2 by 4-3/4, and Number 3 and 4 by 6.

00-580-0334

## SCREWDRIVER SET, FLAT TIP

Consists of 5 components. Plastic handles, Steel blades.

Blade		Blade	
Thk/In.	W/In.	Lg/In.	O/A Lg/In.
.037	1/4	1-1/2	3-1/4
.032	3/16	2-7/8	6-1/8
.037	1/4	4	7-5/16
.046	5/16	6	10-1/4
.050	3/8	8	12-3/4

00-103-9743

## SCREWDRIVER SET, FLAT TIP AND CROSS TIP

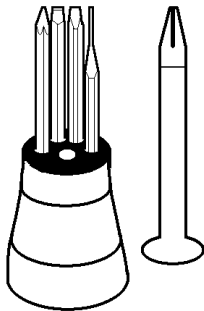
Consists of 8 components: 5 flat tip screwdrivers and 3 Phillips screwdrivers.

	W/In.	Blade Lg/In.
Flat	3/16	1-1/2
	1/4	1-1/2
	1/4	4
	5/16	6
Cross Tip	3/8	8
	1	3
	2	1.5
	2	4

01-033-2134

## SCREWDRIVER SET, JEWELER'S SWIVEL KNOB

Set of swivel knob screwdrivers. Steel handle with single-ended flat-tip blade. Includes one of each blade size: .025, .040, .055, .070, .080, and .100 inch tip width.



00-288-8739

## SCREWDRIVER SET

Set of 8 miniature screwdrivers with colored handles. To be inserted individually into the hexagon opening of Black Plastic handle (1-1/6 inch overall diameter by 3-1/8 inch length) when in use. Three Phillips cross sizes: Number 0 (Blue), Number 1 (Brown), and Number 2 (Amber). Five flat tip sizes, 3/32 inch (Green), 1/8 inch (Red), 5/32 inch (Black), 3/16 inch (Orange), and 1/4 inch (Amber). 3-1/2 inch overall length.

00-933-8979

## SCRIBER, DIAMOND POINT

Diamond marking pencil for inscribing glass surfaces. Natural diamond mounted in Steel nib and set in hexagonal Aluminum handle. About 6 inch length.

00-421-0000<sub>NP</sub>

## SCRIBER, MACHINIST'S

Machinist's scribers for layout work on metal. Knurled body or sleeve, long tapered points. Overall length shown.

Pocket style, single-point scribe. 3/8 inch diameter with hexagonal head, knurled chuck. 3/16 inch diameter reversible point, telescopes into body.



00-224-9728<sub>NP</sub> Lg/In. 6

Double point scribers. Straight and bent points. Non-removable points.



01-034-6884 Lg/In. 7.625

Adjustable sleeve type. 5/32 inch diameter. One piece scribing point fits 5/16 inch diameter sleeve with knurled chuck.

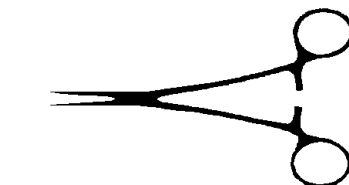
00-221-7063<sub>NP</sub> Lg/In. 8 to 9

Removable points type. Two threaded points fit into round sleeve.

00-596-1543<sub>NP</sub> Lg/In. 8 to 9

## SEIZER, SOLDERING

Tempered Stainless Steel. Box joint construction. Two position snap lock.



Curved serrated jaws. 00-012-4016<sub>NP</sub> Lg/In. 5-3/4

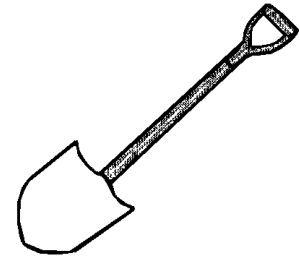
Straight serrated jaws. 00-012-4013<sub>NP</sub> Lg/In. 5-3/4

## SHOVEL, HAND

General purpose Steel-bladed shovels. Open back, socket pattern. Shoulder edges of blade are rolled. Hardwood handles. Commercial size as noted.

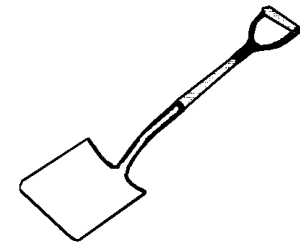
D-Handle.

Round point



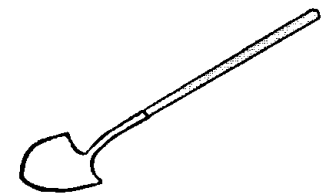
00-293-3336<sub>NP</sub> Lg/In. 12 nominal blade

Square point



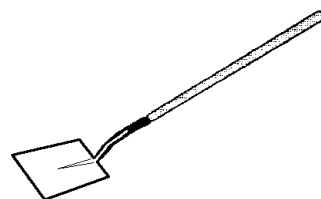
00-224-9326<sub>NP</sub> 10 W x 12 in. lg blade

Long handle



00-188-8450<sub>NP</sub> 49 in. handle  
00-965-0609 41.750 in. handle

Square point

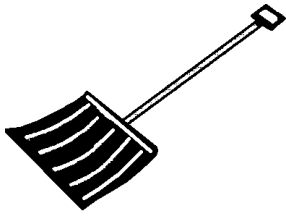


00-293-3330<sub>NP</sub> 12 in. nom lg blade, 39 in. handle

Snow shovel. Medium weight Steel blade. 14 by 17 inches with Black enamel finish. Hardwood "D"

# CLASS 5120

" handle with Steel reinforced grip. 48 inches overall length.



00-494-1863<sub>NP</sub>

## SLIDE HAMMER, GROUND ROD

Steel. 36 inches long. 0.625 inch diameter. 5/8-11 UNC by 3.250 inch threaded both ends. Black Oxide finish. Nut 5/8-11 UNC each end. Striker plate 4 inch outside diameter by 1 inch inside diameter thick center hole 5/8-11 UNC threaded Steel Black Oxide finish, striker 4 inch outside diameter by 0.750 inch inside diameter by 5 inches high with 0.750 outside diameter by 8 inch long handles centered each side. Steel Black Oxide finish.

01-013-1676

## SOCKET SET, SOCKET WRENCH

11 regular length sockets in metal case. 12 point. Sizes: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch.

00-935-7311<sub>NP</sub> 1/2 in. square drive

11 deep-style sockets in metal case. 12-point long length sockets. Sizes: 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, and 1-1/8 inch.

00-596-8622 1/2 in. square drive

13 regular length sockets in metal case. 6 point. Sizes: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch.

00-935-7313<sub>NP</sub> 3/8 in. square drive

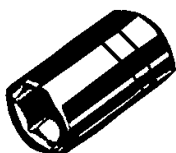
## SOCKET, SOCKET WRENCH

Detachable socket wrenches. Standard-wall, Chrome-Plated Steel. Wrench opening size listed.

6-point hexagon sockets. Use on hexagon nuts, bolts, and machine screws. Grips rounded corners.

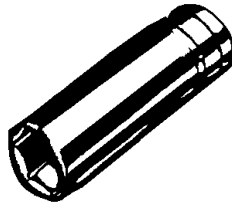
1/4 inch square drive.

Regular length



	Size
00-236-2262 <sub>NP</sub>	3/16
00-236-2263 <sub>NP</sub>	7/32
00-236-2264 <sub>NP</sub>	1/4
00-242-3345 <sub>NP</sub>	9/32
00-241-3186 <sub>NP</sub>	3/8
00-239-0016 <sub>NP</sub>	7/16

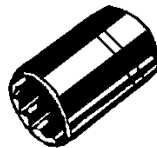
Long (deep) length



	Size
00-189-7920 <sub>NP</sub>	5/16
00-189-7922 <sub>NP</sub>	3/8

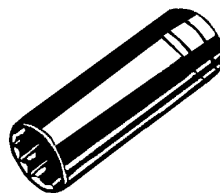
12 point (double-head) sockets. Use on standard hexagon nuts and cap screws. More turning positions than other types.

Regular length, 1 inch.



	Size
00-189-8609 <sub>NP</sub>	1/4
00-935-7487 <sub>NP</sub> *	5/16
00-235-5878 <sub>NP</sub>	5/16
00-242-3351 <sub>NP</sub>	11/32
00-242-3352 <sub>NP</sub>	3/8
00-935-7490 <sub>NP</sub> *	7/16
00-235-5869 <sub>NP</sub>	7/16
00-189-8610 <sub>NP</sub>	1/2

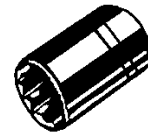
Deep Length. 2 inches. Midget sockets for light work. Thin walled to get at hard-to-reach places.



	Size
00-235-5822 <sub>NP</sub>	5/16
00-775-6980 <sub>NP</sub> *	7/16
00-087-0697 <sub>NP</sub>	1/2

3/8 inch square drive.

12-point, regular length.

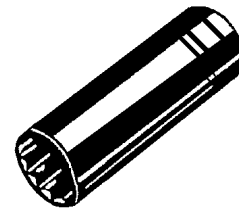


	Size
00-288-8155 <sub>NP</sub>	1/4
00-227-6702 <sub>NP</sub>	3/8
00-935-7410 <sub>NP</sub> *	3/8
00-227-6703 <sub>NP</sub>	7/16
00-237-0977 <sub>NP</sub>	1/2
00-227-6704 <sub>NP</sub>	9/16
00-237-4973 <sub>NP</sub>	5/8
00-232-5706 <sub>NP</sub>	11/16
00-227-6705 <sub>NP</sub>	3/4
00-788-5407 <sub>NP</sub> †	3/4
00-235-5807 <sub>NP</sub>	13/16
00-242-3330 <sub>NP</sub>	7/8

\* SAE-AS 954.

† Hexagon 6-point. Non Spec Item.

12 point, long length.



	Size
00-277-1463 <sub>NP</sub>	3/8
00-277-1464 <sub>NP</sub>	7/16
00-241-3185 <sub>NP</sub>	1/2
00-239-0017 <sub>NP</sub>	9/16
00-239-0018 <sub>NP</sub>	5/8
00-277-4252 <sub>NP</sub>	11/16
00-235-5879 <sub>NP</sub>	3/4
00-596-0836 <sub>NP</sub>	13/16
00-235-5809 <sub>NP</sub>	7/8

12-point socket and universal joint.



	Size
00-082-8526 <sub>NP</sub> *	5/16
00-242-3354 <sub>NP</sub>	7/16
00-237-0978 <sub>NP</sub>	9/16

\* 1/4 inch square drive, SAE-AS954.

Sparkplug-holding socket, 12 point wrench opening. Rubber insert holds standard auto plugs, for insertion or removal (not for use with shielded plugs).

1/2 inch square drive.

6-point, long length. 3-1/4 inch length, Non Spec.

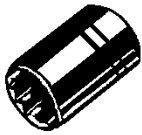
	Size
00-467-5127 <sub>NP</sub>	1-1/4

8-point, regular length.



	Size
00-180-1019 <sub>NP</sub>	9/16
00-180-1020 <sub>NP</sub>	5/8
00-199-7772 <sub>NP</sub>	3/4

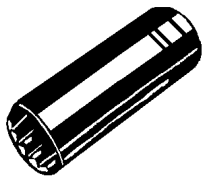
12-point, regular length.



	Size
00-237-0982 <sub>NP</sub>	3/8
00-189-7924 <sub>NP</sub>	7/16
00-237-0984 <sub>NP</sub>	1/2
00-189-7932 <sub>NP</sub>	9/16
00-935-7420 <sub>NP</sub> *	9/16
00-189-7946 <sub>NP</sub>	5/8
00-235-5870 <sub>NP</sub>	11/16
00-189-7985 <sub>NP</sub>	3/4
00-189-7934 <sub>NP</sub>	7/8
00-189-7935 <sub>NP</sub>	15/16
00-189-7927 <sub>NP</sub>	1
00-189-7913 <sub>NP</sub>	1-1/16
00-189-7914 <sub>NP</sub>	1-1/8
00-189-7917 <sub>NP</sub>	1-1/4
00-277-1465 <sub>NP</sub>	1-1/2

\* SAE-AS954.

12-point, long length. 3 inches.

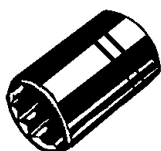


	Size
00-243-7350 <sub>NP</sub>	7/16
00-243-7348 <sub>NP</sub>	9/16
00-242-3349 <sub>NP</sub>	3/4
00-243-7342 <sub>NP</sub>	7/8
00-243-7343 <sub>NP</sub>	15/16
00-243-7340 <sub>NP</sub>	1
00-243-7341 <sub>NP</sub>	1-1/16
00-243-7339 <sub>NP</sub>	1-1/8
00-076-3270 <sub>NP</sub> *	1-1/2

\* Non Spec Item. 3-1/4 inches long.

3/4 inch square drive.

12-point, regular length.

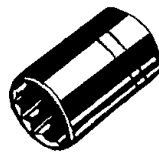


	Size
00-239-0021 <sub>NP</sub>	1-1/8
00-232-5681 <sub>NP</sub>	1-5/16
00-189-7931 <sub>NP</sub>	1-7/16
00-293-0094 <sub>NP</sub>	1-1/2
00-199-7768 <sub>NP</sub>	1-13/16
00-199-7769 <sub>NP</sub>	1-7/8

## SOCKET WRENCH ATTACHMENT, SCREWDRIVER

Internal wrenching hexagonal sockets. For socket head set screws and cap screws. Square female drive one end, hexagon male drive bit other end (male end hex width across flats). WAF, overall length shown.

### HEXAGON



1/4 inch square female drive.

	WAF/In.	Lg/In.
00-761-2015 <sub>NP</sub>	7/64	1-7/8
00-596-0934 <sub>NP</sub>	1/8	23/32
00-044-1718 <sub>NP</sub>	9/64	1-7/8
00-596-0940 <sub>NP</sub>	5/32	1-5/16
00-116-7692 <sub>NP</sub>	5/32	3-5/8
00-596-0938 <sub>NP</sub>	3/16	3/4
00-935-4612 <sub>NP</sub>	3/16	1-3/4

3/8 inch square female drive, short hexagon bit.

	WAF/In.	Lg/In.
01-075-1200	7/32	6-1/8
00-243-1674 <sub>NP</sub>	5/16	13/16

3/8 inch square female drive, long hexagon bit.

	WAF/In.	Lg/In.
00-935-7474 <sub>NP</sub>	9/64	2
00-683-8597 <sub>NP</sub>	3/16	2
00-596-8511 <sub>NP</sub>	7/32	2
00-596-8508 <sub>NP</sub>	1/4	2
00-683-8602 <sub>NP</sub>	5/16	2-1/4
00-555-2353 <sub>NP</sub>	5/32	6-1/16
00-596-1199 <sub>NP</sub>	3/8	2

1/2 inch square female drive.

	WAF/In.	Lg/In.
00-243-1676 <sub>NP</sub>	1/2	1-1/2

### FLAT SLOTTED

1/4 inch flat (slotted) drive.

	Size	O/A Lg/In.
00-797-2992 <sub>NP</sub>	HTS-2	1
00-863-4944 <sub>NP</sub>	HTS-3	1
00-640-6347 <sub>NP</sub>	1/4 x .033 in.	3

3/8 inch flat (slotted) drive.

	Size	O/A Lg/In.
00-243-7337 <sub>NP</sub>	1/4 x .037	3
00-797-2994 <sub>NP</sub>	HTS-4	1
00-863-4943 <sub>NP</sub>	HTS-4A	1-1/4

1/2 inch flat (slotted) drive.

	Size	O/A Lg/In.
00-223-6986 <sub>NP</sub>	47/64 x .109	1-3/4

### PHILLIPS (CROSS)

1/4 inch drive.

	Tip Size	O/A Lg/In.
00-180-0876 <sub>NP</sub>	1	2
00-879-3547 <sub>NP</sub>	2	1-7/8

3/8 inch drive.

	Tip Size	O/A Lg/In.
00-293-0318 <sub>NP</sub>	2	2
00-785-8151 <sub>NP</sub>	3	2-5/16
00-180-0881 <sub>NP</sub>	4	3
00-293-0319 <sub>NP</sub> *	4	3

\* Hexagon shank, detachable bit.

## SOCKET, WRENCH, FACE SPANNER

CRES overall. Passivate surface. Lug style. Overall length, 1.500 inches nominal. Outside diameter, 1.000 inches nominal. Drive surface size, 0.500 inches nominal. Square, single end internal.

00-001-2655

## SPATULA SET

Consists of: 3 spatulas with 2 each working ends. Length and end widths listed in inches.

O/A Lg	1st End		2nd End	
	W	W	W	W
7-1/4	1/16	9/32		
7-1/4	3/8	9/32		
7-1/4	3/8	1/2		

00-056-3237

## SPUDGER

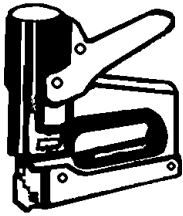
Fiber. Overall dimension: 5-1/2 inch length by 5/16 inch diameter.

00-293-3112

## TACKER

Gun-type staple tacker. Manually operated. Accommodates 1/2 inch width, flat-top staples. Listed in FSC 5315.

# CLASS 5120

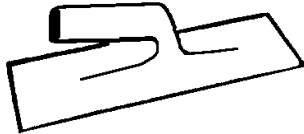


00-293-3412 4 x 12  
00-224-4748 4 x 14

Mastic trowel. For spreading mastic when laying asphalt tile. Serrated on one side and one end. 4-7/16 by 10-1/2 inch blade.

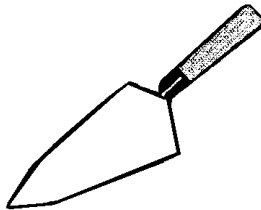
00-540-0754

Plastering trowel. 4-5/8 by 11-1/8 inch blade. 4-1/2 inch handle.



00-223-9480

Pointing trowel. 2-5/8 by 6 inch blade. 4-1/2 inch handle.



00-246-4350

Margin trowel. 2 by 8 inch blade.

00-009-3743

## TUNING WAND, ELECTRONIC EQUIPMENT

Plastic rod, 6 inch length. Outside diameter 3/16 inch Rigid.

00-288-7783

## TURRET HEAD ASSEMBLY, CONTACT POSITIONER, CRIMPING TOOL

Tools and kits covered by this specification are intended for crimping Mil-C-23216, MIL-C-26636, and Mil-C-39029 removable contacts (e.g., power, coaxial, shielded, thermocouple and filter pin contacts); Mil-C-39012 coaxial connectors; Mil-T-7928 splices; and Mil-F-21608 ferrules to wire conductors for use in electric connectors, terminal junction systems, and other electric and electronic components. These tools may be used to crimp other connecting devices of design or materials other than those specified here in, provided the required performance is obtained.

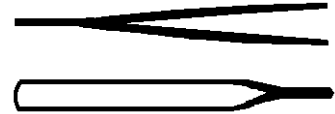
Contact Sizes

00-016-6382 12, 16, 20  
00-016-7582 12-12, 16-16, 20-20

## TWEEZERS, CRAFTSMAN'S

Chrome or Nickel Plated Steel tweezers.

Assembly smooth jaws. Fine tip .020 by .005 inch closed size.

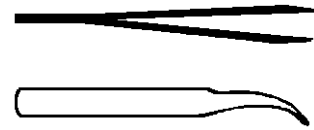


Lg/In.

00-247-0868<sub>NP</sub> 4-3/8

Curved-point tweezers.

Fine tip, smooth jaws. .010 by .025 inch closed tip size.



Lg/In.

00-288-9685<sub>NP</sub> 4-1/2

General purpose tweezers.

Fine tip. 0.015 by 0.005 inch closed tip size. 4-1/2 inch length overall.

With serrated jaws

00-247-0864<sub>NP</sub>

Slim point, smooth jaws. .030 by .050 inch closed tip size.

Lg/In.

00-252-7720<sub>NP</sub> 4-1/2

Self-closing cross-lock tweezers. Serrated jaws. 5/32 inch tip width, 3/4 inch jaw opening.

Lg/In.

00-293-0149<sub>NP</sub> 6-1/2

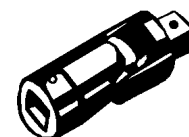
Cutting tweezers. Used for repair work on instruments where small objects (springs and wire) are to be cut. Angled cutting edge.

Lg/In.

00-596-1210<sub>NP</sub> 3-5/8

## UNIVERSAL JOINT, SOCKET WRENCH ATTACHMENT

Detachable square-drive universal joints. Chrome or Nickel Plated. Identical female and male square drive ends. Size in inches, as shown.



Medium duty. For .030 by .020 inch wire size staples. 3/16, 1/4, and 5/16 inch leg lengths.

00-250-9137

Heavy duty. For .050 by .020 inch wire size staples. 1/4, 5/16, 3/8, and 1/2 inch leg lengths.

00-889-1796

## TOOL, ANTIWICKING

"L" shaped head affords greater visibility, facilitates work in tightly confined solder areas. Box joint design prevents side slippage. Gives excellent conductor contact. Satin Chrome finish. Forged of solid, non-fatiguing Beryllium Copper Alloy. 4-1/2 inch overall length. Conductor contact length 1/16.

AWG/Size

00-954-1269<sub>NP</sub> 20  
00-954-1270<sub>NP</sub> 22

## TOOL, WIRE UNWRAPPING, HAND

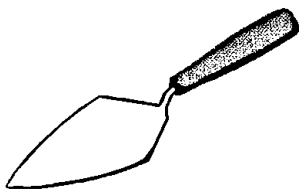
Used for unwrapping post Size .040 inches and 26 through 32 AWG wire size. 5.750 inch length overall. Both tips .750 inch length by .093 inch diameter. Handle 4.250 inch length.

00-871-5882

## TROWEL

Steel trowels with hardwood handles.

Brick trowel. Flexible blade, 5-1/4 by 10-1/4 inch. 5-1/2 inch handle.



00-223-9482

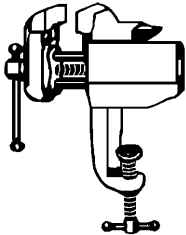
Regular cement trowels. Light spring Steel blade, 4-1/2 inch handle.



	Drive	O/A Lg
00-243-1686 <sub>NP</sub>	1/4	1-5/16
00-224-9215 <sub>NP</sub>	3/8	2-3/16

## WISE, BENCH, CLAMP BASE

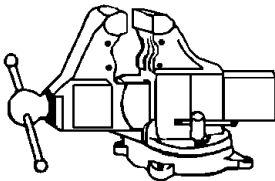
For light bench work. Fits benches 1/2 to 2 inches thick. Nominal jaw width and jaw opening. Stationary base. 3 inches by 3 inches.



00-221-1119<sub>NP</sub>

## WISE, BENCH AND PIPE

Heavy-duty bench and pipe vise. 360 degree swivel base, stationary main jaws. Replaceable pipe jaws grip pipe and round stock. Nominal jaw width and jaw opening size, as noted.



1/4 to 2-1/2 inch diameter pipe range.

00-188-1182<sub>NP</sub> 3 x 3-1/2 in. jaw

1/4 to 3-1/2 inch diameter pipe range.

00-223-1951<sub>NP</sub> 4-1/2 x 5 in. jaw

1/4 to 4-1/2 inch diameter pipe range.

00-243-9072<sub>NP</sub> 5 x 6 in. jaw

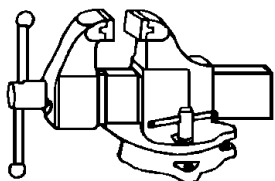
1/4 to 6 inch diameter pipe range.

00-293-0110<sub>NP</sub> 6 x 8 in. jaw

## WISE, MACHINIST'S

Machinist's bench vise with 360 degree swivel base. Replaceable main jaw facings. Hardened Steel sliding member. Jaw width and jaw opening size in inches as noted.

Stationary jaws.



00-180-0681 <sub>NP</sub>	3 x 4
00-293-1439 <sub>NP</sub>	4 x 6
00-221-1117 <sub>NP</sub>	5 x 8
00-223-1945 <sub>NP</sub>	6 x 9

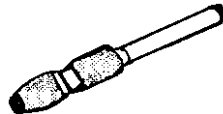
## WISE, MULTIPOSITION

Light-duty work positioner. For manufacture and repair of electronic and mechanical parts and assemblies. 2-1/2 inch jaw width, 2-1/4 inch jaw opening. Work holding head swivels 360 degrees horizontally, and tilts 90 degrees downward from normal level position. Locks in any position. Replaceable jaw faces.

00-991-1907<sub>NP</sub>

## WISE PIN

Single-chuck pin vise with metal handle. For hand or machine use. Chrome or Nickel Plated Steel. Hole extends full-length through knurled handle. Lets chuck hold files, taps, drills, etc, securely. Chuck capacity range as noted.



Chuck Cap. Rng

00-243-1349<sub>NP</sub> .045 to .125

Non-Spec type. Metal handle. 1st end chuck capacity, 0 to .059 inches. 2nd end chuck capacity, .046 to .081 inches.

00-595-8467<sub>NP</sub>

## WEDGE, JOINT BREAKING

Hardened Steel jointing and breaking wedges. For machine shop and ship construction work.

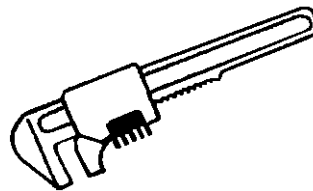
	Lg	W	Thk
00-224-9486 <sub>NP</sub>	6	1-1/2	3/4
00-224-9487 <sub>NP</sub>	10	2	2

Non-sparking, nonmagnetic flange wedge. Double taper style, 8 inch length overall.

00-223-8870<sub>NP</sub>

## WRENCH, ADJUSTABLE

Adjustable auto wrench. Steel or malleable Iron. Nominal length and minimum jaw opening capacity as shown.



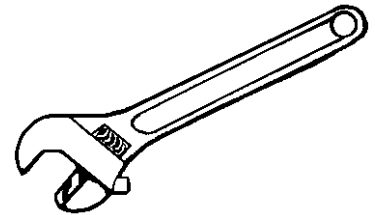
	Lg./In.	Cap./In.
00-242-3254 <sub>NP</sub>	9	2-1/2

	Lg./In.	Cap./In.
00-473-6476 <sub>NP</sub>	11	2-3/4
00-264-3793 <sub>NP</sub>	15	3-5/8

Adjustable monkey wrench. Steel or Iron. Nominal length and jaw opening capacity. Nonmagnetic and nonsparking.

	Lg./In.	Cap./In.
00-240-5336	12	2-1/8

Adjustable open-end wrench with 22-1/2 degree head. Rack and worm adjustment. Nominal length and minimum jaw opening, capacity shown.



Forged Steel, heavy-duty. Bright Chrome or Nickel-Plated finish. Polished head.

	Lg./In.	Cap./In.
00-240-5330 <sub>NP</sub>	4	.510
00-264-3795 <sub>NP</sub>	6	.760
00-240-5328 <sub>NP</sub>	8	.947
00-449-8083 <sub>NP</sub>	10	1.135
00-264-3796 <sub>NP</sub>	12	1.322
00-423-6728 <sub>NP</sub>	15	1.698
00-240-1414 <sub>NP</sub>	18	2.062
00-449-8084 <sub>NP</sub>	24	2.438

Nonsparking, nonmagnetic wrenches. Beryllium Copper.

	Lg./In.	Cap./In.
00-278-0340 <sub>NP</sub>	6	.076
00-293-0031 <sub>NP</sub>	8	.947
00-278-0341 <sub>NP</sub>	10	1.135
00-264-3794 <sub>NP</sub>	12	1.322
00-293-0008 <sub>NP</sub>	15	1.698

## WRENCH, BOX

Aluminum single head straight. Oval wrenching surface, non sparking. Wrenching end has two 1/4 inch wide slots and one 25/32 inch diameter hole in handle. Used to open and close Oxygen valves.

00-097-4136 4-15/16

Fixed box-end wrenches. Polished heads. 12 point (wrenches 7/16 inch or smaller, may be either 6 or 12 point). Wrench opening sizes and minimum length shown.



# CLASS 5120

15 degree offset, each end. Chrome Plated forged Steel.

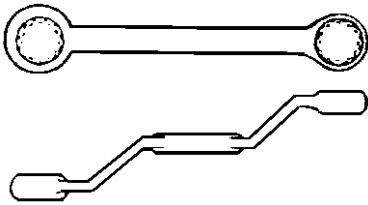
Regular length

	1st End/In.	2nd End/In.	Lg/In.
00-888-8007 <sub>NP</sub>	1/4	5/16	7-3/8
00-224-3146 <sub>NP</sub>	3/8	7/16	7-13/32
00-596-8556 <sub>NP</sub>	7/16	1/2	7-1/2
00-277-3364 <sub>NP</sub>	1/2	9/16	8-5/16
00-224-3148 <sub>NP</sub>	9/16	5/8	9-1/16

Nonsparking, nonmagnetic wrenches.

	1st End/In.	2nd End/In.	Lg/In.
00-277-5781 <sub>NP</sub>	7/16	1/2	7-1/2
00-274-9653 <sub>NP</sub>	1/2	9/16	8-1/2
00-274-9655 <sub>NP</sub>	9/16	5/8	9
00-274-9658 <sub>NP</sub>	3/4	7/8	12

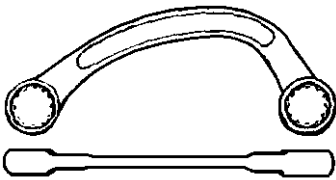
Deep, double-offset, each end. Chrome-Plated, forged Steel.



Regular length

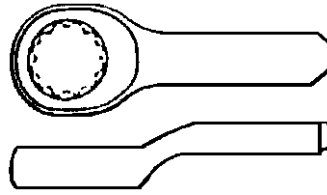
	1st End/In.	2nd End/In.	Lg/In.
00-224-3135 <sub>NP</sub>	3/8	7/16	8
00-287-4527 <sub>NP</sub>	7/16	1/2	8-5/16
00-224-3136 <sub>NP</sub>	1/2	9/16	8-9/16
00-224-3141 <sub>NP</sub>	5/8	11/16	10-5/32
00-288-9302 <sub>NP</sub>	5/8	3/4	10-9/32
00-222-1599 <sub>NP</sub>	3/4	13/16	11-3/4

Half-moon (starter wrench). Polished double heads. 12 point. Chrome-Plated, forged Steel.



	1st End/In.	2nd End/In.	Lg/In.
00-184-8631 <sub>NP</sub>	7/16	1/2	5-3/4
00-222-1596 <sub>NP</sub>	9/16	5/8	6-1/2

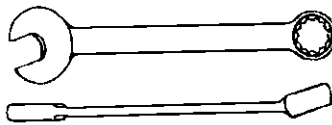
Single-head slugging wrench. One end with 12-point box, other end with slugging surface. Forged Steel.



	Size/In.	Lg/In.
00-174-1831 <sub>NP</sub>	1-1/4	6
00-174-1834 <sub>NP</sub>	1-1/2	6
00-222-1594 <sub>NP</sub>	1-5/8	7
00-222-1595 <sub>NP</sub>	1-11/16	7
00-222-1601 <sub>NP</sub>	1-7/8	7
00-224-3112 <sub>NP</sub>	2-3/8	8-7/16

## WRENCH, BOX AND OPEN END COMBINATION

Combination wrench. Box-end offset 15 degrees, 12-point (wrenches 7/16 inch and smaller may be either 6 or 12 point). Identical wrench opening size on both ends. Polished heads, Chrome Plated.



	Size/In.	Lg/In.
00-288-9997 <sub>NP</sub>	1/4	3
00-142-5357	1/4	4
00-288-9671 <sub>NP</sub>	9/32	3-9/32
00-228-9503	5/16	3-1/4
00-278-0342 <sub>NP</sub>	11/32	3-1/4
00-228-9504 <sub>NP</sub>	3/8	4-3/16
00-228-9505 <sub>NP</sub>	7/16	5
00-935-7370	7/16	6
00-228-9506 <sub>NP</sub>	1/2	5-1/4
00-228-9507 <sub>NP</sub>	9/16	5-3/4
00-935-7372	9/16	7-1/8
00-228-9508 <sub>NP</sub>	5/8	6-1/8
00-228-9509 <sub>NP</sub>	11/16	7
00-228-9510 <sub>NP</sub>	3/4	8
00-228-9511 <sub>NP</sub>	13/16	10-1/4
00-228-9512 <sub>NP</sub>	7/8	10-1/4
00-228-9513 <sub>NP</sub>	15/16	12
00-228-9514 <sub>NP</sub>	1	12-1/2
00-228-9515 <sub>NP</sub>	1-1/16	14
00-228-9516 <sub>NP</sub>	1-1/8	14-1/2
00-228-9517 <sub>NP</sub>	1-1/4	16

## WRENCH, DRAIN PLUG

Operates deck drain valves, 4510-00-273-1077. T-handle, 4-15/16 inches long, 27/64 inches square male drive-end. Galvanized Steel.

00-030-2738<sub>NP</sub>

## WRENCH, IMPACT, MANUAL

Steel overall. Offset style. Overall length, 18.000 inches nominal. Drive surface size, 0.750 inches nominal single end. Drive end shape, Square, single end internal.

00-440-8047

Steel, Chrome Plated. 5-3/8 inches long overall. Width 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4 inches. Hexagon socket: 3/16, 7/32, 1/4, 5/16, and 3/8 inches. Hexagon drive each, with extra bit. Clutch drive: 19/64 and 3/8 inch; Phillips number: 2, 3, and 4 drive, each with extra bit. Number 4 long Phillips drive with extra bit; 11/16 inch screwdriver; 1/4, 5/16, and 3/8 inch screwdrivers, each with extra bit. 3 extra roll pins. Metal storage box. Non-Spec.

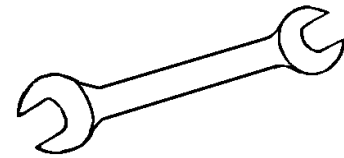


00-724-2145<sub>NP</sub>

## WRENCH, OPEN END

Fixed open-end wrenches. Forged Steel, except as noted. Wrench opening size and minimum length in inches shown below.

Double head engineer's wrench. 15 degree openings milled to close tolerance. Polished heads, Chrome or Nickel-Plated.



	Wrench-Sizes		Lg/In.
00-277-4835 <sub>NP</sub>	5/32	3/16	2-1/2
00-293-2121 <sub>NP</sub>	3/16	1/4	3
00-228-9527 <sub>NP</sub>	3/16	1/4	3
00-277-2311 <sub>NP</sub>	1/4	5/16	3
00-277-2342 <sub>NP</sub>	3/8	7/16	4-1/8
00-187-7123 <sub>NP</sub>	7/16	1/2	5
00-187-7124 <sub>NP</sub>	1/2	9/16	5-3/8
00-277-4833 <sub>NP</sub>	1/2	9/16	7-3/4
00-187-7126 <sub>NP</sub>	9/16	5/8	6
00-277-9517 <sub>NP</sub>	9/16	3/4	6
00-277-8301 <sub>NP</sub>	5/8	11/16	7
00-224-3102 <sub>NP</sub>	5/8	3/4	7
00-187-7129 <sub>NP</sub>	3/4	13/16	8
00-187-7130 <sub>NP</sub>	13/16	7/8	8-1/4
00-187-7131 <sub>NP</sub>	7/8	15/16	9
00-277-7025 <sub>NP</sub>	15/16	1	10
00-187-7134 <sub>NP</sub>	1-1/16	1-1/4	11-3/4
00-277-2694 <sub>NP</sub>	1-1/8	1-1/4	11-3/4
00-184-8438 <sub>NP</sub>	1-1/8	1-5/16	12
00-277-9818 <sub>NP</sub>	1-1/2	1-3/4	16-1/2

Nonsparking, nonmagnetic, double head engineer's wrench. 15 degree opening.

	Wrench-Sizes		Lg/In.
00-066-0242 <sub>NP</sub>	5/16	11/32	3-1/2
00-184-8548 <sub>NP</sub>	7/8	15/16	9
00-184-8549 <sub>NP</sub>	1	1-1/8	10-1/2

Double-head ignition wrenches. Chrome and Nickel-Plated forged Steel, polished heads.

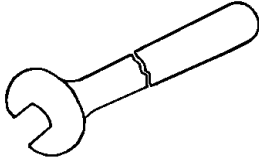
15 degree and 60 degree spearheads. 3 to 3-1/2 inches long.



## Wrench-Sizes

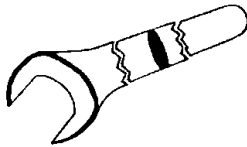
00-277-8311 <sub>NP</sub>	9/32	5/16
00-277-8313 <sub>NP</sub>	11/32	3/8

15 degree single head engineer's wrench. 1-1/2 inch and smaller wrenches with flared handles. Larger sizes with tapered handles.



	Size	Lg./In.
00-277-1258 <sub>NP</sub>	5/8	6-1/4
00-277-1254 <sub>NP</sub>	15/16	9-1/8
00-277-1247 <sub>NP</sub>	1-5/16	11-7/8

30 degree head, 6-1/4 to 6-7/8 inches long.



1/4 inch thick head

	Size
00-203-4813 <sub>NP</sub>	15/16
00-203-4811 <sub>NP</sub>	1-1/16
00-203-4810 <sub>NP</sub>	1-1/8
00-203-4808 <sub>NP</sub>	1-1/4

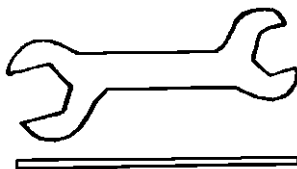
9/32 inches thick head, 7-5/8 inches long.

	Size
00-203-4807 <sub>NP</sub>	1-5/16
00-203-4806 <sub>NP</sub>	1-3/8
	Size
00-203-4804 <sub>NP</sub>	1-1/2
00-203-4802 <sub>NP</sub>	1-5/8

5/16 inches thick head, 8-1/2 inches long.

	Size
00-203-4799 <sub>NP</sub>	1-7/8
00-203-4797 <sub>NP</sub>	2

Double-headed thin Aluminum Alloy-heads 1/8 inches thick. Large head angle. 0-degrees. Small head angle 38 degrees. Wrenching surface sizes and overall length shown. With NAVORDSYSCOM Reference Number.



	Size	Lg./In.
00-488-0440 <sub>NP</sub>	3/8	5
00-488-0441 <sub>NP</sub>	1/2	5

## WRENCH, OPEN END BOX

Flare-nut wrench. Single head, modified 12-point, open end wrench opening. Chrome Plated forged Steel, polished heads.

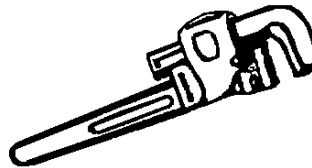


	Size	Lg./In.
00-224-3156 <sub>NP</sub>	7/16	6-1/2
00-224-3157 <sub>NP</sub>	1/2	6-7/8
00-224-3158 <sub>NP</sub>	9/16	6-7/8
00-224-3159 <sub>NP</sub>	5/8	7-1/8
00-224-3160 <sub>NP</sub>	11/16	7-1/8
00-224-3161 <sub>NP</sub>	3/4	7-1/2
00-224-3164 <sub>NP</sub>	15/16	7-3/4
00-224-3103 <sub>NP</sub>	1	7-7/8
00-224-3104 <sub>NP</sub> *	1-1/16	7-7/8
00-224-3105 <sub>NP</sub>	1-1/8	7-7/8

\* Ratcheting type.

## WRENCH, PIPE

Heavy-duty, adjustable-jaw pipe wrenches. With hardened-Steel replaceable jaw insert. Size (opened-length) and pipe size capacity range, as noted.



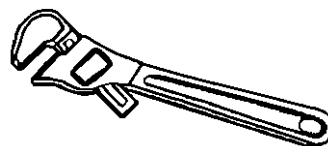
Drop-forged Steel, cast malleable Iron, or Steel.

	Size	Range
00-277-1483 <sub>NP</sub>	6	1/8 to 1/2
00-277-1484 <sub>NP</sub>	8	1/4 to 3/4
00-277-1485 <sub>NP</sub>	10	1/4 to 1
00-277-1486 <sub>NP</sub>	14	1/2 to 1-1/2
00-277-1461 <sub>NP</sub>	18	1 to 2
00-277-1462 <sub>NP</sub>	24	1-1/2 to 2-1/2
00-270-4309 <sub>NP</sub>	36	2-1/2 to 3-1/2

Forged Aluminum Alloy.

	Size	Range
00-277-1477 <sub>NP</sub>	10	1/4 to 1
00-277-1478 <sub>NP</sub>	14	1/2 to 1-1/2
00-277-1479 <sub>NP</sub>	18	1 to 2
00-277-1480 <sub>NP</sub>	24	1-1/2 to 2-1/2

Angle style adjustable-jaw pipe wrench. 25 degree jaw opening. For general purpose use, in confined quarters. Drop forged Steel.



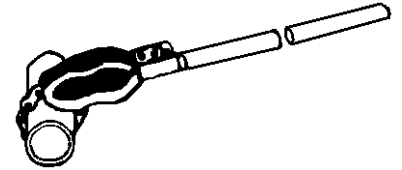
	Size	Range
00-269-7966 <sub>NP</sub>	10	1/4 to 1
00-269-7965 <sub>NP</sub>	14	1/2 to 1-1/2

All-purpose holding tool with, 19 inch chain. For plumbing, heating, and automotive work. Will not slip or mar work. Adjusts for ratcheting action.

9-1/2 inches long, 5.563 inch IPS capacity.

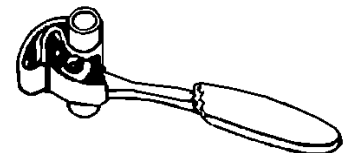
00-889-2050<sub>NP</sub>

Chain wrench for pipe only. Steel handle with double-ended reversible jaws, and flat-link chain.



	Size	Range
00-240-1411 <sub>NP</sub>	22-1/2	3/4 to 4
00-240-1410 <sub>NP</sub>	43	1 to 6

Pipe strap wrench. One piece "I" beam handle with web strap. Will not damage finish of Nickel or Chrome Plated pipes and tubing.

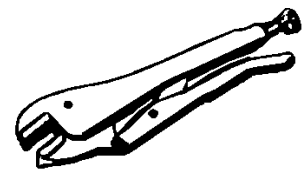


	Size	Range
00-242-3249	12	1/8 to 2
00-262-8491	18	1 to 6

## WRENCH, PLIER

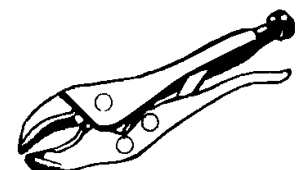
Locking plier-wrenches. Finger tip release unlocks adjustable jaws. Forged-Steel serrated jaws. Nominal size and max jaw opening (tip to tip) in inches.

Two straight jaws



	Size	Jaw Opening/In.
00-277-4243 <sub>NP</sub>	7	1-1/2
00-277-4244 <sub>NP</sub>	8-1/2	1-3/4

Curved jaw with cutter



# CLASS 5120

	Size	Jaw Opening/In.
00-965-0604 <sub>NP</sub>	5-1/2	1-1/8
00-494-1910 <sub>NP</sub>	7	1-1/2
00-494-1911 <sub>NP</sub>	8-1/2	1-7/8

## WRENCH, RATCHET

Double box-head ratchet wrenches. 6 or 12 point ratchet sockets allow short strokes in close working spaces. Cadmium, Chrome, or Nickel-Plated. Wrench opening sizes and minimum length shown below.

Reversing mechanism in heads. Turns in right or left direction.

	Wrench	Size	Lg/In.
00-831-1055 <sub>NP</sub>	1/4	5/16	3-3/4
00-831-1054 <sub>NP</sub>	3/8	7/16	5-1/4
00-831-1053 <sub>NP</sub>	1/2	9/16	6-1/2
00-831-1051 <sub>NP</sub>	5/8	3/4	7-3/4
00-831-1052 <sub>NP</sub>	11/16	7/8	8-5/8

For refrigeration and air conditioning work. 6 inches long tool with 1/4 inch square opening. 3/16 inch square opening through handle, and 1/2 inch hexagon opening. Chrome-Plated Steel.

00-221-7980<sub>NP</sub>

Steel overall straight single head. 12 point internal wrenching surface. .440 inch head thickness.

	Size	Lg/In.
00-777-2782	7/8	9

Steel overall straight single head. .312 inch head thickness. Hexagon single end internal wrenching surface. Reversible ratchet.

	Size	Lg/In.
01-070-9208	1-1/4	16

Thin head ratchet wrenches. Reversing mechanism in handle. Malleable Iron and Steel. Black Oxide and phosphate, and lacquered finish. Square socket size and nominal length, in inches.



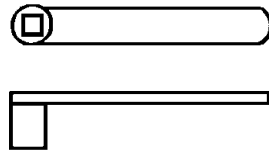
	Size	Lg/In.
00-288-9999 <sub>NP</sub>	3/8	10
00-289-0000 <sub>NP</sub>	1/2	10
01-160-1311 <sub>NP</sub>	5/8	13

## WRENCH, SOCKET

Single socket offset-square single end. Internal wrenching surface shape. Copper Alloy, 1-3/8 inch overall length. .231 inch offset height. .079 wrenching size.

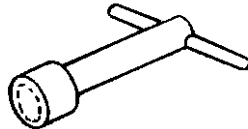
	C to C/In.	Pin Dia/In.	Lg/In.
00-288-8746 <sub>NP</sub>	2	3/16	6-3/8
00-293-0798 <sub>NP</sub>	3	1/4	8-1/4
00-264-3777 <sub>NP</sub>	4	5/16	10-3/8

Adjustable hook wrench, with fixed pivot-point.



00-133-2144<sub>NP</sub>

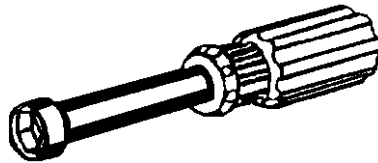
Single socket wrench with removable "T" handle. Socket size, shape, and length in inches, as noted.



	Size	Lg/In.
00-227-7379 <sub>NP</sub>	25/64 hex	4-1/4
00-227-7382 <sub>NP</sub>	1/2 hex	5-1/4
00-227-7393 <sub>NP</sub>	1-1/64 hex	7-3/4

Single-socket spinners (nut drivers). Plastic screwdriver handle. Chrome-Plated Steel shaft with hexagonal (6-point) socket opening. Size and minimum overall length noted below.

Conventional size with plain grip.



	Size	Lg/In.
00-224-2599	3/16	6
00-277-1801	7/32	6
00-241-3188	1/4	6
00-224-2596	5/16	6
00-293-0796	11/32	6
00-596-1263	3/8	6-1/2
00-222-1499	7/16	7
00-294-9514	9/16	7

## WRENCH, SPANNER

Adjustable face pin spanner wrench. Maximum capacity (Center to Center). Pin diameter and overall length as noted.



Circle diameter range and hook thickness as noted.

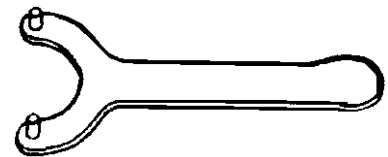


	Range	Thk/In.
00-288-6468 <sub>NP</sub>	3/4 to 2	11/32
00-293-0406 <sub>NP</sub>	1-1/4 to 3	3/16
00-277-9075 <sub>NP</sub>	1-1/4 to 3	13/32
00-277-9076 <sub>NP</sub>	2 to 4-3/4	15/32
00-277-9077 <sub>NP</sub>	4-1/2 to 6-1/4	15/32

Nonsparking, nonmagnetic, adjustable hook wrench. 2-1/2 to 6 inch circle diameter range. 9/16 inches thick hook, 12 inches long. Beryllium-Copper.

00-494-1989<sub>NP</sub> For 1-1/2 to 4 inch hose coupling

Nonadjustable face, pin spanner wrench. Single working end. 180 degree angle between pins. Pin diameter and overall length shown in inches.



	C to C/In.	Pin Dia/In.	Lg/In.
00-152-2437 <sub>NP</sub> *	15/16	1/8	3-3/16

\* Non Spec Item.

Nonadjustable, Pin-type spanner wrench.



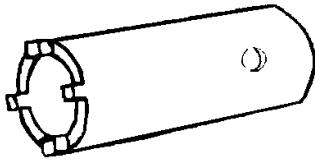
	C to C/In.	Pin Dia/In.	Lg/In.
00-288-8743 <sub>NP</sub>	1-1/2	7/32	5
00-277-9078 <sub>NP</sub>	3	5/16	8

Nonadjustable, iron pin type spanner wrench. Circle diameter, pin diameter, and overall length noted in inches.



	C to C/In.	Pin Dia/In.	Lg/In.
00-595-9183 <sub>NP</sub>	2-1/2	23/64	10-3/4

Tubular-type with 3/4 inch diameter handle hole. Black-lacquered Steel tubing. 4-15/16 inches long. 1.660 inch outside diameter, 1-3/8 inch opening diameter. Working end with 4-lugs, spaced 90 degrees apart on center. Lug widths 5/32 inches.

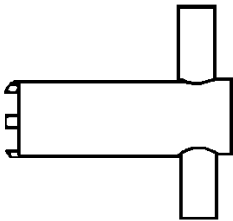


00-152-2418<sub>NP</sub>

Tubular-type with removable handle. Steel tubing 2-1/2 inches long, opening diameter 43/64 inches. Lug width 1/8 inches. Handle hole diameter 1/4 minimum through 3/8 maximum.

00-469-1856<sub>NP</sub>

Tubular lug-type. Steel composition with surface treatment. 2-1/2 inches long by 1-7/8 inches wide. 1-1/2 inch opening diameter, 90 degree angle between. 5/32 inch lugs. Handle is 8 inches long by 3/8 inches in diameter.



00-596-1353<sub>NP</sub>

Tubular-type with integral drive handle. Chrome Nickel plated Steel tubing. 2-1/2 inches long. Working end with 4-lugs spaced 90 degrees apart on center.

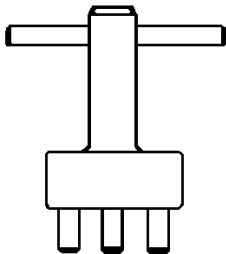
1/8 inch lug width, 7/64 inch lug length. 1-1/8 inch outside diameter, 7/8 inch inside diameter. 5 inch long handle.

00-596-1355<sub>NP</sub>

5/32 inch lug width, 1/8 inch lug length. 1-5/8 inch outside diameter. 6 inch long handle.

00-596-1354<sub>NP</sub>

Tubular pin-type. With 90 degree angle between 5/16 inch diameter pins on a 3.400 inch circle. Handle is 13-3/4 inches long.



00-212-3862<sub>NP</sub>

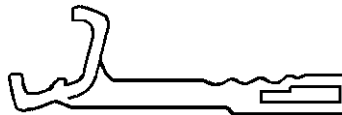
Universal hose coupling spanner wrench. For use on pin-lug, guard-lug, rocker-lug, and other type couplings. For 1 to 3 inch hoses. Steel or Aluminum-alloy. 1200 inches/pound torque

capacity. 8 ounce weight. 11 inches long overall.



00-293-1602<sub>NP</sub>

Universal hose coupling spanner wrench. Use on pin-lug, guard-lug, rocker-lug, Navy slot, and other couplings. For hoses 1-1/2 to 3-1/2 inches in diameter, 11 inch overall length.



00-018-1519<sub>NP</sub>

## WRENCH, SPUD CLOSET, INTERNAL, ADJUSTABLE

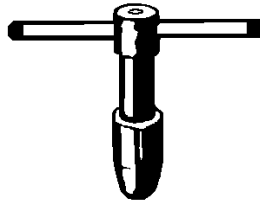
Steel, Cadmium Plated. Fits all sizes of closet spuds, sink strainers, and bath shoes.

00-511-1432<sub>NP</sub>

## WRENCH, TAP AND REAMER

Adjustable tap and reamer wrenches. Hardened Steel jaws. Size and tap-holding capacity as shown below.

Solid body with sliding T-handle.

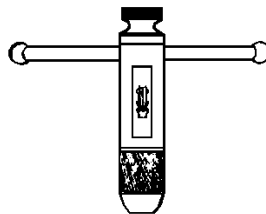


Size	Range
1	0 to 1/4
2	1/4 to 1/2

00-277-4069<sub>NP</sub>

00-289-0534<sub>NP</sub>

Ratcheting body with sliding "T" handle.



Size	Range
1	0 to 1/4

00-517-5347<sub>NP</sub>

Straight type, with two handles. One handle: size 0 wrench with knurled adjusting screw and 3/32 inch diameter through hole.



Size	Range
0	0 to 1/4
1	1/16 to 1/4
4	8 to 3/4
5	1/4 to 1-1/8

00-357-9168<sub>NP</sub>

00-277-4063<sub>NP</sub>

00-289-0539<sub>NP</sub>

00-289-0537<sub>NP</sub>

## WRENCH, TORCH AND REGULATOR

8-5/8 inches long torch and regulator wrench. 6 way wrench with boss or opening for acetylene cylinder valve. One end with 7/16, 11/16, and 1 inch openings; other end with 3/4, 7/8, and 1-1/8 inch wrench openings.

00-494-1929<sub>NP</sub>

## WRENCH, TORQUE

Steel overall with Chromium surface.

Deflecting frame end drive style. Overall length, 12.000 inches maximum. Drive surface size, 0.375 inches nominal single end square single end external. Torque capacity, 0.0 inch-pounds minimum and 200.0 inch-pounds maximum. Plate with pointer indicator with feel impulse signal. Torque scale graduation, 10.00 inch-pounds.

00-011-5860

Micrometer end drive style. Overall length, 9.500 inches nominal. Drive surface size, 0.250 inches nominal, single end. Square single end external shape. Torque capacity, 30.0 inch-pounds minimum and 150.0 inch-pounds maximum. Micrometer indicating mechanism. Audible signal method. Torque scale graduation, 2.0 inch-pounds. SPECIAL FEATURES: Ratchet head.

00-001-3733

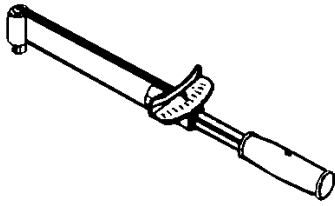
Overall length, 1.750 inches nominal. Torque capacity, 8.0 inch-pounds nominal. Torque indicating mechanism, preset-fixed. SPECIAL FEATURES: Open end wrench permanently pinned to body. Wrench opening 5/16 inches.

00-004-9981

Torque wrench handles with square drive-tang. Measures or applies torque to bolts, nuts, and cap screws in mechanical assemblies. Chrome-Plated finish. Metal carrying case included. Torque capacity range and drive size shown below.

Deflecting beam with direct-read indicator plate. Plain head end drive. Measures in both directions.

# CLASS 5120

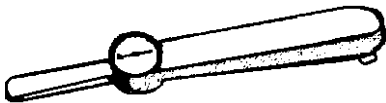


	In./lbs	Size
00-618-4433	0-10	1/4
00-900-1283	0-120	1/4
00-585-7706	0-120	3/8
00-853-4538	0-200	3/8
00-247-2536	0-300	1/2

Ft/pounds      Size

00-247-2540	0-150	1/2
-------------	-------	-----

Rigid case with direct-reading indicator dial. Rigid frame end drive. Measures in both directions.



	In./lbs	Size
00-839-8139	0-30	1/4
00-585-8434	0-75	1/4
00-230-6380	0-150	3/8
00-776-1841	0-300	3/8
00-288-8865	0-600	3/8

Ft/lbs      Size

00-242-3264	0-50	3/8
00-113-4959	0-100	1/2
00-165-3930*	0-100	1/2
00-640-6364	0-175	1/2
00-640-6365	0-250	1/2
00-221-7983	0-600	3/4
00-555-1521	0-1000	1

\* Visual signal.

Rigid case with indicating dial. Ratchet reversible head R-H torquing. With memory indicator.

	In./lbs	Size
00-117-3428	0-75	1/4
00-228-0517	0-75	3/8
01-075-2597	0-150	3/8

Rigid frame with micrometer-adjustable presetting and audible (slip-clutch) signal. End drive, R-H torque measuring.



Plain head, nonratcheting.

	In./lbs	Size
01-034-5033*	100-1000	3/8

\* Audible signal.

Reversible ratchet head.

In./lbs      Size

01-092-3278*	30-200	3/8
--------------	--------	-----

\* Audible signal.

Screwdriver type. Adjustable and nonmagnetic. Consists of a handle with a socket and a device for automatic release when preset torque is reached. Torque is indicated in RH and LH directions. Dial is graduated in 2 inch/pound increments.

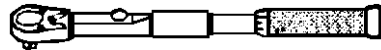
In./lbs      Size

00-923-9620*	5-30	1/4
00-021-2041	5-36	1/4
00-943-0941	1-100	1/4

\* 1 inch/pound increments.

Non-Spec type

Micrometer end drive type. 6 inches long overall. Preset fixed torque indicating mechanism. Audible signal. Furnished with: 1 open end, head-size 1/4 inch hexagon; 1 open end, head size 5/16 inch hexagon.



In./lbs      Size

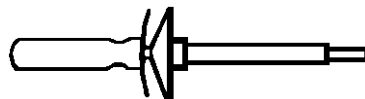
00-169-5776 <sub>NP</sub>	8	5/16
---------------------------	---	------

Micrometer end drive type. 11-1/2 inches long overall. Preset-fixed torque indicating mechanism. Audible signal. Reversible ratchet. Insulated handle.

In./lbs      Size

01-036-8942	525	3/8
-------------	-----	-----

Screwdriver type. 8-1/4 inches long overall. Square single end internal drive end shape. Visual dial indicating mechanism. 1 inch/pound graduations. With: Number 2 Phillips bit, 1/4 inch flat tip bit, and 1/4 inch square male adapter.



In./lbs      Size

00-568-4742	0-25	1/4
-------------	------	-----

## WRENCH, WHEEL STUD NUT, GEARED SOCKET

Steel overall. Socket within socket style. Any acceptable overall length. Wrenching surface size, 0.812 inches minimum and 1.500 inches maximum first end. Wrenching surface shape, Square, first end internal and hexagon second end internal. SPECIAL FEATURES: Socket within a socket; 0.750 inch diameter by 20.500 inch minimum length. Solid bar handle. 1.125 inch diameter by 34.500 inch minimum length tubular bar handle.

00-378-4411

## WRENCH KIT

67 components. Industrial.

00-087-1022

## WRENCH SET, BOX

5-Piece set. Opening size: 3/8 by 7/16, 1/2 by 9/16, 5/8 by 11/16, 3/4 by 7/8, 15/16 by 1. Fabric roll.

00-293-3453

8 components. Contains 1 each Chrome plated; 12 point; deep offset; Metric sizes 6x7, 8x9, 9x10, 11x12, 13x14, 15x16, 17x19 and 18x20MM. Furnished items: Roll. SPECIAL FEATURES: Short lengths.

00-103-9782

## WRENCH SET, COMBINATION BOX AND OPEN END

Combination 15 degree offset box-end and open-end wrenches in rolls. Identical wrench opening size each end. 12-point box (wrenches 7/16 inches and smaller may be 6 to 12 point). Chrome or Nickel-Plated forged Steel, Plastic, or fiber rolls.

9-Piece set. Chrome Plated, 6-Point box opening, 15 degree offset. Sizes: 1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, and 3/8 inches.

00-148-9488

9-Piece set. Sizes and lengths noted in millimeters: 10 by 132.7, 11 by 136.3, 12 by 139.9, 13 by 145.5, 14 by 151.6, 15 by 155.3, 16 by 160, 17 by 162.3, and 18 by 170.6.

00-935-7333

12-Piece set. Sizes: 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch. Lengths from 3-1/4 to 12-1/2 inches.

00-148-7917

Non-Spec type

Combination 15 degree offset box-end. 12 point and open-end wrenches in rolls with individual pockets.

6-Piece set Sizes: 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4 inches. Lengths from 5 to 8 inches.

00-148-9489

9 Piece set. Sizes and length noted in inches: 5/16 by 5-7/8, 11/32 by 6-1/4, 3/8 by 6-9/16, 7/16 by 7-3/32, 1/2 by 7-21/32, 9/16 by 8-5/16, 5/8 by 8-13/16, 11/16 by 9-1/4, 3/4 by 9-3/4.

00-935-7310

13 Piece set. 6 point flank drive. Sizes: 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16,

7/8, 15/16, and 1 inch wrenches.

01-161-1915

## WRENCH SET, COMBINATION BOX AND OPEN END BOX

11 Wrenches. For tube-fittings and stuffing gland nuts. Non-distortion box and 30 degree angle open-end box heads with 12-point openings. Identical sizes each end. Chrome or Cadmium Plated Steel, polished heads. Fabric roll included. Sizes in inches: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 7/8, 15/16, 1, and 1-1/8. Lengths 5-1/4 to 12-3/4 inches.

00-895-9566

## WRENCH SET, CROWFOOT, RATCHETING

29 piece set. Includes metal box with 2 hinged handles of malleable Iron and Steel. The following pieces are Steel: 5 multipurpose open ratchet heads; 20 sockets, Size: 1-1/32, 1-1/18, 1-1/4, 1-3/8, 1-7/16, 1-21/32, 1-25/32, 1-7/8, 1-15/16, 2-3/16, 2-1/4, 2-11/32, 2-15/32, 2-13/16, 2-31/32, 3-3/32, 3-9/32, 3-7/16, 3-9/16, and 3-3/4 inches. 3/8 and 1/2 inch square drive with standard wall, octagonal sockets.

00-293-0013<sub>NP</sub>

## WRENCH SET, OPEN END, FIXED

Fixed open-end wrenches in rolls. Polished double heads, Chrome, or Nickel-Plated Steel. Fabric or Plastic roll included.

Engineer's wrenches, 15 degree heads.

5 Piece set. 1st and 2nd end and length in inches. Sizes: 3/16 by 7/32 by 2-1/4, 1/4 by 9/32 by 3, 5/16 by 11/32 by 3-5/8, 3/8 by 7/16 by 4-1/8, and 13/32 by 15/32 by 4-1/8.

00-449-8128

5 Piece set. With single-head offset jewelers screwdriver type handle-wrenches, interchangeable. Sizes: 5/64, 3/32, 7/64, 1/8, and 5/32. With case. Non-Spec item.

00-829-7691

Ignition wrench sets.

8 Piece set. Ignition wrenches, double spear head. Two wrenches for each size. One 15 degrees by 60 degrees. The other 60 degrees by 15 degrees. Sizes: 13/16 by 15/64, 15/64 by 13/64, 7/32 by 1/4, 1/4 by 7/32, 9/32 by 5/16, 5/16 by 9/32, 11/32 by 3/8, 3/8 by 11/32 inches. Lengths 3 to 3-3/4 inches. Bright Chrome Plate. Suitable for hexagonal and square-headed bolts and nuts.

00-962-7580

6 Piece METRIC open end set. Drop forged Alloy Steel. Chrome-Plated, polished 15 degree

heads. Set includes sizes: 6x8, 7x9, 10x11, 12x14, 13x15, and 17x19 MM in Plastic roll.

00-906-0168

## WRENCH SET, RATCHET

11 nonreversible ratchet wrenches in vinyl roll. Heavy-duty Chrome-Vanadium forged Steel jaws, Chrome-Plated Steel handle. Set includes one each of the following sizes: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch.

00-474-7227

## WRENCH SET, SOCKET

Mechanics socket wrench sets in metal cases. Chrome or Nickel-Plated components in enameled sheet-Steel partitioned boxes.

1/4 inch SQUARE DRIVE

13 Piece set. Includes the following:  
 (4) regular length 6-point (hex) sockets. Sizes: 3/16, 7/32, 1/4, and 9/32  
 (5) regular length 12-point sockets. Sizes: 5/16, 11/32, 3/8, 7/16, and 1/2  
 (1) reversible ratchet handle, 4-1/2 inches long.  
 (1) Spin type speeder handle, 6 inches long.  
 (1) universal joint  
 (1) solid extension bar, 2 inches long.

00-081-2305

14 Piece set. Includes the following:  
 (7) Socket wrenches (6 point) 6, 7, 8, 9, 10, 1, 1 and 12 MM  
 (4) Handles  
 (a.) 1/4 inch square drive reversible ratchet  
 (b) hinged spreader  
 (c) screwdriver grip  
 (d) tee  
 (1) Universal joint  
 (1) Bar extension, 2 inch.  
 (1) Bar extension, 6 inch.

01-067-5011

Nonmagnetic, nonsparking socket wrench set. 10 components in fitted case include:

(4) 6-point sockets, 3/16, 7/32, 1/4, and 9/32  
 (4) 12-point sockets, 5/16, 11/32, 3/8, and 7/16  
 (1) 4 inch reversible ratchet handle and a 4 inch extension bar. All 1/4 inch square drive.

00-542-2428

3/8 INCH SQUARE DRIVE

8 Piece set. Universal joint hex sockets. Sizes: 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4.

00-935-7309<sub>NP</sub>

13 Piece set. Single hexagon (6-point). Chrome Plated. Socket Sizes 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1. Fiberboard box.

00-247-0748<sub>NP</sub>

20 Piece set. Includes the following:  
 (1) hinged handle, 8-1/2 inches long.  
 (1) reversible ratchet handle, 6 inches long.  
 (1) brace type speeder handle, 16 inches long.  
 (1) universal joint  
 (1) sliding "T" handle, 7 inches long.  
 (3) solid extension bars 3, 6, and 12 inches long.  
 (1) 12-point, 2-1/2 inch long socket.  
 (11) standard, 12-point sockets in millimeters. Sizes: 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

00-935-7315<sub>NP</sub>

23 Piece set. Includes the following:  
 (1) hinged handle, 8-1/2 inches long.  
 (1) reversible ratchet handle, 6 inches long.  
 (1) brace-type speeder handle, 16 inches long.  
 (1) universal joint  
 (2) universal joint sockets, 1/2 and 9/16.  
 (2) solid extension bars, 5 and 12 inches long.  
 (8) regular 12-point sockets: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, and 13/16  
 (7) deep 12-point sockets: 1/2, 9/16, 19/32, 5/8, 11/16, 3/4, and 13/16 inch sizes

00-322-6231<sub>NP</sub>

1/2 INCH SQUARE DRIVE

20 Piece set. Includes the following:  
 (13) regular 12-Point sockets. Sizes: 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, and 1-1/4  
 (3) solid extension bars: 2, 5, and 10 inches long  
 (2) hinged handles, 9 and 14-1/2 inches long.  
 (1) reversible ratchet handle, 9 inches long.  
 (1) universal joint

00-081-2307<sub>NP</sub>

3/4 IN. SQUARE DRIVE

21 Piece Set. Includes the following:  
 (1) hinged handle  
 (1) ratchet handle  
 (1) sliding "T" handle  
 (1) universal joint  
 (3) solid extensions 3, 8, and 16 inches long  
 (14) double hex regular length sockets. Sizes in inches: 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-1/4, 1-5/16, 1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-13/16, 1-7/8, and 2.

00-204-1999<sub>NP</sub>

1 INCH SQUARE DRIVE

27 Piece set. Includes the following:  
 (1) hinged handle  
 (1) ratchet handle  
 (1) sliding "T" handle  
 (2) extensions, 8 and 17 inches long  
 (22) double hex regular length sockets. Sizes in inches: 1-1/2, 1-5/8, 1-11/16, 1-3/4, 1-13/16, 1-7/8, 1-15/16, 2, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16, 2-1/2, 2-9/16, 2-5/8, 2-3/4, 2-13/16, 2-15/16, 3, and 3-1/8.

00-081-2309<sub>NP</sub>

SPINNER TYPE (nut-drivers)

7 Piece nut-driver set in cotton duck roll. Conventional sizes (6 to 7 inches long). Plastic screwdriver type handle. Chrome Plated Steel shaft with 6 point (hex) socket opening. Set

# CLASS 5120

includes (sizes in inches): 3/16, 1/4, 5/16, 11/32, 3/8, 7/16, and 1/2.

00-540-6755

9 piece nut-driver set in cotton-duck roll. Conventional size (6 to 7 inches long). Plastic screwdriver handle. Chrome-Plated Steel shaft with 6 point hexagon socket opening. Set includes sizes: 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, and 9/16 inches.

00-542-5799

11 piece nut-driver set in case. Consists of a Black torque amplifier handle and ten adapters. Color coded to size with hexagon socket opening. Size in inches: Blue 3/32, Red 1/8, Amber 5/32, Black 3/16, Brown 7/32, Red 1/4, Orange 9/32, Amber 5/16, Green 11/32, and Blue 3/8.

00-089-3663

13 piece nut-driver set in Plastic case. With hexagon opening. Width Across Flats sizes: 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, and 3/8 inches. Phillips screwdriver bits numbers 1 and 2. Extension blade 4 inches long, and regular handle 4 inches long.

00-165-4098

## WRENCH SET, SOCKET HEAD SCREW SOCKET WRENCH ATTACHMENT

13 piece set. Includes the following:

- (1) reversible ratchet handle, 1/4 inch square drive, 4 inches long.
- (1) reversible ratchet handle, 1/2 inches square drive, 12 inches long.
- (1) sliding "T" handle, 3/8 inch square drive, 7 inches long.
- (1) short hexagon bit, with 1/4 inch square female drive, Size 5/32.
- (1) short hexagon bit, with 1/4 inch square female drive, Size 7/32.
- (2) 1/4 inch square female drive sockets. Sizes: 1/8 and 3/16 inches.
- (2) 3/8 inch square female drive sockets. Sizes: 1/4 and 5/16 inches.
- (4) 1/2 inch square female drive sockets. Sizes: 3/8, 1/2, 9/16, and 5/8 inches.

00-752-9008

## CLASS 5130 HAND TOOLS, POWER DRIVEN

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### CUTTER BUNDLE, SCALING AND SHIPPING TOOL

Rebuildable, 3 inch outside diameter. 0.5 inch square mounting spindle. 2.344 inches long. 2 Bundles per package.

00-287-5199

### DRILL-DRIVER, ELECTRIC, PORTABLE

DC current. Voltage rating, 12.000 volts nominal. No load speed in RPM, 1500.0 maximum. Straight drive. Keyless jaw chuck. Variable speed. Handle style, Pistol grip. Size, 0.375 inches nominal. Includes two batteries, battery charger, screwdriver bit and case cordless and reversible. SPECIAL FEATURES: Two speed ranges 0 to 450/0 to 1500 RPM. Adjustable clutch, spindle lock.

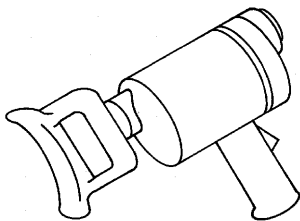
01-363-2559

DC current. 18.000 volts nominal. No load speed in RPM, 2000.0 maximum. Straight drive. Keyless jaw chuck. Variable speed. Torque capacity, 400.0 inch-pounds minimum. Clutch setting quantity, 20. Pistol grip handle, 0.500 inches nominal. Includes two batteries (2 AMP hour minimum), battery charger, screwdriver bit and plastic case cordless and reversible. Two speed settings minimum, 20 clutch settings minimum.

01-444-4662

### DRILL, ELECTRIC, PORTABLE

AC or DC Current, 115.0 volts nominal voltage rating, 25.0 hertz minimum and 60.0 hertz maximum frequency rating. Single phase. Drive end keyed jaw chuck, No Load Speed in RPMs 650.0 nominal. Straight drive, 3-prong plug connector. Handle style AR3 combination breastplate and spade end handle removable type and side handle. Size 0.500 inches nominal, heavy duty rating.



00-293-1849

### ETCHER, ELECTRIC

Vibrator type, adjustable stroke length. Furnished with 6 Alloy Steel etching points. 2 with Diamond tips and 4 with Tungston Carbide tips. 60 cycle, single phase 120 Volt 3 type.

00-596-8404

### GRINDER, PNEUMATIC, HORIZONTAL

Drive end collet chuck. No load speed in RPMs 20000.0 nominal. Straight handle. Measurements in inches nominal below.

	Wheel Size/In.	Wheel W/In.	Wheel Dia/In.
00-293-2797	0.250	0.750	1.500

### GUN, RIVET PIN

0.437 inch stroke, minimum, pulling heads for installing 1/4, 5/16, 3/8 inch huck oversize structural blind rivets. 1/4 inch blind bolts; 1/4, 5/16 inch blind lockbolts; various NAS Aircraft lockbolts. Nose assembly 3 sizes. Case metal, holds 9 nose assemblies minimum and tool.

00-596-4506

### HAMMER, ROTARY, ELECTRIC, PORTABLE

AC current. 120.000 volts nominal. Frequency rating, 60.0 Hertz nominal. Single phase. Alternating current rating in AMPS, 5.5. No load speed in RPM 900.0 maximum. Variable speed. SDS drive. SPECIAL FEATURES: D-handle, 0 to 5500 maximum BPM. 1 inch maximum solid bit capacity. 4 inch maximum core bit capacity. Hammer with rotation and hammer only operation modes. Provided with double insulation or 3-wire grounded plug. May be supplied as reversing or non-reversing. Includes side handle, depth rod and case.

00-138-5552

### ROTARY TOOL KIT, ELECTRIC

13 components. Contains straight handle rotary tool (120VAC, 60 HZ, 5000 to 35000 RPM variable speed; 1/8 inch collet) and 10 accessories, includes 5/8 inch cylinder wheel (1), screwpoint mandrel (1) internal threaded mandrel (1), 1/2 inch diameter sanding drum (1), 5/16 inch diameter cutting wheels (2), 1/2 inch diameter felt polishing wheels (2), 1/8 inch diameter drill bit (1), and 7/8 inch diameter polishing wheel (1), collet wrench (1) and Plastic case.

01-014-6856

### ROUTER, ELECTRIC, PORTABLE

AC current. 115.0 Volts minimum and 120.0 Volts maximum. 60.0 Hertz nominal. Single phase. Electromagnetic interference suppression provided. Includes fungus resistant treatment. Horsepower rating, 1.000. Collet chuck drive end. Capacity rating, 0.250 inches nominal. No load speed in RPM, 26000.0 maximum. ACCESSORIES: 2 hand grips, Bit, template guide, handbook and 2 collet wrenches.

00-990-4450

### SANDER, DISK, ELECTRIC, PORTABLE

Pad diameter, 7.000 inches nominal. Electric motor. AC or DC. 115.0 Volts. Heavy duty. SPECIAL FEATURES: Backing pad not included. Rated 12 AMPS, 3800 to 6000 PRM no-load speed. Converts to a grinder with use of

# CLASS 5130

proper accessories and wheel guard (not included).

00-596-9728

## SANDER, DISK, PNEUMATIC, PORTABLE

Vertical drive axis to work surface relationship. Auxiliary side handle not included. Safety throttle included.

	Sanding Pad Max. Dia./In.	No Load Speed Rating in RPM
00-204-0623	6.000	7000.0

Right angle drive axis to work surface relationship. Auxiliary side handle not included. Safety throttle not included.

	Sanding Pad Max. Dia./In.	No Load Speed Rating in RPM
00-340-0719	2.000	20000.0

Right angle drive axis to work surface relationship. Auxiliary side handle included. Safety throttle not included. Lever-type throttle, 0.75 horsepower minimum.

	Sanding Pad Max. Dia./In.	No Load Speed Rating in RPM
00-596-1176	7.000	6000.0

## SANDER-GRINDER, DISK, PNEUMATIC, PORTABLE

Right angle. 3 inch diameter disk capacity 1/2 inch Carbide bur, 1 inch diameter mounted wheel capacity, 12000 RPM. Lever throttle, 1/4 inch collet, rear exhaust, 1/4 or 1/8 inch NPT air inlet. 5/16 inch hose required. 7-1/8 inch maximum overall length.

00-900-9514

## SAW, CIRCULAR, GASOLINE, PORTABLE

Air cooled single cylinder 2-cycle engine. 12 inch minimum diameter. Abrasive wheel capacity. 4.4 cubic inches. (72.4 CC). Minimum engine displacement. 4.7 minimum brake HP, 6300 maximum RPM. Non-tip base stand. Adjustable blade guard. Includes maximum 14 inch diameter reinforced Steel cutting abrasive wheel. Maximum 14 inch diameter abrasive wheel for cutting non-Ferrous metals such as Aluminum. 1 gallon safety can. Helmet head and hearing protection system. Spare drive belt, spare air filter and 1/4 pint bottles of the manufacturer's recommended SAE approved 2-cycle engine oil. Weighs 31.000 pounds.

00-134-1207

## SAW, CIRCULAR, PORTABLE, ELECTRIC

Rotational speed in RPM, 38.00. AC or DC current. 120.0 Volts nominal. 60.0 Hertz nominal. Single phase. Electromagnetic interference suppression provided. Motor armature axis position parallel to saw blade

spindle axis. Vertical cut depth, 3.375 inches. Plug connector type, 3-prong. Includes carrying case. SPECIAL FEATURES: Rear D-handle, 10-1/4 inch blade capacity. 15 AMP minimum. 2-1/4 inch minimum cut depth at 45 degrees. 5/8 inch arbor electric brake.

00-889-8991

## SAW, JIG, ELECTRIC, PORTABLE

AC current. 120.0 Volts nominal. 60.0 Hertz nominal. Single phase. Alternating current in AMPS, 4.0. Stroke length, 1.000 inches minimum. Sawing speed in strokes per minute, 3100 maximum. FEATURES: Variable speed and double insulated D-handle. Lock-on switch uses universal shank blades. Includes 2 metal cutting and 2 wood cutting blades; wrench for show adjustment and blade changes.

00-889-7745

## SAW, RECIPROCATING, PORTABLE, ELECTRIC

AC or DC current. 120.0 Volts nominal. 60.0 Hertz nominal. Single phase. Stroke length, 0.438 inches minimum. Sawing speed in strokes per minute 1600 minimum and 2400 maximum. FEATURES: Variable speed, includes case, EMI suppression provided.

00-720-0654

## SCALER, PNEUMATIC, PORTABLE

Needle type, 3800 strokes per minute. 3.5 CFM air consumption. 85-113 PSI working pressure. 3.8 inch threaded hose connection supplied with 1 set of 3MM needles.

01-317-2453

## WRENCH, IMPACT, PNEUMATIC

Male spindle drive end type, square drive end shape, straight drive. Pistol grip handle.

	Size Nom/In.	Max. Thd Dia/In.
00-234-4879	0.375	0.250
00-889-2134	0.500	0.375
00-184-1427	0.750	0.750

## WRENCH SET, SOCKET

12 components. Contains 1 each industrial finish; 6 point 1/2 inch female square drive. Standard length sockets, fractional sizes 9.16, 5.8, 11.16, 3/4, 13/16, 7/8, 15/16, 1 and 1-1/16 inch; 5 and 10 inch extensions. Universal joint; impact type metal box.

00-833-6118



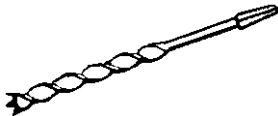
## CLASS 5133

### DRILL BITS, COUNTERBORES, AND COUNTERSINKS: HAND AND MACHINE

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

#### BIT, AUGER

Wood-boring auger bit. Tapered square shank fits any standard brace. Solid center, single-twist spiral. Spurred cutting-lips with screw-point. Tool Steel, polished finish.



	Dia/In.	Lg/In.
00-293-2901	1/4	7-1/2
00-293-2902	3/8	7-3/4
00-293-2900	1/2	8
00-293-2898	5/8	8-1/4
00-293-2905	3/4	8-1/2
00-293-2907	1	9

#### BIT, CENTER

Power wood-boring center bits. High-speed Steel bits with flat-head blade and brad-point. 1/4 inch flattened round shank fits power drills or drill presses. 6-1/2 inches long overall.

	Bit Size/In.
00-865-4221	3/8
00-865-4222	1/2
00-865-4223	9/16
00-865-4224	5/8
00-865-4225	11/16
00-865-4226	3/4
00-865-4228	7/8
00-865-4229	1

#### BIT, EXPANSIVE

Screw or gear-adjusting expansive bit with 2-cutters. Tapered-square shank fits any hand brace. Cutters graduated with 1/32 inch settings. Tempered tool Steel, polished finish. Hole size capacity as noted.



Cuts

00-243-6912	5/8 to 1-3/4 in. holes
00-223-4987	7/8 to 3 in. holes

#### BIT SET, AUGER

Sets of the same type of auger bits, listed are contained in flexible roll of canvas. Plastic or artificial leather with tie tape, or buckle to

facilitate secure fastening. Individual pocket for each bit.

7 piece set in roll. Included sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch diameters.

00-293-2396

14 piece set in roll. Includes 13 auger bit sizes: 1/4 to 1 inch, in 1/16th inch increments plus one expansive bit. 7/8 to 3 inch hole cutting capacity.

00-595-8202

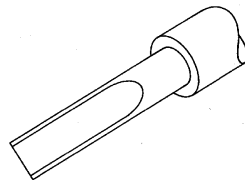
#### BIT SET, CENTER

6 piece Steel, flat round shank, centering bits. Flat head machine with brad point cutting ends. Bit cutting diameters range from 3/8 to 1 inch, in 1/8 inch increments. 1/4 inch Shank diameter.

00-441-3991

#### BIT, FORSTNER

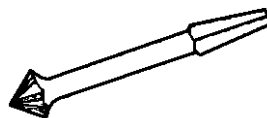
1/2 inch Steel, flat round shank, with circular rim cutting end. 5 inches long.



	Dia/In.
00-142-4962	1/2
00-142-4972	1-1/8

#### COUNTERSINK

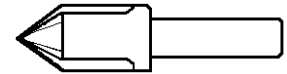
Bistock-shank. Rose pattern countersink bit. Fits any standard brace. Designed for wood. Carbon Steel bit cuts 82 degree countersink. Nominal length 4 inches.



	Dia/In.
00-247-1253	3/4

Straight-shank, center reamer/countersink. For re-centering lathe work and screw head counter-sinking. High-Speed Steel bit cuts

metals. About 2 to 2-1/2 inches long overall. Included angle and body diameter size indicated.



1/4 inch Shank Diameter

Straight Flute, pointed.

	Deg	Dia/In.
00-255-4060	45	3/8
00-239-0785	60	3/8
00-293-3018	60	1/2
00-239-0786	82	3/8
00-293-3019	80	1/2
00-293-1902	100	3/8
00-255-4068	120	3/8

Spiral Flute, point end.

	Deg	Dia/In.
00-243-2308	82	3/8
00-243-2309	100	3/8

3/8 inch Shank Diameter

	Deg	Dia/In.
00-243-2326	60	1/2
00-243-2327	82	1/2
00-995-1870	100	1/2

Straight Flute, Blunt end.

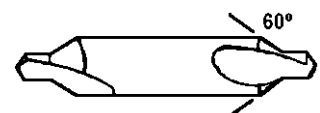
Integral pilot, 7/16 inch body diameter.

1/4 inch Shank Diameter

	Deg	Point Dia/In.
00-540-6691	100	1/8
00-540-6690	100	5/32

#### COUNTERSINK AND DRILL SET

Plain, combined countersink and drill set, 5 components. High speed Steel. Plain-type center drill, double end cutter, 60 degree included angle.



Size No.	Drill Dia/In.	Body Dia/In.	O/A Lg/In.
1	3/64	1/8	1-1/4

# CLASS 5133

Size No.	Drill Dia./In.	Body Dia./In.	O/A Lg./In.
2	5/64	3/16	1-7/8
3	7/64	1/4	2
4	1/8	5/16	2-1/8
5	3/16	7/16	2-3/4

00-585-0367

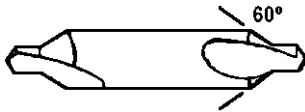
## COUNTERSINK SET

Size No.	Drill Dia./In.	Body Dia./In.	O/A Lg./In.
1/2	1/2	1/2	3-7/8
5/8	1/2	5/8	4
3/4	1/2	3/4	4-1/8
7/8	1/2	7/8	4-1/4
1	1/2	1	4-3/8

00-529-4577

## CUTTER, HOLE FORMING, DRIVE SHANK BOLT

Plain-type center drill. High speed Steel. Double end cutter, 60 degree included angle. Dimensions in inches, listed below.



Size No.	Drill Dia	Drill Lg	Body Dia	O/A Lg	
00-240-7337	1	3/64	3/64	1/8	1-1/4
00-224-8624	2	5/64	5/64	3/16	1-7/8
00-555-3610	3	7/64	7/64	1/4	2
00-224-1965	4	1/8	1/8	5/16	2-1/8
00-224-1963	5	3/16	3/16	7/16	2-3/4
00-228-2323	6	7/32	7/32	1/2	3
00-224-8618	8	5/16	5/16	3/4	3-1/2

## DRILL BLANK SET

High-speed Steel drill-blank sets. Extremely accurate drill-blanks can be used as plug gages, or machined into metal cutting tools. High-speed Steel, polished finish. Fitted into hinged metal case. Plus series (0.002/-0.0000 inches).

Letter sizes, A to Z

00-529-5691 Set of 26

Fraction sizes: 1/16 to 1/2 inch by 64ths.

00-618-6903 Set of 29  
Wire gage sizes No. 60 to 1.

00-529-5687 Set of 60

## DRILL, TWIST

General purpose, Steel twist drills. For use with hand, pneumatic, or electric portable drills, and drilling machines. 2-flutes, RH cut. With points ground ready for service.

### STANDARD TAPER WITH TANG SHANK

High-speed Steel. Friction-locking,

regular-shank drills. Cut ferrous and non-ferrous metals.



Morse taper No. 1

	Dia./In.	O/A Lg./In.
00-189-9188	1/8	5-1/8
00-189-9187	9/64	5-3/8
00-189-9186	5/32	5-3/8
00-189-9189	3/16	5-3/4
00-189-9181	7/32	6
00-189-9183	15/64	6-1/8
00-234-5139	1/4	6-1/8
00-234-5140	17/64	6-1/4
00-189-9308	9/32	6-1/4
00-189-9309	19/64	6-3/8
00-189-9310	5/16	6-3/8
00-234-5141	21/64	6-1/2
00-189-9312	11/32	6-1/2
00-189-9313	23/64	6-3/4
00-189-9314	3/8	6-3/4
00-189-9315	25/64	7
00-189-9317	27/64	7-1/4
00-189-9318	7/16	7-1/4
00-189-9319	29/64	7-1/2

Morse taper No. 2

	Dia./In.	O/A Lg./In.
00-189-9321	31/64	8-1/4
00-189-9322	1/2	8-1/4
00-189-9323	33/64	8-1/2
00-189-9324	17/32	8-1/2
00-189-9325	35/64	8-3/4
00-189-9326	9/16	8-3/4
00-189-9327	37/64	8-3/4
00-228-1325	19/32	8-3/4
00-228-1326	39/64	8-3/4
00-228-1327	5/8	8-3/4
00-228-1328	41/64	9
00-228-1329	21/32	9
00-228-1330	43/64	9-1/4
00-228-1331	11/16	9-1/4
00-228-1332	45/64	9-1/2
00-228-1333	23/32	9-1/2
00-228-1334	47/64	9-3/4
00-228-1335	3/4	9-3/4
00-228-1336	49/64	9-7/8
00-228-1337	25/32	9-7/8

Morse taper No. 3

	Dia./In.	O/A Lg./In.
00-228-1339	13/16	10-3/4
00-228-1341	27/32	10-3/4
00-228-1343	7/8	10-3/4
00-228-1321	29/32	10-3/4
00-228-1345	15/16	10-3/4
00-228-1347	31/32	11
00-228-1349	1	11
00-228-1350	1-1/64	11-1/8
00-228-1351	1-1/32	11-1/8

Morse taper No. 4

	Dia./In.	O/A Lg./In.
00-228-1357	1-1/8	12-3/4

	Dia./In.	O/A Lg./In.
00-228-1360	1-11/64	13
00-228-1365	1-1/4	13-1/2
00-228-1373	1-3/8	14-1/2
00-228-1379	1-1/2	15

Morse taper No. 5

	Dia./In.	O/A Lg./In.
00-228-1403	2	17-3/8

## STRAIGHT ROUND SHANK

Standard high-speed Steel twist drills. Shank fits conventional 3-jaw drill chucks. Drill cuts ferrous and non-ferrous metals.



## FRACTIONAL SIZES

Jobber's (short) length.

	Dia./In.	Lg./In.
00-266-9233	1/64	3/4
00-266-9234	1/32	1-3/8
00-227-9645	3/64	1-3/4
00-227-9646	1/16	1-7/8
00-227-9647	5/64	2
00-010-4005*	3/32	2
00-227-9648	3/32	2-1/4
00-227-9649	7/64	2-5/8
00-227-9650	1/8	2-3/4
00-227-9651	9/64	2-7/8
00-227-9652	5/32	3-1/8
00-227-9653	11/64	3-1/4
00-227-9654	3/16	3-1/2
00-227-9471*	3/16	3-1/2
00-243-9612	13/64	3-5/8
00-227-9656	7/32	3-3/4
00-243-9611	15/64	3-7/8
00-227-9658	1/4	4
00-222-9469*	1/4	4
00-227-9659	17/64	4-1/8
00-227-9660	9/32	4-1/4
00-240-8443	19/64	4-3/8
00-227-9662	5/16	4-1/2
00-222-9470*	5/16	4-1/2
00-243-9613	21/64	4-5/8
00-227-9664	11/32	4-3/4
00-227-9665	23/64	4-7/8
00-227-9666	3/8	5
00-222-9467*	3/8	5
00-227-9667	25/64	5-1/8
00-227-9668	13/32	5-1/4
00-227-9669	27/64	5-3/8
00-227-9670	7/16	5-1/2
00-227-9671	29/64	5-5/8
00-227-9673	15/32	5-3/4
00-227-9674	31/64	5-7/8
00-227-9672	1/2	6
00-222-9466*	1/2	6

\* Hardened Steel body for drilling. Cast Iron or non-ferrous materials.

Taper (long) lengths.

	Dia./In.	Lg./In.
00-262-2180	1/8	5-1/8
00-236-4048	3/16	5-3/4

# CLASS 5133

	Dia./In.	Lg./In.
00-236-4059	1/4	6-1/8
00-236-4069	5/16	6-3/8
00-232-8161	3/8	6-3/4
00-266-9462	17/32	8
00-266-9464	9/16	8-1/4
00-233-6455	19/32	8-3/4
00-266-9466	5/8	8-3/4
00-266-9467	21/32	9
00-266-9468	11/16	9-1/4
00-266-9470	23/32	9-1/2
00-266-9471	3/4	9-3/4

## LETTER SIZES

Jobber-length letter drills. For size E (.250) use 1/4 inch drill, NIIN 00-227-9658. For size K (.281) use 9/32 inch drill, NIIN 00-227-9660.

## Individual sizes

	Size	Dia./In.	Lg./In.
00-262-2191	A	.234	3-7/8
00-232-6398	B	.238	4
00-232-6399	C	.242	4
00-262-2179	D	.246	4
00-262-2192	F	.257	4-1/8
00-262-2193	G	.261	4-1/8
00-262-2194	H	.266	4-1/8
00-262-2157	I	.272	4-1/8
00-262-2158	J	.277	4-1/8
00-262-2160	L	.290	4-1/4
00-262-2161	M	.295	4-3/8
00-262-2162	N	.302	4-3/8
00-262-2163	O	.316	4-1/2
00-262-2164	P	.323	4-5/8
00-262-2165	Q	.332	4-3/4
00-262-2166	R	.339	4-3/4
00-262-2167	S	.348	4-7/8
00-262-2168	T	.358	4-7/8
00-262-2169	U	.368	5
00-262-2170	V	.377	5
00-262-2171	W	.386	5-1/8
00-262-2172	X	.397	5-1/8
00-262-2173	Y	.404	5-1/4
00-262-2174	Z	.413	5-1/4

## WIRE GAGE SIZES

### Notched point

### Special-length wire gage drill.

	Size	Dia./In.	Flute Lg./In.	Lg./In.
00-841-8702	1/8	.125	1-1/4	2-1/4
00-595-8850	30	.129	1-5/8	12
00-850-3292	5/32	.156	1-3/8	2-1/2
00-900-2063	3/16	.188	1-5/8	2-3/4
00-236-4053	7/32	.219	3-5/8	6
00-640-6361	1/4	.250	9	12

### Jobber-length wire gage drills.

### Individual sizes

	Size	Dia./In.	Lg./In.
00-224-4026	80	.014	3/4
00-224-4027	79	.015	3/4
00-224-4028	78	.016	7/8
00-224-4029	77	.018	7/8
00-266-9248	76	.020	7/8
00-266-9247	75	.021	1

	Size	Dia./In.	Lg./In.
00-266-9246	74	.023	1
00-266-9245	73	.024	1-1/8
00-266-9244	72	.025	1-1/8
00-266-9243	71	.026	1-1/4
00-266-9230	70	.028	1-1/4
00-262-2177	69	.029	1-3/8
00-266-9228	68	.031	1-3/8
00-262-2178	67	.032	1-3/8
00-236-4028	66	.033	1-3/8
00-233-6425	65	.035	1-1/2
00-262-2176	64	.036	1-1/2
00-262-2175	63	.037	1-1/2
00-236-4029	62	.038	1-1/2
00-266-9229	61	.039	1-5/8
00-189-9305	60	.040	1-5/8
00-189-9304	59	.041	1-5/8
00-189-9303	58	.042	1-5/8
00-189-9302	57	.043	1-3/4
00-189-9301	56	.047	1-3/4
00-189-9300	55	.052	1-7/8
00-189-9299	54	.055	1-7/8
00-189-9298	53	.060	1-7/8
00-189-9297	52	.064	1-7/8
00-189-9296	51	.067	2
00-189-9295	50	.070	2
00-189-9294	49	.073	2
00-189-9293	48	.076	2
00-189-9292	47	.079	2
00-189-9291	46	.081	2-1/8
00-189-9290	45	.082	2-1/8
00-189-9289	44	.086	2-1/8
00-189-9288	43	.089	2-1/4
00-189-9287	42	.094	2-1/4
00-189-9286	41	.096	2-3/8
00-189-9285	40	.098	2-3/8
00-189-9284	39	.100	2-3/8
00-189-9283	38	.102	2-1/2
00-189-9282	37	.104	2-1/2
00-189-9281	36	.107	2-1/2
00-189-9280	35	.110	2-5/8
00-189-9279	34	.111	2-5/8
00-189-9278	33	.113	2-5/8
00-189-9277	32	.116	2-3/4
00-189-9276	31	.120	2-3/4
00-189-9275	30	.129	2-3/4
00-189-9274	29	.136	2-7/8
00-189-9273	28	.141	2-7/8
00-189-9272	27	.144	3
00-189-9271	26	.147	3
00-189-9270	25	.150	3
00-189-9269	24	.152	3-1/8
00-189-9268	23	.154	3-1/8
00-189-9267	22	.157	3-1/8
00-189-9266	21	.159	3-1/4
00-189-9265	20	.161	3-1/4
00-189-9264	19	.166	3-1/4
00-189-9263	18	.170	3-1/4
00-189-9262	17	.173	3-3/8
00-189-9261	16	.177	3-3/8
00-189-9260	15	.180	3-3/8
00-189-9259	14	.182	3-3/8
00-189-9258	13	.185	3-1/2
00-189-9257	12	.189	3-1/2
00-189-9256	11	.191	3-1/2
00-189-9255	10	.194	3-5/8
00-189-9254	9	.196	3-5/8
00-189-9253	8	.199	3-5/8
00-189-9252	7	.201	3-5/8
00-189-9251	6	.204	3-3/4
00-189-9250	5	.206	3-3/4
00-189-9249	4	.209	3-3/4
00-189-9248	3	.213	3-3/4

	Size	Dia./In.	Lg./In.
00-189-9247	2	.221	3-7/8
00-189-9246	1	.228	3-7/8

Wire gage drills. High speed Steel, straight round shank. Double-fluted. Right hand cut.

## SPLIT POINT TYPE

Hardness rating, 40 minimum to 53 maximum.

	Size	Dia./In.	Flute Lg In.	Lg./In.
01-045-4946	42	.094	1-1/4	2-1/4
00-912-6032	40	.098	13/16	1-13/16
00-988-5655	40	.098	13/16	2-3/8
00-051-5749	40	.094	1-3/8	2-3/8
00-912-6031	30	.129	15/16	1-15/16
00-988-5664	30	.129	15/16	2-3/4
00-051-5748	30	.129	1-5/8	2-3/4
00-988-5665	29	.136	15/16	2-7/8
00-988-5673	21	.159	1-1/16	3-1/4
00-912-6030	21	.159	1-1/16	2-1/8
00-988-5674	20	.161	1-1/16	3-1/4
00-838-5300	20	.161	2-1/8	3-1/4
00-065-0980	11	.191	2-5/16	3-1/2
00-988-5683	11	.191	1-3/16	3-1/2
00-988-5684	10	.194	1-3/16	3-5/8
00-838-5245	10	.194	2-7/16	3-5/8
00-912-6029	9	.196	1-3/16	21/4

Hardness rating, 66 minimum to 67.5 maximum.

	Size	Dia./In.	Flute Lg In.	Lg./In.
00-837-7595	1/16	.063	7/8	1-7/8
01-053-7932	5/64	.078	1	2
00-988-5695	1/8	.125	1-5/8	2-3/4
00-988-5696	9/64	.141	1-3/4	2-7/8
00-988-5697	5/32	.156	2	3-1/8
01-051-4114	13/64	.203	2-7/16	3-5/8
00-988-5701	7/32	.212	2-1/2	3-3/4
00-988-5702	15/64	.234	2-5/8	3-7/8
00-988-5703	1/4	.250	2-3/4	4

## Non-Spec type twist drill

General purpose - 4-1/16 inch flute length. .4375 inch cutting diameter.

00-222-9468 7/16 in. dia. 5-1/2 in. lg.

## DRILL SET, TWIST

Fractional size drill sets in metal cases. Quantity, sizes, and set number as indicated. 8-drills, sizes: 1/16 to 9/32 by 32nds. Jobber lengths.

00-293-0981 Set No. 2 B

8-drills, sizes: 1/16 to 1/2 by 16ths. Jobber lengths.

00-293-0982 Set No. 2 A

11-drills, sizes: 1/8 to 3/4 by 16ths. Jobber lengths.

00-278-0232 Set No. 2 A

13-drills, sizes: 1/16 to 1/4 by 64ths. Jobber lengths.

00-618-7783 Set No. 2 B

# CLASS 5133

20-drills, wire gage. Sizes: 80 to 61. Diameters .0135 to .0390 in. Jobber lengths. Fitted into hinged metal case.

00-555-1528 Set No. 4

23-piece set. Includes: 15 jobber length drills, sizes: 1/16 to 1/2 by 32nds; 8 taper-length drills, size: 17/32 to 3/4 by 32nds.

00-278-0230

26-drills, letter sizes A to Z. Diameters .2340 to .4130 inches in jobber-lengths. Fitted into Plastic case.

00-540-4375 Set No. 5

29-drills, sizes: 1/64 to 1/2 by 64ths. Jobber lengths.

00-293-0983 Set No. 2

60-drills, straight shank, wire gage sizes, jobbers length, high speed Steel. Number 60 through number 1.

00-449-6775 Set No. 3

NAS 907-80205 Professional/Industrial Assoc Standard.

18-drills, sizes: 7/64 to 3/8 by 64ths. General purpose drills.

00-980-3422

43-drills, Cobalt, Oxide treated. Straight shank, jobbers length, short flute length. Number 1 through 43.

00-980-3423

## SCREW GUIDE

Combination drill and countersink. Adjustable stop for setting 2 inch flathead screws flush, 1/8 or 1/4 inch below surface. 1/4 inch diameter shank.

	Bit/No.
00-865-4208	10
00-865-4209	12

## CLASS 5136

### TAPS, DIES, AND COLLETS; HAND AND MACHINE

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

#### DIE, RETREADING

Solid hex-nut rethreading dies. Hand wrenchable Carbon Tool Steel dies, for repair work. Dresses over bruised or rusty right-hand threads, Unified and American National series. Thread size listed below.



Coarse (UNC) thread.

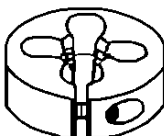
	Thd/Size
00-197-9552	1/4-20
00-237-8269	5/16-18
00-237-8270	3/8-16
00-197-9553	7/16-14
00-197-9554	1/2-13
00-197-9555	9/16-12
00-197-9556	5/8-11
00-197-9557	3/4-10
00-197-9558	7/8-9
00-197-9559	1-8
00-197-9562	1-1/8-7
00-197-9563	1-1/4-7
00-197-9564	1-3/8-6
00-197-9565	1-1/2-6

Fine (UNF) thread.

	Thd/Size
00-189-3120	1/4-28
00-239-8240	5/16-24
00-237-8272	3/8-24
00-237-8273	7/16-20
00-237-8274	1/2-20
00-197-9566	9/16-18
00-197-9567	5/8-18
00-197-9568	3/4-16
00-197-9569	7/8-14
00-197-9571	1-12
00-197-9570	1-1/8-12
00-197-9572	1-1/4-12
00-189-3128	1-1/2-12

#### DIE, THREAD CUTTING

Round split dies with internal adjusting screws. High-speed Steel dies fit hand diestocks of same diameter size. Cuts right-hand. Unified and American National threads.



13/16 inch outside diameter, 1/4 Inch thick High speed Steel. Machine screw thread size as noted.

	Thd/Size
00-239-2772	1-64
00-239-2773	2-56
00-239-2774	3-48
00-239-2775	4-40
00-239-2776	5-40
00-239-2777	6-32
00-239-2778	8-32
00-239-2779	10-24
00-239-2780	12-24

1-1/2 inch outside diameter, 1/2 inch thick. Fractional thread size as noted. High speed Steel. Right-hand threads

	Thd/Size
00-189-3216	5/16-18
00-189-3217	3/8-16
00-189-3218	7/16-14
00-189-3219	1/2-13

Tool Steel. Left-hand threads.

	Thd/Size
00-224-1461	1/4-20
00-189-3204	5/16-18
00-189-3206	7/16-14
00-189-3207	1/2-13

2 inch outside diameter, 5/8 inch thick. High speed Steel, right-hand threads. Fractional thread size as noted.

	Thd/Size
00-224-1449	1/4-20

2-1/2 inch outside diameter, 3/4 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3220	9/16-12
00-189-3221	5/8-11
00-189-3222	3/4-10
00-189-3210*	3/4-10
00-189-3223	7/8-9
00-189-3224	1-8

\* Tool Steel. Left hand threads.

Fine (UNF) thread. Series B

13/16 inch outside diameter, 1/4 inch thick Machine screw thread size as noted.

	Thd/Size
00-239-2762	0-80
00-239-2763	1-72

	Thd/Size
00-239-2764	2-64
00-237-8263	3-56
00-239-2765	4-48
00-239-2766	5-44
00-239-2767	6-40
00-239-2768	8-36
00-239-2769	10-32
00-239-2770	12-28

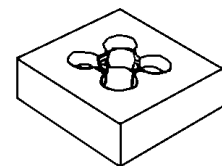
1-1/2 inch outside diameter, 1/2 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3194	1/4-28
00-189-3195	5/16-24
00-189-3196	3/8-24
00-189-3197	7/16-20
00-189-3198	1/2-20

2-1/2 inch outside diameter, 3/4 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3199	9/16-18
00-189-3200	5/8-18
00-189-3201	3/4-16
00-189-3238	7/8-14
00-820-8090	1-12

Solid square taper pipe dies. Cuts American Standard (NPT) right-hand threads. Carbon Tool Steel, smooth finish.



2 inches square, 1/2 inch thick.

	Thd/Size
00-189-3165	1/8-27

2-1/2 inches square, 3/4 inch thick.

	Thd/Size
00-189-3166	1/4-18
00-189-3167	3/8-18
00-189-3168	1/2-14
00-189-3169	3/4-14

#### DIESTOCK

Holds adjustable round split dies. Supplied with 3-adjusting screws, and 2-smooth or knurled handles. Size number noted below.

# CLASS 5136



For 5/8 inch diameter dies, 5 to 6 inches long.

00-242-2974 No. 0

For 13/16 inch diameter dies, 6 to 8 inches long.

00-221-1236 No. 1

For 1 inch diameter dies, 9 to 12 inches long.

00-889-6603 No. 1A

For 1-1/2 inch diameter dies, 12 to 18 inches long.

00-224-7113 No. 2

For 2 inch diameter dies, 20 to 28 inches long.

00-180-0548 No. 2A

For 2-1/2 inch diameter dies, 22 to 32 inches long.

00-224-7114 No. 3

## DIE AND TAP SET, THREAD CUTTING

General purpose screw threading sets. Use with diestocks and tap-reamer wrenches (See FSC 5120). Consists of: 1-round split die, 1-bottoming tap, 1-plug tap, and 1-taper tap for each thread size listed below. Each set furnished with a metal or wooden case. Arranged that components cannot come in contact with each other, thus preventing any damage to cutting edge and allowing for easy selection. Interior and exterior surfaces of case shall have a suitable protective moisture resistant coating.

80-piece set. Includes National Coarse (UNC) sizes: 1-64, 2-56, 3-48, 4-40, 6-32, 8-32, 10-24, 12-24, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 9/16-12, 5/8-11, 3/4-10, 7/8-9, 1-8. National Special (UNS) size: 1-1/16-11. RH threads. High speed Steel.

00-357-7494 Set No. 4

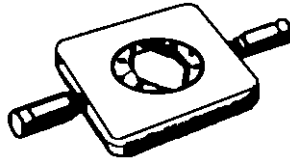
84-piece set. Includes National Fine (UNF) sizes: 0-80, 1-72, 2-64, 3-56, 4-48, 5-44, 6-40, 8-36, 10-32, 12-28, 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 9/16-18, 5/8-18, 3/4-16, 7/8-14, 1-12, and

National Special (UNS) 1-1/16-16. RH threads. High speed Steel.

00-357-7504 Set No. 6

## RESTORER, THREAD

Restores damaged external threads. Does not cut, but rolls thread back into shape. For right or left-hand standard screw, bolt, or pipe threads. Adjustable for 1/4 to 1 inch diameter, coarse and fine.



00-273-9200 2-3/4 in. swing

## TAP, THREAD CUTTING

Regular, high-speed Steel. Ground thread taps. For general purpose machine and hand tapping. Cuts unified and American National right-hand threads. Standard point, straight flutes, straight squared shank. Machine screw or fractional thread size, and pitch diameter limit symbol shown below.

### PITCH DIAMETER LIMIT SYMBOLS FOR AMERICAN NATIONAL FORM THREAD SERIES

H-INDICATES HIGH OR ABOVE BASIC LIMITS

L-INDICATES LOW OR BELOW BASIC LIMITS

	MIN BASIC PLUS IN.	MAX BASIC PLUS IN.
H1	0.0000	0.0005
H2	0.0005	0.0010
H3	0.0010	0.0015
H4	0.0015	0.0020
H5	0.0020	0.0025
H6	0.0025	0.0030

L1 EQUALS BASIC TO BASIC -0.0005 INCH

### STANDARD POINT TAPER. COARSE (UNC)



Pitch Diameter limit H1

	Thd/Size
00-189-7816	1-64
00-889-6619	2-65
00-203-7074	8-32

Pitch Diameter limit H2

	Thd/Size
00-820-8167	2-56
00-729-5687	3-48
00-729-5686	4-40
00-729-5685	5-40
00-821-1027	6-32
00-825-0332	8-32
00-729-5684	10-24
00-821-1030	12-24

### STANDARD POINT PLUG, COARSE (UNC)

Pitch Diameter limit H1

	Thd/Size
00-189-7814	1-64
00-889-6610	2-56
00-516-3373	6-32
00-203-6506	8-32

	Thd/Size
00-203-6508	10-24

Pitch Diameter limit H2

	Thd/Size
00-228-1039	3-48
00-228-1040	4-40
00-580-7361	5-40
00-729-5695	6-32
00-729-5694	8-32
00-585-6760	10-24

### STANDARD POINT BOTTOMING. COARSE (UNC)

Pitch Diameter limit H1

	Thd/Size
00-189-7812	1-64
00-889-6617	2-56
00-227-9455	6-32
00-203-6500	8-32
00-203-6501	10-24

Pitch Diameter limit H2

	Thd/Size
00-580-7152	3-48
00-729-5689	4-40
00-580-7351	5-40
00-580-7316	6-32
00-232-1974	8-32
00-580-7327	10-24

### FINE (UNF) TAPER.

Pitch Diameter limit H1

	Thd/Size
00-189-7824	0-80
00-189-7825	1-72
00-189-7826	2-64
00-516-3370	10-32

Pitch Diameter limit H2

	Thd/Size
00-729-5677	3-56
00-729-5678	4-48
00-228-0989	5-44
00-729-5675	6-40
00-729-5698	8-36
00-821-1029	10-32
00-821-1031	12-28

### FINE (UNF) PLUG.

Pitch Diameter limit H1

	Thd/Size
00-272-9760	0-80
00-272-9761	1-72
00-516-2950	8-36
00-729-5700	10-32

Pitch Diameter limit H2

	Thd/Size
00-262-3945	0-80
00-580-7323	3-56
00-228-1004	4-48
00-228-1005	5-44

	Thd/Size
00-228-1006	6-40
00-228-1007	8-36
00-228-1008	10-32

## FINE (UNF) BOTTOMING.

### Pitch Diameter limit H1

	Thd/Size
00-189-7818	0-80
00-203-6212	10-32
00-189-7819	1-72

### Pitch Diameter limit H2

	Thd/Size
00-262-1484	2-64
00-729-5711	3-56
00-580-7330	4-48
00-580-7331	6-40
00-580-7332	8-36
00-580-7155	12-28
00-555-8906	10-32
00-580-7154	5-44

## COURSE (UNC) PLUG.

### Pitch Diameter limit H2

	Thd/Size
00-221-7874	12-24

## BOTTOMING

### Pitch Diameter limit H2

	Thd/Size
00-580-7357	12-24

## FINE (UNF) TAPER.

### Pitch Diameter limit H3

	Thd/Size
00-228-0998	5/8-18

### Pitch Diameter limit H5

	Thd/Size
00-729-5706	1-1/2-12

## PLUG TAP

### Pitch Diameter limit H1

	Thd/Size
00-889-6629	2-64

### Pitch Diameter limit H2

	Thd/Size
00-228-1009	12-28

## SPECIAL (UNS) PLUG TAP.

### Pitch Diameter limit H4

	Thd/Size
00-580-7343	1-14

## EXTRA FINE (UNEF).

## Pitch Diameter limit H3, Plug

	Thd/Size
00-729-5703	1/4-32

## COARSE (UNC) PLUG.

### Pitch Diameter limit H2

	Thd/Size
00-261-3263	5/16-18

## SPIRAL POINT PLUG. COARSE THREAD (UNC).

### Pitch Diameter limit H1

	Thd/Size
00-261-3214	8-32
00-261-3259	1/4-20

### Pitch Diameter limit H2

	Thd/Size
00-261-3246	.0-80
00-261-3262	1/4-20

## SPIRAL POINT PLUG (UNF).

	Thd/Size
00-585-7901	10-32

## BOTTOMING TAP.

Ground. High-speed Steel. Fractional inch sizes, for use in general hand and machine operations. Four straight flutes unless otherwise noted. Right-hand threads unless specified. Type of chamfer and thread size shown.

### Pitch Diameter limit H1 (UNF) TAPER

	Thd/Size
00-203-6647	1/4-20
00-227-8609	1/4-28
00-865-2229	5/16-24
00-227-8611	3/8-24
00-227-8612	7/16-20
00-227-8613	1/2-20

### Pitch Diameter limit H2 (UNC) Taper

	Thd/Size
00-203-6626	3/8-16

### Pitch Diameter limit H2 (UNS) Taper

	Thd/Size
00-228-1024	1-14

### Pitch Diameter limit H3 (UNC) Taper

	Thd/Size
00-555-9206	1/4-20
00-580-7333	5/16-18
00-555-9205	3/8-16
00-580-7335	7/16-14
00-580-7334	1/2-13
00-580-7169	9/16-12
00-729-5683	5/8-11
00-729-5682	3/4-10

### Pitch Diameter limit H3 (UNF) Taper

	Thd/Size
00-580-7365	1/4-28
00-580-7364	5/16-24
00-555-9203	3/8-24
00-228-0995	7/16-20
00-228-0996	1/2-20
00-580-7170	9/16-18
00-580-7175	7/8-14
00-228-1001	1-1/4-12
00-729-5696	1-3/8-12

### Pitch Diameter limit H4 (UNC) Taper

	Thd/Size
00-239-2174	7/8-9
00-228-1031	1-8
00-580-7177	1-12
00-228-1032	1-1/8-7
00-228-1033	1-1/4-7
00-228-1034	1-1/2-6

## PLUG

### Pitch Diameter limit H1 (UNC)

	Thd/Size
00-203-6510	1/4-20
00-203-6511	5/16-18

### Pitch Diameter limit H1 (UNF)

	Thd/Size
00-227-8618	1/4-28
00-203-6220*	1/4-28
00-227-8619	5/16-24
00-227-8620	3/8-24
00-227-8621	7/16-20
00-227-8622	1/2-20
00-203-6226	*1/2-20

\* Left-hand thread.

### Pitch Diameter limit H2 (UNC)

	Thd/Size
00-203-6513	9/16-18
00-227-8625	7/8-14

### Pitch Diameter limit H3 (UNC)

	Thd/Size
00-729-5693	1/4-20
00-276-1031	5/16-18
00-276-1032	3/8-16
00-729-5691	7/16-14
00-729-5692	1/2-13
00-729-5690	9/16-12
00-223-6228	5/8-11
00-729-5702	3/4-10

### Pitch Diameter limit H2 (UNF)

	Thd/Size
00-580-7360	1/4-28
00-580-7359	5/16-24
00-555-8910	3/8-24
00-580-7182	7/16-20
00-580-7184	1/2-20
00-580-7186	9/16-18
00-254-4518	5/8-18

### Pitch Diameter limit H4 (UNC)

# CLASS 5136

	Thd/Size
00-729-5701	7/8-9
00-227-7260	1-8
00-221-7040	11/8-7
00-221-7041	11/4-7

## Pitch Diameter limit H4 (UNF)

	Thd/Size
00-228-1014	3/4-12
00-580-7342	3/4-16
00-580-7188	7/8-14
00-841-2837	1-12
00-865-2232	1-1/8-12

## Pitch Diameter limit H5 (UNF)

	Thd/Size
00-228-1015	1-1/2-12

## BOTTOMING

### Pitch Diameter limit H1 (UNC)

	Thd/Size
00-227-8628	5/16-24
00-517-5561	1/4-20

### Pitch Diameter limit H1 (UNF)

	Thd/Size
00-227-8627	1/4-28
00-203-6504	3/8-16
00-227-8629	3/8-24
00-203-6216*	3/8-24

\* Left hand thread.

### Pitch Diameter limit H2 (UNF)

	Thd/Size
00-227-8631	1/2-20
00-227-8633	3/4-16

### Pitch Diameter limit H3 (UNC)

	Thd/Size
00-293-0711	1/4-20
00-293-0712	5/16-18
00-293-0715	3/8-16
00-580-7353	7/16-14
00-729-5688	1/2-13
00-729-5718	9/16-12
00-729-5717	5/8-11
00-729-5716	3/4-10

### Pitch Diameter limit H3 (UNF)

	Thd/Size
00-580-7354	1/4-28
00-580-7355	5/16-24
00-729-5710	3/8-24
00-580-7156	7/16-20
00-580-7356	1/2-20
00-580-7158	9/16-18
00-262-2195	5/8-18
00-228-1023	3/4-16

### Pitch Diameter limit H4 (UNC)

	Thd/Size
00-228-1054	7/8-9
00-729-5715	1-8
00-228-1055	11/8-7
00-228-1056	11/4-7
00-228-1057	11/2-6

## Pitch Diameter limit H4 (UNF)

	Thd/Size
00-580-7163	7/8-14
00-729-5709	1-1/8-12
00-228-1025	1-1/4-12
00-262-2200	1-3/8-12

American Standard taper NPT taps. High-speed Steel. Cuts right-hand threads, commercial ground. Straight, squared shank Plug type. Size and threads per inch shown.

2-1/8 inches overall length, four flutes.

00-889-5309	1/16-27
00-189-7805	1/8-27

2-7/16 inches overall length, four flutes.

00-189-7806	1/4-18
-------------	--------

2-9/16 inches overall length, four flutes.

00-189-7807	3/8-18
-------------	--------

2-19/32 inches overall length, four flutes.

00-889-5316	3/8-18
-------------	--------

3-1/8 inches overall length, four flutes.

00-189-7808	1/2-14
-------------	--------

3-1/4 inches overall length, five flutes.

00-237-8147	3/4-14
-------------	--------

3-3/4 inches overall length, five flutes.

00-237-8148	1-11-1/2
-------------	----------

4 inches overall length, five flutes.

00-237-8149*	1-1/4-11-1/2
--------------	--------------

\* Taper chamfer type.

4-1/4 inches overall length, six flutes.

00-889-6976	1-1/2-11-1/2
-------------	--------------

4-1/2 inches overall length, seven flutes.

00-889-6977	2-11-1/2
-------------	----------

For helical coil screw thread inserts. These are special roughing and finishing thread taps. To prepare drilled holes for the installation of helical coil screw thread inserts (refer FSC 5340). Taps are identified by nominal internal thread size, of the insert. Thread diameter of these taps will be larger than standard taps but the pitch will be the same. Refer to FSC 5180 for repair kits, which contain all necessary tooling for installing helical

coil inserts. Order replacement taps according to insert internal thd size. NIIN will be followed by thread size.

Screw thread insert. High speed Steel. Plug chamfer type. 4 flutes.

	STI
00-045-0596	6-32
00-825-7133	8-32
00-825-7132	10-24
00-825-7130	10-32
00-825-7126	1/4-20
00-825-7119	1/4-28
00-825-7111	5/16-18
00-825-7088	3/8-16
00-825-7090	3/8-24

Finishing, plug style. Sizes and threads per inch (UNF) shown.

	Thd/Size
00-876-8910	1/2-13

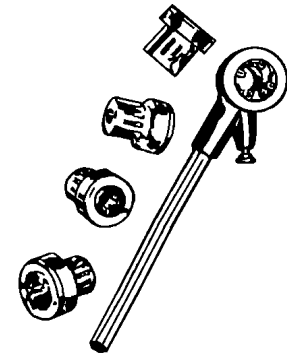
## TAP SET, THREAD CUTTING

3-Piece Carbon Steel hand tap sets. Cut thread taps for Unified and American National Coarse (UNC) right hand threads. Set Includes: one taper, one plug, and one bottoming tap, same size.

	Thd/Size
00-293-3325	1/4-20
00-293-3324	5/16-18
00-293-3323	3/8-16
00-293-3322	7/16-14
00-293-3317	1/2-13

## THREAD CUTTER, DIE HEAD, HAND

Pipe threading diestock with replaceable dieheads. Set includes handle, yoke with ratchet pawl, individual dieheads and non-adjustable, renewable dies for each size listed. Cuts R.H. American Standard taper pipe (NPT) threads.



6 - dies, sizes: 1/2-14, 3/4-14, 1-11-1/2, 1-1/4-11-1/2, 1-1/2-11-1/2, and 2-11-1/2.

00-826-1125



7 - dies, sizes: 1/8-27, 1/4-18, 3/8-18, 1/2-14, 3/4-14, 1-11-1/2, and 1-1/4-11-1/2.

00-889-6499

9 - dies, sizes: 1/8-27, 1/4-18, 3/8-18, 1/2-14, 3/4-14, 1-11-1/2, 1-1/4-11-1/2, 1-1/2-11-1/2, and 2-11-1/2.

00-081-1739



## CLASS 5140 TOOL AND HARDWARE BOXES

**NOTE:** As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

### BAG, LINEMAN'S TOOL, ROUND

Collapsible Canvas Duck bag for raising and lowering tools. 12 inches in diameter by 16-1/2 inches high. With heavy Leather bottom and 3/8 inch diameter rope handle.



00-288-7763

### BAG, TOOL

Envelope type. Cotton Duck material. 10-1/8 inches high, 20-1/4 inches long. Size 4.

00-772-4142

Nylon Duck. Overall length, 19.500 inches nominal. Overall width, 6.000 inches nominal. Overall height, 8.500 inches nominal.

00-473-6256

### BAG, TOOL, SACHEL

Cotton Duck and Leather. 1 compartment, Leather strap fastening closure, 2 harness Leather handles, rigid Steel frame mouth, with Leather reinforced bottom and sides. 24 inches long by 6 inches wide by 15 inches high.

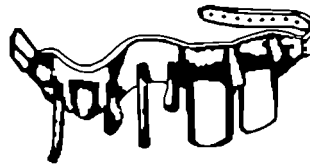
00-293-2379

Cotton Duck, with flap closure. Without sling. 14 inches long by 2 inches wide by 8 inches high.

00-540-2294

### BELT, TOOL, REPAIRMAN'S

Canvas belt for electricians' tool kit. (Electrical Repair Party Lockers). Holds pliers, fuse puller, screwdriver, insulation tapes, twine, and adjustable open end wrench. NAVSHIP Drawing number 9000-S6202-713125 (pc 2, 4 inches wide).



Waist Size/In.

00-391-1069 30 to 40

Leather belt with hammer loop, snap hook, and tape sling. 1-3/4 inches wide.

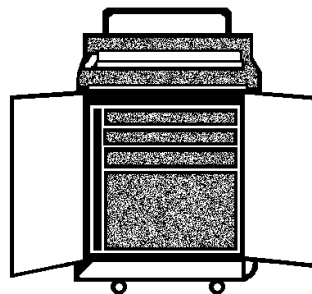
Waist Size/In.

00-529-2517 34  
 00-529-2694 38  
 00-529-2691 44

### CABINET, TOOL, MOBILE

Heavy gage Steel cabinets for rolling cabinet and tools to the job. Listed in order of drawer quantity.

Enameled surface, 3-drawer, tilt and roll type. Stands level in upright position. Has two 10 inch diameter wheels and 3-point locking handle for gripping and trucking. 2 piano hinged full length doors; 1 with pegboard, other with 4 shelves. Large tool storage compartment. Integral keylock. 28 inches wide by 37 inches deep by 30 inches high. 37 inches maximum high working surface.



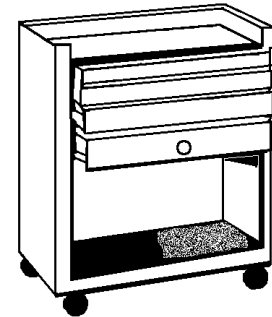
00-608-4757

Enameled surface, 3-drawers: 1 lower compartment, 2 fixed. 2 swivel wheels. 32 inches high by 26-1/2 inches wide by 18 inches deep. With key, lock, and 2 handles.

00-870-4796

4-drawer, upright rolling type. Has 4 inch diameter casters with brakes: 2 fixed, 2-swivel.

Bottom compartment, 26-3/8 inches wide by 31 inches high by 18 inches deep. Pin tumbler lock on either full front panel or compartment panel and drawers. 26-3/8 inches wide by 18 inches deep by 31 inches high overall.



00-030-6617

5-drawer, upright rolling type. 2-fixed and 2-swivel type casters. Steel overall. Red with sliding door. 26-3/8 inches wide by 34 inches high by 18 inches deep. 3-drawers: 21-1/4 inches wide by 2-1/2 inches deep. 2-drawers: 21-1/4 inches wide by 4-1/2 inches deep. Closed compartment design. Special feature: Available in 4-colors: Gray, Red, Green, or Blue. As specified, hue may be Brown.

01-010-4776

7-drawers. Steel, painted Brown. 29 inches wide by 34 inches high by 20 inches deep. Rolls on casters.

01-010-4775

8-drawers, Steel. 19 inches wide by 37-1/8 inches high. Rolls on casters.

01-019-0802

### CARRIER, TOOL

Leather and Cotton Duck holders for small tools. Slip-over belts, straps, etc.

Cloth, Duck, Cotton. 1-pocket tool carrier. With double wire hook for attachment to belt. 8-1/2 inches long by 3-3/4 inches wide. Used for carrying small hand tools.

00-261-4994

Leather, 2-pocket tool carrier. Holds knife and pliers. With flap and belt tunnel loop. 8 inches long by 3 inches wide.

# CLASS 5140

00-498-8898

Leather, 5-pocket tool carrier. Arranged horizontally in 2-rows. 3-compartments in back row, 2-compartments in front row, with slits through which a belt may be inserted. Snap hook and 2-Steel staples.



	Lg/In.	W/In.
00-735-7988	8-1/2	6-1/2
00-529-1889	9-1/4	8-1/2

Leather overall. 6 compartments, 3 in the back and 3 in the front. Has slit for belt to fit through. Special Feature: Has a snap hook for attaching a knife.

	Lg/In.	W/In.
00-927-8963	10	7

## CASE, TWIST DRILL

Metal case for straight shank drill sets. Hinged cover raises drill-holder(s) to upright position. Marked with jobber length drill sizes.

For 29 fractional drills, sizes: 1/16 to 1/2 inches by 64ths. See 5133-00-293-0983 for drill set.

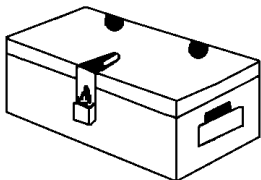
00-277-8835

For 60 wire gage drills, sizes 1 to 60. See 5133-00-449-6775 for drill set.

00-277-8836

## CHEST, TOOL KIT

Mechanics tool storage box. 18-gage Galvanized sheet Steel all welded or riveted construction. 10 inches wide by 10-5/8 inches long by 3-7/8 inches deep. Tote tray, butt-hinged lid, 2-end handles, and trunk latch device. 23 inches long by 11 inches wide by 9 in high overall. NAVSEA Drawing CV20-S9200-335182.



00-369-4927

## POUCH, MECHANIC'S TOOLS

Mechanics' Olive Drab Cotton Duck cloth tool pouch. Two Cotton webbing handles. Zipper closure along the entire length of the top, extending 2 inches downward on each end. 4-tool pockets sewed to each inner side. 3-tool

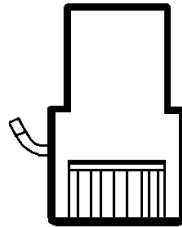
pockets with flap sewed to each outer side. Bottom is stiffened with synthetic composition board. Overall dimensions, excluding projections: 11-1/2 inches long by 5-1/4 inches wide by 7 inches high.

00-329-4306

## ROLL, TOOLS AND ACCESSORIES

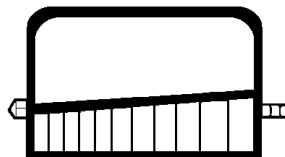
Cotton Duck material, with strap and buckle closure method. Mildew resistant and water repellent.

11 pockets, without flap. 12-1/2 inches long by 7-5/8 inches wide. Pocket widths are: .937, .812(2), .875, 1.000, 1.125(3), 1.313, 1.438, and 1.562.



00-708-3431

9 pockets, with flap. 21-1/2 inches long by 12 inches wide. Pocket sizes: 6 inches high by 1-1/2 inches wide (3), 6 inches high by 2 inches wide (4), 6 inches high by 2-1/2 inches wide (1), and 6 inches high by 12 inches wide (1).



00-335-0085

Made of Canvas, 6 pockets, flap that secures with a snap fastener. Mildew resistant.

00-650-7328

Plastic material. 12 pockets with a tape tie closure. Measures 19.750 inches long by 14.500 inches wide. Non Spec Item.

00-106-5671

## TOOL BOX, PORTABLE

Steel, 4-5/16 inches long by 2-53/64 inches wide by 3/4 inches high.

00-448-3967

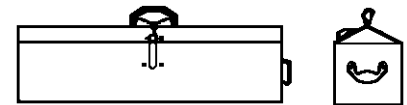
Portable Aluminum briefcase style, top carrying handle, 2 latch closure method, 3 panels for tool control. Tools can be mounted in holes or attached to panels. Accommodated pounds of tools shown below.

	Lg/In.	W/In.	H/In.	Lbs
01-154-3870	18	6	11-1/2	20
01-154-3868	18	8-13/32	13-1/2	45
01-154-3869	22	8-13/32	16-1/2	60

Portable sheet Steel tool boxes and chests. All have full-length piano hinges, carrying handle(s), locking hardware, and baked Enameled finish, except as noted.

## CARPENTER'S

Consists of: a body, lid, 2 drawers, 2 level brackets, saw block, hardware, and handle. Body and lid are fabricated from sheet Steel, 22 or more gage thick, Enameled finish. Pressed wood bottom protects edged tools. Each outside corner reinforced for added strength and protection. One handle at top of chest, 2nd handle on end. Furnished with one hasp and staple for padlock. 32-3/8 inches long by 8-3/8 inches wide by 9-1/2 inches high.



00-816-1791

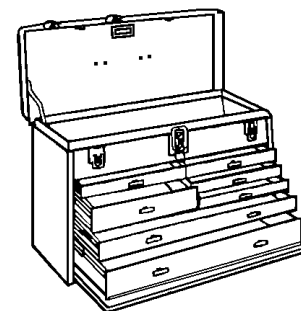
## MACHINIST'S

Chest with tilt-top sliding drawers, and front locking panel. Felt lined top compartment and drawers. Front panel slides under bottom drawer. Hinged lid with bracket stop and top center handle. Pin tumbler lock with 2 keys. 22 compartments per drawer. 20 inches long by 8-1/2 inches wide by 13 inches high.

3-Drawer Chest

00-494-2015

7-Drawer Chest

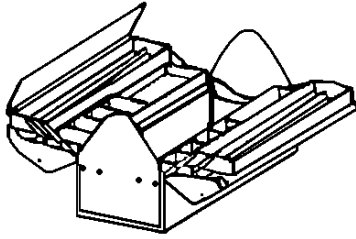


00-319-5079

## MECHANIC'S

Steel, Enameled tool box. 4-cantilever trays, double cover, hip roof type, heavy duty handles, and reinforcing skids on bottom. Covers on 2 of the 4 trays. Padlock eye or hasp and 2 draw bolts or catches.

# CLASS 5140

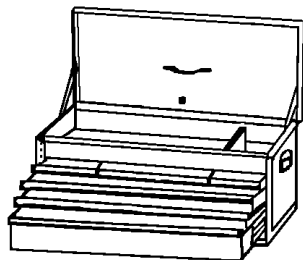


	Lg./In.	W./In.	H./In.
00-289-8911	18	10-1/2	14
00-289-8910	22	10-1/2	14

General use. Steel Enameled, Epoxy treated tool box with tote tray. Without lock. Double cover hip roof type, two 5/16 inch diameter formed handles. 3-compartment tray, 1-3/4 inches deep.

	Lg./In.	W./In.	H./In.
00-498-8772	21	8-1/2	7-3/8
00-473-6260	21	9-1/2	9-7/8

Tool chest with 6 drawers and tote tray. Hinged top cover and front locking panel lift up and out of the way. Folding brackets hold lid open. Tote tray fits 3-section tilt-in-top compartment. Top center and end drawers, 4-1/4 by 10-1/4 by 1 inches deep (minimum). 3-full-width drawers, two 1 inches deep, one 2-3/4 inches deep (minimum). 2 metal side handles for easy carrying. 26 inches long by 13 inches wide by 15 inches high overall.

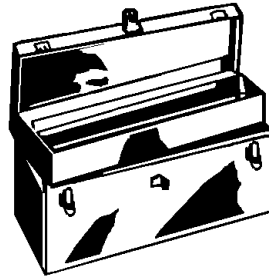


00-388-3416

Tool chest with 9 drawers. Integral key locking with tumbler type lock panel. Handles on left and right end surfaces. 31 inches long, 15 inches wide, and 17 inches high. Steel material treated with enamel.

00-104-0196

Steel, Enamel coated, with 3 compartment tote tray. 1 hasp and staple for padlock and 2 draw bolts. 1 handle on top. 22 by 8-1/2 by 9-1/2 inches high overall.



00-315-2758

Steel, Enamel coated. 1 hasp and staple for padlock. 1 handle each end. 38 inches long by 22 inches wide by 17 inches high overall.

00-226-9021

Steel, Enamel coated. 2 latch fasteners, with piano hinge and top folding carrying handle. 25-1/2 inches long by 6 inches wide by 4-1/2 inches high overall. Snap-On Tools, number: KRA-109. SPCC HX Quality control item.

00-902-3983

## SHIPFITTER'S

Hip roof tool box with narrow tote tray. Reinforcing skids on bottom. Braced lid with chest type top handle, hasp and staple for padlock eye. Tray 3-1/16 inches wide by 2 inches deep overall. 18-1/2 inches long by 7-1/2 inches wide by 8 inches high.

00-587-5558

## TOOL STORAGE BOXES

Heavy duty storage boxes for craftsmans tools. Heavy gage Steel, Olive Green Enamel finish overall. Lid fitted with butt-hinges, hasp, and staple.

Side handles with 90 degree stops. Marking and size as noted.

Electricians mate's. 24 inches long by 12 inches wide by 12 inches deep. 18 gage Steel, with 2 butt-hinges and 1 drop handle on top center.

00-226-9018

Motor Machinists mate's. 33 inches long by 14 inches wide by 12 inches deep. 16-gage Steel with 3 butt-hinges and 2 side handles.

00-226-9019

Red enamel Steel portable tool box. 9 drawers

with top till. Integral key locking device. 2 handles; one on each end. Top chest. Camp Items. Dimensions in inches. Non-Spec Item.

	Lg./In.	W./In.	H./In.
01-386-0784	26.000	14.750	20.750

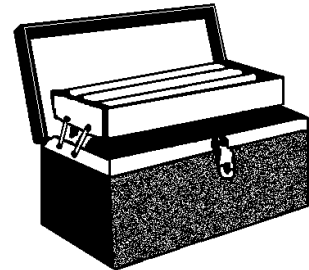
Painted Steel portable tool box. One removable tray. Top handle. Hasp and staple available for unprovided padlock. Dimensions in inches. Non-Spec Item.

	Lg./In.	W./In.	H./In.
01-081-7826	24.000	8.5000	9.750

## UNIVERSAL -TYPE

Tool boxes with reinforced corners. 24-gage Steel. Continuous hinged lid with top center carrying handle, draw bolt and hasp, and staple.

2-compartment cantilever tray. 1-3/8 inch deep. Tray lifts up and out when lid is opened.



	Lg./In.	W./In.	H./In.
00-331-5496	19	7	7

3-compartment tote tray. Handled tray supported by brackets.

	Lg./In.	W./In.	H./In.
00-315-2747	16	7	7

## TOOL CABINET, REPAIR

24 inches long by 24 inches high. Up to 60 pounds of handtools can be attached to panels by clips, brackets, and hooks. Aircraft maintenance.

00-124-5644

## TOOL RETAINER

Steel material 18 inches long and 3 inches wide. Used to hold round shank tools. Tools rest on foam block inside retainer.

	Qty./In.	Size/In.
00-124-5613	13	1/4
00-124-5618	17	3/8



## CLASS 5180 SETS, KITS AND OUTFITS OF HAND TOOLS

**NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.**

### CHISEL AND PUNCH KIT, METALWORKING

19 piece kit includes: Five hand-held cold, chisels; 13 punch drive pins; One solid center punch (With Special Feature: chisel gage); Solid center punch, 3-3/4 inches long by 5/16 inches in diameter, with 1/8 inch point; Drive pin punch, 4 inches long by 1/2 inch in diameter, with 7/32 inch point.

Chisels Point Lg/W	Punch, Drive Pins	
	Taper Dia/Lg	Dia/Lg
5 x 3/8	3/32 x 11/16	3/32 x 1-1/2-2-1/2
5-3/4 x 1/2	1/8 x 3/4	1/8 x 1-1/2-2-3/4
6 x 5/8	5/32 x 13/16	5/32 x 1-1/2-2-3/4
6 x 3/4	3/16 x 15/16	3/16 x 1-3/4-3
7-1/2 x 7/8	1/4 x 1	1/4 x 2-3-1/2
—	5/16 x 1	5/16 x 2-3-1/2

00-055-7042

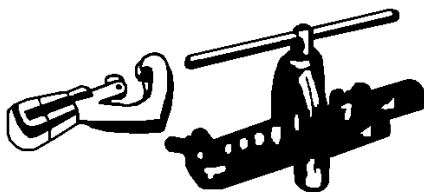
### CLAMPING TOOL OUTFIT, STRAP BAND, HOSE

Designed for 5/8 inch wide by 1/32 inch thick strap. 100 feet long with 100 locking seals and with 2 pound mallet.

00-288-6567

### CUTTER AND FLARING TOOL KIT, TUBE, HAND

Cutter has feed mechanism, closed flare cut off and a deburring tool. Cuts tubing with outside diameter of 1/8 inches through 1-1/8 inch. Flaring tool is screw actuated, swivel cone, and hinged die type. Double flaring adapter provided and accommodates 3/16 inches through 1/2 inch tubing. Capable for single flaring of: 1/8, 3/16, 1/4, 3/8, 1/2, and 3/4 inches. Can produce flare angle of 90 degrees. Cadmium Plated tubing not acceptable.



00-596-1038

### PULLER KIT, UNIVERSAL

Mechanical means to pull apart pressed items.

25 components

Consists of: Adapter, mechanical puller (2) 5120-00-034-7626; adapter, mechanical puller (2) 5120-00-034-7627; spacer, adapter puller (1) 5120-00-034-7631; spacer, adapter, puller (1) 5120-00-034-7632; spacer, adapter, puller (1) 5120-00-034-7633; spacer, adapter, puller (1) 5120-00-034-7634; legs, push puller (1) 5120-00-277-0632; puller attachment, mechanical (1) 5120-00-595-8424; puller attachment, mechanical (1) 5120-00-288-6756; puller, mechanical (1)

5120-00-288-7710; puller, mechanical (1) 5120-00-288-7711; puller, mechanical (1) 5120-00-288-7712; puller, mechanical (1) 5120-00-288-7713; puller, mechanical (1) 5120-00-288-7714; adapter, mechanical puller (2) 5120-00-316-9170; adapter, mechanical puller (2) 5120-00-316-917; adapter, mechanical puller (2) 5120-00-316-9172.

00-033-5606

Mechanical gear and bearing puller kits with metal carrying case.

26 components

Consists of: 2 pullers; single end grip sizes 3 and 5; one push-pull type puller, size 1; two external bearing puller attachments, sizes 2 and 3; 10 adapters, 2 of each size 1, 2, 4, 7, and 9; 1 pair of push-pull legs, 15-3/4 inches long; 3 spacer adapters, sizes 3, 4, and 5; one box wrench, 1 inch, 12-point single end, with 11 inch extension.

00-033-5607

28 components

One rod 5120-00-313-9497; one sliding hammer 5120-00-313-9498; one nut 5120-00-313-9499; one yoke 5120-00-313-9500; 3 pins 5120-00-313-9501; one cross-arm 5120-00-313-9502; 3 jaws 5120-00-313-9506; one jaw 5120-00-313-9508; 3 jaws 5120-00-340-2010; 3 jaws 5120-00-340-2010; one yoke 5120-00-357-9244.

00-313-9496

### RIVETER KIT, BLIND, HAND

Contains FSI D-100 Hydraulic hand riveter. Adapter sleeve. Adapter puller shaft. Nosepieces size 3/32, 1/8, 5/32, 3/16 and 1/4 inch. Driving anvils number 6, 8, 10, 1/4 10 TSN, 1/4 TSN, 5/16 and 3/8. Pull-up studs 6-32, 8-32, 10-32, 1/4-28, 10-24, 1/4-20, 5/16-18 and 3/8-16. Master shaft, turn nut. Furnished in metal tool case. For installing 1/8 to 1/4 inch cherry max rivets 3/32 to 1/8 inch, pull through nut-plate rivets, 3/32 to 1/4 inch pop rivets, 6-32 8-32, 10-32, 1/4-28, 10-24, 1/4-20, 5/16-18 and 3/8-16 rivnuts.

01-201-4978

### THREADING SET, PIPE

Set contains 5 rectangular two-piece collect type dies and 5 taps with NPT right-hand threads: Sizes 1/4-18, 3/8-18, 1/2-14, 3/4-14, and 1 11-1/2. Five pipe reamer sizes 1/4, 3/8, 1/2, 3/4, and 1 inch die stock with adjustable guide. 1 tap wrench.

00-752-9360

### THREADING SET, SCREW

Threading Set, Navigation, Size 1.

Contains: 2 each taper, plug and bottoming tap, for each NC thread series shown below; One round adjustable split die, 13/16 inch outside diameter for each NC thread series shown below; Two drills for each size shown below; One die stock, for 13/16 inch outside diameter die; One tap wrench

# CLASS 5180

0-1/4 inch hand tap, T-handle; One twist drill and drill rod gage; One screw pitch gage, for threads from 9 to 40 thread per inch, also 24, 32, and 40 pitch sizes; One case; and One reamer.

Taps and Dies NC/Thd Series	Drill Size No.	Decimal	Size No.	Decimal
4-40	43	.0890	17	.1730
6-32	36	.1065	16	.1770
8-32	29	.1360	9	.1960
10-24	27	.1440	1	.2280
12-24	25	.1495	—	—

00-752-9359

Threading Set (screw) Set number 0. Size 1.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One 13/16 inch outside diameter round split die, for each NC thread series shown below; One straight-shank drill, for each drill size shown below; One die stock, for 13/16 inch outside diameter dies; One tap wrench for 0 to 1/4 inch tap capacity, with T-handle; One case; and One reamer.

Taps and Dies NC Thd Series	Drill Size No.	Decimal
3-48	47	.0785
5-40	38	.1015
8-32	29	.1360
10-24	25	.1495
12-24	16	.1770

00-752-9355

Set No. 1. Sizes 4 and 5.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One split die, for each of the NC thread series outside diameters shown below; One drill for each of the drill sizes and shank sizes, as shown below; One die stock for 1-1/2 inches and 2-1/2 inch outside diameter dies; One tap wrench for 1/4 to 1/2 capacity, with T-handle; One tap wrench for 1/2 to 1 inch tap capacity, with straight handle; One case; and One reamer.

Taps and Dies NC Thd Series	Dies OD In.	Size	Drill Decimal	Shank
1/4-20	1-1/2	No. 7	.2010	Straight
5/16-18	1-1/2	No. F	.2570	Straight
3/8-16	1-1/2	5/16	.3125	Straight
7/16-14	1-1/2	No. U	.3680	Straight
1/2-13	1-1/2	27/64	.4219	Straight
9/16-12	2-1/2	31/64	.4843	Straight ASA
5/8-11	2-1/2	17/32	.5312	Morse Taper ASA
3/4-10	2-1/2	21/32	.6562	Morse Taper ASA
7/8-9	2-1/2	49/64	.7656	Morse Taper ASA
1-8	2-1/2	7/8	.8750	Morse Taper ASA

00-752-9356

Set No. 2.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One round split die, with 3 inch outside diameter, for each NC thread series shown below; One Morse taper-shank drill, for each of the drill sizes shown below; One die stock for 3 inch outside diameter dies; One tap wrench for 1 to 2-1/2 inch tap capacity, with straight handle; and One case.

Taps and Dies NC Thd Series	Drill Size No.	Decimal
1-1/8-7	63/64	.9844
1-1/4-7	1-7/64	1.1094
1-1/2-6	1-11/32	1.3438

00-752-9357

Set no. 3. Size 4

Contains 1 each: taper, plug, and bottoming tap, for each NF thread series shown below; One round split die, 1-1/2 inch outside diameter, for each NF thread series shown below; One straight-shank drill, for each of the drill sizes shown below; One die stock for 1-1/2 inch outside diameter dies; One tap wrench for 1/4 to 1/2 inch capacity, with T-handle; One case; and One reamer.

Taps and Dies NF Series	Drill Size No.	Decimal
1/4-28	3	.2130
5/16-24	1	.2720
3/8-24	Q	.3320
7/16-20	25/64	.3906
1/2-20	29/64	.4531

00-752-9358

Non-Spec type sets.

39 components, consists of: one plug tap and 1 inch solid round die, for the thread sizes shown below; One adjustable die stock; One adjustable handle, tap wrench; One T-handle, tap wrench; One screw pitch gage; and a screwdriver.

NC Thd Series	Taps and Dies NF Thd Series	NPT Thd Series
4-40	10-32	1/8-27
6-32	1/4-28	—
8-32	5/16-24	—
10-24	3/8-24	—
12-24	7/16-20	—
1/4-20	1/2-20	—
5/16-18	—	—
3/8-16	—	—
7/16-14	—	—
1/2-13	—	—

00-856-3471

Metric

27 components, with fitted case. Consists of: three Carbon Steel taps; one die as shown below and two each die stocks; and One tap holder.

Sizes 7, 8, 9, 10, 11, and 12 MM.

00-173-4890

## TOOL KIT, AIR TUBING

7 Piece kit contains: 1 leak detector, 2 flaring tools, 2 wrenches, 1 file, and 1 instruction and order sheet. The complete kit is contained in a box.

00-343-2016

## TOOL KIT, AUTOMOTIVE ELECTRICAL

12 components. Consists of: One thickness gage, one hand-held screw starter, one slip-joint pliers (5 inches long), one roll, tools and accessories. Size 1. 11 pockets. One ignition wrench set, double head, open end with 15 and 60 degree heads.

Wrench Size

15 Deg/In.	60 Deg/In.	Lg/In.
13/64	15/64	3
15/64	13/64	3



## Wrench Size

7/32	1/4	3
1/4	7/32	3
9/32	5/16	3-1/2
5/16	9/32	3-1/2
11/32	3/8	3-3/4
3/8	11/32	3-3/4

00-422-8594

## TOOL KIT, BLIND RIVET

Consists of: D-100-1 rivet tool; 3/32 nut plate rivet nose piece; 1/8 nose piece; universal nose piece (1/8, 5/32, 3/16); 1/4 nose piece; 1/4-20, 1/4-28, 5/16-18, 3/8-16 pull-up studs and driving anvils; 187 adapter for pulling heads; metal case (2-1/2 x 6-1/2 x 10); instruction sheet; and warranty card.

01-201-4979

## TOOL KIT, CARPENTER'S

78 Components.

00-293-2875

## TOOL KIT, ELECTRICAL CONTACT

Designed to crimp pins and socket contacts of AWG wire size 12 through 26, with or without turret head. Color coded positioners for ease of alignment with indenters.

1-contents chart, 1-instruction sheet, 1-tool selection chart.

1 - M22520/1-01	crimp tool
1 - M22520/1-02	turret head
1 - M22520/1-03	turret head
1 - M22520/3-01	in service inspection gage
1 - 9/64 inch	hex wrench

00-921-5771

General purpose use. 15 components contained in tool case. 12-3/8 inches long by 8-3/16 inches wide by 3-1/4 inches high.

Parts List:

(1 Set) Contains charts, instruction sheets, and tool selection chart.

1 ea.	M83521/6-02	tool case assembly
1 ea.	M22520/1-01	crimp tool frame
1 ea.	M22520/1-02	turret head
1 ea.	M22520/1-05	universal head
1 ea.	M22520/2-01	crimp tool frame
1 ea.	M22520/2-02	positioner
1 ea.	M22520/2-03	positioner
1 ea.	M22520/3-1	in service inspection gage
1 ea.	74008	hex wrench, Allen
1 ea.	45-174	wire stripper, hand, 16 - 26 AWG (or equal)
1 ea.	M81969/17-05	installing tool
1 ea.	M81969/17-04	installing tool
1 ea.	M81969/17-03	installing tool
1 ea.	M81969/19-09	removal tool
1 ea.	M81969/19-11	removal tool
1 ea.	M81969/19-10	removal tool

00-079-3400

## TOOL KIT, ELECTRICAL REPAIR

Kit consists of: a bag, belt, hacksaw frame and blade, chisel, gloves, hammer, indicator, tape, lantern, matting, pliers, fuse puller, screwdrivers, wire strippers, twine, wrench knife with 3 inch blade and hardwood handle, fuses, and voltage tester. For shipboard repair party lockers.

00-391-1087

## TOOL KIT, ELECTRICIAN'S

Canvas tool roll. Kit consists of: extension blade, screwdriver handles, nut driver blades, pliers, tapered reamers, screwdriver blades, and an adjustable wrench.

00-650-7821

## TOOL KIT, ELECTRONIC SYSTEM

Consists of the following components: handles, extensions, Bristol spline; Allen hexagonal socket screw key bits; Phillips and slotted screwdriver blades; reamer; diagonal, chain nose, needle nose, and other pliers; adjustable wrench; electronic snips; adjustable wire and cutter stripper; electronic knife; mini-driver kit; offset ratchet screwdriver set; 4 - way socket tool; screwdriver hexagonal socket; nutdrivers; amplifier torque handle; and a tool case.

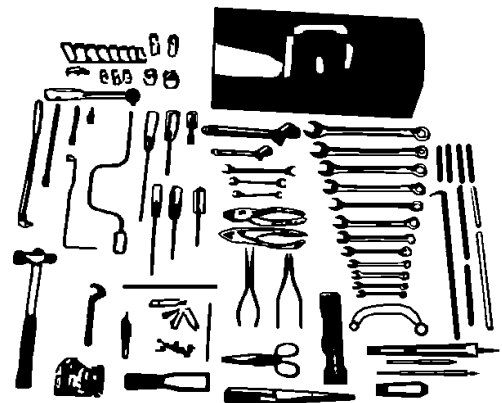
01-046-4980

Consists of the following 15 components: Diagonal cutting pliers, flat nose pliers, needle nose pliers, round nose pliers, long nose pliers, magnifier, clamp curved heat sink, solder roll, solder dispenser pack, 45 degree mirror, serrated tweezer, Oxide remover (Red and Grey), package of 5 mini heat sinks and soldering iron with tip.

00-333-3266

## TOOL KIT, GENERAL MECHANIC'S

Tools for skilled workers to work on machinery, motors, etc. Kit contains 83 pieces. Contents: a pry bar; paint brush; cold chisel; American and Swiss pattern files; flashlight; thickness gage; gap setting gage; machinists hammer, wood file handle; Allen wrench set; pocket and putty knives; pliers set; aligning drive pin and solid center punches; screwdrivers; screw starter; metal cutting shears; socket wrench sockets and handles; machinists Steel rule; adjustable open-end wrench; box wrench; crowfoot wrench; fixed open-end wrench set; spanner wrench; combination box and open-end wrench set; a padlock; and a portable tool box.



00-177-7033

39 components, with canvas case. Consists of: One T - handle; one regular handle; nine regular nut drivers; one magnetic nut driver; nine hex

# CLASS 5180

screwdrivers; nine Bristol multiple spline screwdrivers; four slotted screwdrivers; three Phillips screwdrivers; one reamer; and one extension blade.

01-034-8231

## TOOL KIT, GENERAL OFFICE REPAIR

Contains: 1 set of miniature screw drivers; 2 regular size Phillips and flat tip screwdrivers; 16 foot tape measure; 13 ounce head claw hammer; 1 retractable blade utility knife; 8-1/2 inch long shears; 1 pair 6-1/2 inch slip joint pliers; 1 pair, 6-5/8 inch long chain nose side cutting pliers; 1 pair of tweezers; 6 inch Adjustable wrench; and 1 set of Allen wrenches.

01-336-7141

## TOOL KIT, HIGHWAY SAFETY

Contains jumper cables (8 feet by 10 inches). Flashlight (3 size D batteries). 1 box of kimwipes. Electrical tape, duct tape, 2 shop rags. First aid kit, 2 vehicle triangles. 1 pair of utility jersey gloves. 3 light sticks. Emergency blanket. 5/16 inch slotted screwdriver. 2 by 4 inch Phillips screwdriver. 6 inch adjustable wrench. 7 inch groove joint pliers. Utility snips. Furnished in tool box.

01-434-5068

## TOOL KIT, MEDICAL EQUIPMENT

64 Components.

00-117-3414

## TOOL KIT, PERSONAL COMPUTER

Contains swivel head Phillips screwdrivers size 00 (6-1/4 inches long); 0 (7-1/8 inch long); 2 (7-3/4 inch long). Swivel head slotted screwdrivers size 3/32 (6-1/8 inch long); 1/8 (7-5/8 inch long). Regular Phillips screwdriver size 2 (8-1/8 inch long). Regular slotted screwdriver size 3/16 (7-1/8 inch long). Hollow shaft nut drivers size 3/16 (7-1/8 inch long) and 1/4 (7-1/8 inch long). Screwstarter with pocket clip for torx size T-10, T-15, T-20, T-25, T-27 and T-30 and most Allen hexagon and Phillips (5-1/2 inch long). 1 by 2 inch oval inspection mirror with pocket clip (9 inches long). Syringe style mechanical finger (4-1/2 inch long). Crosslock tweezers (6-1/2 inch long). Needle nose pliers (5-3/4 inch long). PC Chip remover. Inspection light with 6 inch flex and focus beam (12 inches long). Furnished in compartmented, foam padded zippered vinyl canvas tool pouch.

01-432-3144

## TOOL KIT, REFRIGERATION EQUIPMENT

117 components.

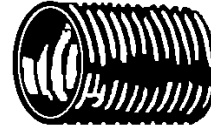
00-596-1474

## TOOL KIT, SCREW THREAD INSERT

### SLIMSERTS (SR SERIES) REPAIR KITS

Standard thin-wall inserts, both locking and free-running. All necessary tools including: step drill, tap, 4 point wrench, 6 point wrench, swage tool, and removal tool.

Instructions are provided in each repair kit. Select repair kit according to required internal thread size. Use for replacement of same size inserts with damaged internal threads or damaged tap holes which contained no inserts. Refer to FSC 5340 for individual thin-wall insert spares.



	Internal Thd/Size	Quantity Non-locking 4 Point	Self-locking 6 Point
00-177-8963	10-24UNC	40	40
00-177-8967	1/4-20UNC	40	40
00-157-1102	5/16-18UNC	20	20
00-157-1103	3/8-16UNC	12	12
00-157-1104	1/2-13UNC	10	10
00-177-8968	10-32UNF	40	40
00-178-0046	1/4-28UNF	40	40
00-177-8962	5/16-24UNF	20	20
00-157-1108	3/8-24UNF	12	12
00-157-1110	7/16-20UNF	12	12
00-157-1228	1/2-20UNF	10	10

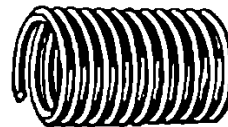
### SLIMSERTS (SRW SERIES) REPAIR KITS

Oversize thin-wall inserts, both locking and free-running types. All necessary tools, and instructions are provided in each repair kit. Select repair kit according to required internal thread size. Used for repair of damaged tapped holes. Thin wall inserts helical coil wire inserts. Refer to FSC 5340 for individual thin wall insert spares.

	Internal Thd/Size
00-126-1772	10-24UNC
00-126-1766	1/4-20UNC
00-126-1761	5/16-18UNC
00-126-1750	3/8-16UNC
00-126-1773	1/2-13UNC
00-126-2797	10-32UNF
00-126-1769	1/4-28UNF
00-126-1765	5/16-24UNF
00-126-1701	7/16-20UNF
00-126-1774	1/2-20UNF

### THREAD REPAIR KITS, HELI - COIL

Both free running and screw lock inserts of 1-1/2 and 2 nominal diameter lengths. All necessary tools, and instructions are provided in each kit. Select repair kit according to required internal thread size. Used for replacement of same size inserts when the tapped holes which contained no inserts. Refer to FSC 5340 for individual Heli-Coil wire insert spares, and FSC's 5120, 5136 and 5220 for replacement tools and taps.



	UNC Thd/Size
00-054-7506	4-40
00-054-7507	6-32
00-935-0730	8-32
00-935-0731	10-24
00-054-7526	12-24
00-935-0732	1/4-20
00-935-0733	5/16-18
00-935-0734	3/8-16
00-054-7503	7/16-14
00-051-5024	1/2-13
00-059-4829	9/16-12
00-054-7514	5/8-11
00-051-5025	3/4-10
00-054-7515	7/8-9

UNC Thd/Size  
00-051-5026 1-8

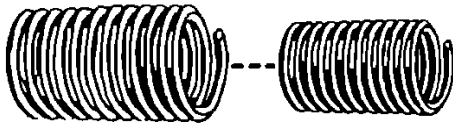
UNF Thd/Size  
00-935-0735 10-32  
00-935-0736 1/4-28  
00-935-0737 5/16-24  
00-935-0738 3/8-24  
00-935-0739 7/16-20  
00-054-7505 1/2-20  
00-054-7516 9/16-18  
00-054-7512 5/8-18  
00-054-7513 3/4-16  
00-054-7519 7/8-14  
00-054-7520 1-12  
00-054-7521 1-14  
00-054-7522 1-1/8-12  
00-054-7523 1-1/4-12

14 Component Kit: 12 inserts, 1 tap, and 1 inserter.

UNC Thd/Size  
00-760-2597 1/4-20  
00-760-2599 3/8-16  
00-760-2598 5/16-18  
00-760-2600 7/16-14  
00-760-2601 1/2-13  
00-760-2602 5/8-11

## TWINSERTS INSERT REPAIR KIT

Special insert consisting of, 2 separate coil inserts. The outer insert is free running. The inner insert is either free-running or thread locking. Select repair kit according to internal thread size. A quantity of inserts, of 1-1/2 nominal diameter length, all necessary tools, and instructions are provided in each kit. Used primarily to repair Heli-Coil insert installations. Where the tapped threads have been damaged to allow use of the original size screw.



UNC Thd/Size  
00-832-4906 8-32  
00-832-4908 1/4-20  
00-089-8132 5/16-18

UNF Thd/Size  
00-832-4914 3/8-24

## TOOL KIT, SURVIVAL, OFFROAD

Contains one each; Folding saw, folding spade, compact axe, Mag-lite flashlight, (D size batteries not included). Multipurpose folding needle nose pliers tool, small first aid kit and vinyl case.

01-457-5621

## TOOL KIT, TEST SET

Comprised of: one case; one ratchet; one extension; one screwdriver

handle; 12 Allen hex type adapters; two slotted head adapters; two Phillips-head adapters; and one adapter, 1/4 inch square drive.

00-465-3858

## TOOL KIT, TUBE FLARING HAND OPERATED

Consists of 5 components: 1 flaring tool, NSN 5120-00-782-7663. 1 Internal deburring tool for 1/8 to 1/2 inch outside diameter. 1 internal deburring tool for 5/8 to 1-1/2 inch outside diameter. 1 external deburring tool. 1 facing tool.

00-799-8860

## TOOL KIT, TUNE UP

Used for: Detroit Diesel Engine application: 53, 71, and 92.

Comprised of: one, J24790-2A, carrying case; seven injector timing gages: J1853 1.460, J26888 1.466, J24236 1.470, J29065 1.480, J1242 1.484, J29066 1.490, J9595 1.496; seven injector rack gages: J24889 .345, J24882 .385, J23190 .454, J33156 .465, J25559 .570, J29063 .594, J25560 .636; one, J21100-D, push rod adjusting wrench set; one, J9708-01, valve lash feeler gage set; one, J8932-01, fuel line nut socket; one, J25558, throttle delay pin gage; one, J5345-12, Spanner nut socket; one, J5407, governor gap gage (.170); one, J23478, governor gap gage (200); one, J3172, feeler gage set (.0015 to .015); one, J4657-5, adjusting wrench 3/8 by 3/8 inch; and one, J4756-6, adjusting wrench 7/16 by 7/16 inch.

00-785-3895

10 piece, kit consists of: one 5CP midget pliers; one ea: FB303, FB305, FB316B gages; one, DS806, open end wrench; one, HB5, ignition point file; one, MD18A, distributor adjusting tool; one, SS5A, screw starter; one, SSD2, screw starter; and a C111C Vinyl-fabric kit bag.

00-892-4950

## TOOL KIT, WELDER'S

35 Components.

00-754-0661

## TOOL SET, AIR COMPRESSOR

Consists of: one piston rod installing tool assembly; piston rod packing removal tool; pulley puller; first stage liner setter; second stage liner setter; first stage liner puller assembly; and a second stage liner puller assembly.

01-075-1220

## TORQUE SCREWDRIVER KIT

Micrometer scale calibration of all units. End item ID TS-100; 2 ounce increments. Kit includes: hexagon keys: .028, .035, .050, 1/16, and 5/64; sockets: 3/32, 1/4, and 5/16; screwdriver: .080, .100, .134, and .185; Phillips 0 and 1; adapters HW-18 and HW-19; with carrying case.

01-007-8999



# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-001-0008	1-157	00-008-55911	1-224	00-014-4615	1-165	00-023-4276	1-65
00-001-0009	1-157	00-008-5677	1-225	00-015-7793	1-49	00-023-4277	1-65
00-001-0056	1-152	00-008-6037	1-93	00-016-3627	1-236	00-023-4278	1-66
00-001-2655	1-243	00-008-8818	1-157	00-016-6382	1-244	00-023-4279	1-65
00-001-3733	1-249	00-008-9832	1-175	00-016-6554	1-224	00-023-4280	1-65
00-001-3954	1-157	00-008-9834	1-175	00-016-7582	1-244	00-023-4281	1-65
00-001-3956	1-168	00-008-9847	1-161	00-016-7654	1-224	00-023-4810	1-34
00-001-4496	1-169	00-008-9853	1-157	00-016-7657	1-224	00-023-6669	1-34
00-001-4662	1-39	00-008-9854	1-157	00-017-3640	1-224	00-023-7007	1-34
00-001-4665	1-37	00-008-9855	1-157	00-017-3809	1-224	00-023-9263	1-50
00-001-7740	1-158	00-008-9856	1-157	00-017-3827	1-224	00-024-3971	1-151
00-001-7778	1-161	00-008-9857	1-157	00-017-3921	1-224	00-024-9528	1-235
00-003-0614	1-44	00-009-0369	1-145	00-017-3927	1-224	00-024-9531	1-235
00-003-0706	1-81	00-009-2132	1-168	00-017-3932	1-224	00-024-9681	1-214
00-003-5919	1-144	00-009-2133	1-168	00-017-3934	1-224	00-025-1092	1-164
00-003-6293	1-93	00-009-2334	1-55	00-017-3935	1-224	00-025-3364	1-187
00-003-6994	1-142	00-009-2857	1-224	00-017-8234	1-147	00-027-1364	1-53
00-003-8324	1-196	00-009-3386	1-157	00-018-0529	1-230	00-027-3401	1-34
00-003-8829	1-143	00-009-3393	1-168	00-018-0575	1-230	00-027-4028	1-33
00-003-8830	1-143	00-009-3743	1-244	00-018-0952	1-214	00-027-7423	1-34
00-004-0737	1-161	00-009-5044	1-222	00-018-1519	1-249	00-027-8142	1-34
00-004-2797	1-167	00-009-5217	1-157	00-018-2141	1-113	00-027-8143	1-34
00-004-2798	1-143	00-009-7238	1-157	00-018-2142	1-113	00-027-8758	1-34
00-004-2799	1-167	00-009-7771	1-40	00-018-2162	1-137	00-028-7021	1-142
00-004-2800	1-167	00-009-8259	1-167	00-018-9566	1-169	00-028-9089	1-213
00-004-4265	1-172	00-010-3867	1-169	00-019-1506	1-87	00-030-2738	1-246
00-004-5095	1-39	00-010-4005	1-256	00-019-4233	1-64	00-030-3381	1-33
00-004-5636	1-225	00-010-5082	1-225	00-019-4234	1-64	00-030-6582	1-110
00-004-6542	1-161	00-010-7913	1-239	00-019-4237	1-64	00-030-6617	1-265
00-004-7021	1-175	00-010-7914	1-239	00-019-4239	1-64	00-030-7942	1-236
00-004-8238	1-142	00-010-7915	1-239	00-019-4318	1-64	00-031-7634	1-125
00-004-8282	1-194	00-011-2084	1-238	00-019-4327	1-64	00-032-1517	1-176
00-004-9981	1-249	00-011-2304	1-169	00-019-4328	1-64	00-033-2801	1-28
00-005-0836	1-168	00-011-2578	1-169	00-019-4339	1-64	00-033-5606	1-269
00-005-1025	1-233	00-011-3175	1-169	00-019-4343	1-64	00-033-5607	1-269
00-005-5490	1-43	00-011-3176	1-169	00-019-4383	1-64	00-033-9851	1-34
00-005-5513	1-145	00-011-3177	1-169	00-019-4384	1-58	00-034-1865	1-29
00-005-8054	1-230	00-011-3178	1-169	00-019-5232	1-221	00-035-9897	1-182
00-005-8276	1-46	00-011-3179	1-169	00-019-6648	1-40	00-035-9916	1-182
00-006-0429	1-133	00-011-4627	1-168	00-020-2733	1-132	00-036-1323	1-183
00-006-2587	1-87	00-011-5860	1-249	00-020-4270	1-151	00-036-1516	1-183
00-006-4536	1-238	00-011-8538	1-168	00-021-2041	1-250	00-036-1526	1-183
00-006-4587	1-44	00-011-9935	1-33	00-021-2410	1-65	00-036-1532	1-183
00-006-7906	1-156	00-012-3571	1-113	00-022-2518	1-119	00-036-1545	1-182
00-006-9373	1-148	00-012-4013	1-241	00-022-2521	1-119	00-036-1559	1-182
00-006-9966	1-238	00-012-4016	1-241	00-022-2522	1-119	00-036-1640	1-182
00-007-2199	1-147	00-012-4534	1-40	00-022-2800	1-164	00-036-1644	1-183
00-007-2324	1-28	00-012-4535	1-40	00-022-2946	1-117	00-036-1687	1-183
00-007-3045	1-46	00-013-6969	1-162	00-022-3082	1-109	00-036-1699	1-181
00-007-3217	1-44	00-013-6970	1-162	00-022-9401	1-40	00-036-6334	1-40
00-007-5752	1-230	00-013-7464	1-128	00-022-9794	1-240	00-039-5702	1-131
00-008-0705	1-224	00-013-7743	1-39	00-023-4022	1-34	00-040-8453	1-118
00-008-4860	1-27	00-014-4303	1-168		1-34	00-042-0440	1-34

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-042-0901	1-33	00-054-2382	1-47	00-061-4454	1-128	00-073-3212	1-132
00-042-4806	1-34	00-054-3830	1-139	00-061-7716	1-175	00-073-6356	1-25
00-042-4807	1-34	00-054-7503	1-272	00-061-7717	1-175	00-074-2143	1-47
00-042-5050	1-41	00-054-7505	1-273	00-061-8541	1-227	00-074-2167	1-48
00-042-5051	1-41	00-054-7506	1-272	00-061-8542	1-227	00-076-3270	1-243
00-042-7882	1-95	00-054-7507	1-272	00-061-8543	1-227	00-077-1269	1-27
00-042-8988	1-169	00-054-7512	1-273	00-061-8544	1-227	00-077-8373	1-48
00-043-0512	1-47	00-054-7513	1-273	00-061-8545	1-227	00-079-3400	1-271
00-043-3750	1-168	00-054-7514	1-272	00-061-8546	1-227	00-079-4475	1-40
00-044-1718	1-243	00-054-7515	1-272	00-062-0813	1-239	00-079-4598	1-230
00-044-2269	1-33	00-054-7516	1-273	00-062-1291	1-155	00-079-4599	1-230
00-044-2385	1-48	00-054-7519	1-273	00-062-5229	1-47	00-079-4600	1-230
00-044-4263	1-48	00-054-7520	1-273	00-062-5413	1-240	00-079-4601	1-238
00-045-0596	1-262	00-054-7521	1-273	00-062-5661	1-203	00-079-4602	1-238
00-045-3575	1-3	00-054-7522	1-273	00-062-8381	1-27	00-079-8814	1-143
00-045-5278	1-152	00-054-7523	1-273	00-062-9481	1-139	00-079-9461	1-238
00-045-6527	1-57	00-054-7526	1-272	00-063-3037	1-220	00-079-9960	1-36
00-046-4041	1-47	00-054-7650	1-148	00-064-4470	1-28	00-080-3090	1-154
00-048-1788	1-162	00-054-7713	1-196	00-064-5562	1-43	00-080-4203	1-139
00-050-4203	1-162	00-054-8192	1-45	00-064-8265	1-27	00-080-5799	1-152
00-050-4205	1-163	00-055-1642	1-172	00-065-0980	1-257	00-080-8811	1-27
00-050-4207	1-163	00-055-2167	1-65	00-065-4903	1-229	00-080-9807	1-94
00-050-4208	1-162	00-055-2172	1-64	00-065-5088	1-98	00-080-9818	1-87
00-051-3858	1-223	00-055-5114	1-196	00-066-0242	1-246	00-081-1739	1-263
00-051-4670	1-139	00-055-7042	1-269	00-066-0495	1-111	00-081-2305	1-251
00-051-4678	1-146	00-055-8654	1-196	00-066-0735	1-146	00-081-2307	1-251
00-051-4712	1-139	00-056-3237	1-243	00-066-4396	1-113	00-081-2309	1-251
00-051-5024	1-272	00-056-3935	1-229	00-066-4759	1-136	00-081-5436	1-27
00-051-5025	1-272	00-056-8479	1-193	00-066-6034	1-114	00-081-5893	1-147
00-051-5026	1-273	00-057-0664	1-162	00-066-8329	1-49	00-081-9675	1-28
00-051-5209	1-145	00-057-3074	1-152	00-066-8363	1-49	00-082-0655	1-99
00-051-5542	1-138	00-057-5167	1-57	00-066-8367	1-49	00-082-0656	1-99
00-051-5748	1-257	00-057-5555	1-169	00-066-8656	1-48	00-082-1811	1-226
00-051-5749	1-257	00-057-6456	1-147	00-066-8659	1-48	00-082-5963	1-88
00-051-7122	1-90	00-057-8802	1-26	00-067-0454	1-139	00-082-5987	1-147
00-051-8568	1-147	00-058-0729	1-46	00-067-6375	1-133	00-082-5995	1-147
00-051-9757	1-49	00-058-1837	1-77	00-067-7650	1-154	00-082-8526	1-242
00-051-9758	1-49	00-058-3509	1-187	00-067-9801	1-168	00-083-0042	1-216
00-052-0350	1-154	00-058-3630	1-187	00-068-7906	1-93	00-083-1282	1-38
00-052-0809	1-48	00-058-3737	1-16	00-068-7907	1-93	00-083-8773	1-159
00-052-1581	1-16	00-059-4829	1-272	00-069-2034	1-124	00-084-9394	1-121
00-052-3423	1-154	00-059-5995	1-80	00-069-5815	1-56	00-085-2872	1-195
00-052-3776	1-119	00-059-5996	1-79	00-070-6918	1-191	00-087-0697	1-242
00-052-4834	1-147	00-059-6354	1-35	00-070-6920	1-191	00-087-1022	1-250
00-052-7072	1-98	00-059-6377	1-13	00-071-4464	1-90	00-087-1469	1-131
00-052-8228	1-140	00-059-6711	1-236	00-071-4475	1-90	00-087-1470	1-131
00-053-0379	1-148	00-060-2004	1-239	00-071-5184	1-98	00-087-1644	1-132
00-053-0380	1-162	00-060-2590	1-28	00-071-8018	1-27	00-087-1645	1-132
00-053-0418	1-148	00-060-5754	1-145	00-071-8244	1-155	00-087-4106	1-234
00-053-1808	1-233	00-060-6423	1-221	00-072-0331	1-79	00-087-9122	1-139
00-053-1919	1-170	00-061-0412	1-167	00-072-0369	1-81	00-088-3736	1-162
00-053-4577	1-138	00-061-0414	1-167	00-073-3164	1-174	00-088-4554	1-145
00-053-5738	1-94	00-061-2082	1-140	00-073-3209	1-132	00-088-8803	1-159

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-088-8805	1-159	00-105-3814	1-89	00-116-7692	1-243	00-132-5808	1-230
00-088-8807	1-159	00-105-3815	1-89	00-116-7841	1-231	00-132-6328	1-230
00-088-9393	1-235	00-105-8238	1-28	00-117-2423	1-28	00-132-6708	1-55
00-089-0874	1-235	00-105-9948	1-56	00-117-3414	1-272	00-132-6913	1-224
00-089-2022	1-139	00-106-1823	1-27	00-117-3428	1-250	00-132-9162	1-98
00-089-3663	1-252	00-106-2050	1-195	00-117-3959	1-145	00-132-9163	1-98
00-089-5774	1-41	00-106-2051	1-195	00-117-4550	1-171	00-132-9171	1-95
00-089-7615	1-122	00-106-4416	1-162	00-118-6501	1-172	00-132-9173	1-95
00-089-7963	1-117	00-106-4417	1-148	00-118-8885	1-131	00-132-9179	1-99
00-089-8132	1-273	00-106-5671	1-266	00-118-8895	1-131	00-132-9180	1-99
00-089-9177	1-138	00-106-7359	1-133	00-118-8897	1-131	00-132-9181	1-99
00-090-0465	1-155	00-106-7360	1-133	00-119-0511	1-147	00-132-9192	1-98
00-090-0832	1-144	00-106-7381	1-130	00-119-9854	1-162	00-132-9194	1-98
00-090-1337	1-64	00-106-7383	1-130	00-121-7487	1-145	00-132-9195	1-98
00-092-3883	1-175	00-106-9341	1-93	00-122-1681	1-113	00-132-9196	1-98
00-093-5751	1-132	00-106-9342	1-93	00-122-6474	1-26	00-132-9199	1-98
00-096-2668	1-108	00-106-9361	1-93	00-122-7037	1-12	00-132-9200	1-98
00-096-8563	1-194	00-106-9402	1-93		1-45	00-132-9201	1-98
00-097-4136	1-245	00-106-9407	1-93	00-124-3423	1-29	00-132-9202	1-98
00-098-4326	1-206	00-106-9409	1-93	00-124-5613	1-267	00-132-9203	1-98
00-100-0263	1-39	00-106-9411	1-93	00-124-5618	1-267	00-132-9215	1-98
00-100-0512	1-39	00-106-9459	1-88	00-124-5644	1-267	00-132-9948	1-151
00-100-0514	1-39	00-106-9472	1-88	00-125-2640	1-146	00-133-0097	1-238
00-100-0534	1-39	00-106-9474	1-88	00-125-4770	1-145	00-133-0098	1-238
00-100-0535	1-39	00-107-7568	1-34	00-125-5374	1-38	00-133-0144	1-238
00-100-0542	1-39	00-107-7580	1-35	00-125-8571	1-25	00-133-0351	1-238
00-100-0560	1-39	00-107-7706	1-139	00-125-8751	1-113	00-133-0673	1-150
00-100-0580	1-39	00-108-9225	1-35	00-126-1701	1-272	00-133-2144	1-248
00-100-0650	1-39	00-108-9247	1-35	00-126-1750	1-272	00-133-9264	1-140
00-100-3136	1-39	00-109-1180	1-35	00-126-1761	1-272	00-134-1207	1-254
00-100-3137	1-39	00-109-1340	1-36	00-126-1765	1-272	00-134-8886	1-161
00-100-3529	1-39	00-109-3857	1-29	00-126-1766	1-272	00-134-9201	1-57
00-100-3530	1-39	00-109-7072	1-35	00-126-1769	1-272	00-134-9202	1-58
00-100-3537	1-39	00-110-8922	1-48	00-126-1772	1-272	00-137-9140	1-230
00-100-3578	1-39	00-111-7785	1-158	00-126-1773	1-272	00-138-5552	1-253
00-100-3585	1-39	00-112-0079	1-183	00-126-1774	1-272	00-138-7118	1-114
00-100-3586	1-39	00-112-0171	1-110	00-126-2076	1-233	00-139-3885	1-145
00-100-3621	1-39	00-112-9599	1-231	00-126-2797	1-272	00-140-3731	1-139
00-100-6151	1-33	00-113-0575	1-168	00-126-3554	1-126	00-140-3856	1-127
00-100-6155	1-33	00-113-4959	1-250	00-127-4616	1-27	00-140-4484	1-150
00-101-4641	1-36	00-113-8007	1-25	00-127-4633	1-27	00-140-7066	1-145
00-103-1978	1-144	00-113-8290	1-114	00-128-7982	1-1	00-141-1909	1-114
00-103-9743	1-241	00-114-2456	1-152	00-129-6049	1-87	00-141-2529	1-95
00-103-9782	1-250	00-114-4049	1-165	00-130-5189	1-27	00-141-7152	1-93
00-104-0196	1-267	00-115-0013	1-28	00-130-6801	1-145	00-141-7218	1-82
00-104-4335	1-48	00-115-2356	1-206	00-132-0396	1-230	00-141-8258	1-199
00-104-6259	1-140	00-115-2357	1-206	00-132-0870	1-64	00-141-8311	1-135
00-104-7393	1-167	00-115-2358	1-206	00-132-0871	1-64	00-142-1003	1-168
00-104-8732	1-114	00-115-2454	1-184	00-132-0872	1-64	00-142-1193	1-171
00-104-9084	1-98	00-115-2594	1-90	00-132-1331	1-55	00-142-1195	1-171
00-105-3212	1-132	00-115-2944	1-114	00-132-1724	1-27	00-142-1196	1-171
00-105-3812	1-89	00-115-5148	1-16	00-132-5218	1-230	00-142-1197	1-171
00-105-3813	1-89	00-116-6208	1-21	00-132-5451	1-230	00-142-1203	1-171

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-142-1204	1-171	00-149-5619	1-88	00-160-8283	1-26	00-171-9774	1-85
00-142-1219	1-127	00-149-8183	1-64	00-160-8285	1-26	00-171-9775	1-85
00-142-1238	1-125	00-149-8186	1-59	00-160-8286	1-28	00-171-9819	1-194
00-142-1505	1-170	00-149-8196	1-58	00-160-8296	1-27	00-172-0001	1-162
00-142-1831	1-170	00-149-8197	1-58	00-161-6909	1-219	00-172-0010	1-162
00-142-1958	1-154	00-149-8201	1-59	00-161-6912	1-219	00-172-0015	1-163
00-142-1960	1-154	00-150-7163	1-70	00-162-2202	1-219	00-172-0022	1-162
00-142-2134	1-182	00-150-7164	1-69	00-162-2203	1-218	00-172-0025	1-163
00-142-2167	1-168	00-151-8431	1-39	00-162-2205	1-213	00-172-0028	1-163
00-142-2690	1-170	00-151-9772	1-108	00-162-2207	1-219	00-172-0031	1-163
00-142-3010	1-130	00-152-2418	1-249	00-162-5427	1-97	00-172-0034	1-163
00-142-4390	1-39	00-152-2432	1-153	00-162-5428	1-97	00-172-0040	1-162
00-142-4949	1-107	00-152-2437	1-248	00-162-5429	1-97	00-172-0041	1-163
00-142-4962	1-255	00-155-6230	1-34	00-162-5430	1-97	00-172-0042	1-163
00-142-4972	1-255	00-155-6267	1-34	00-162-5431	1-97	00-172-0043	1-162
00-142-4999	1-217	00-155-6283	1-34	00-162-5432	1-97	00-172-0044	1-162
00-142-5010	1-217	00-155-6298	1-34	00-162-9668	1-97	00-172-0045	1-163
00-142-5015	1-217	00-155-6302	1-34	00-163-0800	1-96	00-172-0046	1-163
00-142-5164	1-150	00-156-0049	1-210	00-163-4348	1-57	00-172-0047	1-163
00-142-5207	1-150	00-156-0052	1-210	00-165-3910	1-224	00-172-0049	1-162
00-142-5357	1-246	00-156-0059	1-210		1-224	00-172-0058	1-163
00-142-6115	1-94	00-156-0062	1-211		1-224	00-172-1835	1-168
00-142-6341	1-89	00-156-0063	1-211		1-224	00-172-1971	1-28
00-142-6342	1-89	00-156-0065	1-212		1-224	00-172-2761	1-42
00-142-6485	1-89	00-156-0131	1-210		1-224	00-172-3540	1-157
00-142-6486	1-89	00-156-0215	1-210		1-224	00-172-3544	1-157
00-143-3830	1-135	00-156-0969	1-222	00-165-3912	1-224	00-172-5291	1-70
00-143-3883	1-165	00-156-0981	1-222		1-224	00-172-5292	1-70
00-143-4353	1-111	00-156-1851	1-37	00-165-3930	1-250	00-173-1884	1-145
00-143-4391	1-117	00-156-5044	1-34	00-165-4098	1-252	00-173-4890	1-270
00-144-4948	1-159	00-156-5046	1-34	00-165-4186	1-56	00-174-0339	1-179
00-144-5207	1-221	00-156-5048	1-34	00-165-5605	1-88	00-174-0468	1-83
00-144-8518	1-35	00-156-8023	1-36	00-165-5607	1-88	00-174-1232	1-93
00-144-8519	1-35	00-156-8039	1-36	00-165-5629	1-87	00-174-1365	1-117
00-144-8589	1-35	00-157-1102	1-272	00-165-6019	1-90	00-174-1831	1-246
00-144-8603	1-34	00-157-1103	1-272	00-166-5888	1-139	00-174-1834	1-246
00-144-8623	1-34	00-157-1104	1-272	00-166-5892	1-139	00-174-1854	1-71
00-144-8631	1-34	00-157-1108	1-272	00-166-9835	1-139	00-174-1858	1-71
00-144-8648	1-34	00-157-1110	1-272	00-167-4725	1-139	00-174-5610	1-27
00-144-8663	1-35	00-157-1228	1-272	00-167-4726	1-139	00-174-5937	1-164
00-144-8869	1-34	00-157-3138	1-230	00-168-3444	1-139	00-174-5939	1-164
00-145-5721	1-98	00-158-8161	1-34	00-169-0816	1-98	00-174-5941	1-164
00-146-6557	1-238	00-158-8255	1-34	00-169-2986	1-233	00-174-5943	1-164
00-146-6558	1-238	00-158-8265	1-34	00-169-5776	1-250	00-174-6747	1-81
00-148-4905	1-153	00-158-8269	1-34	00-169-8275	1-200	00-176-7910	1-61
00-148-7917	1-250	00-158-8295	1-36	00-169-9296	1-97	00-176-7911	1-61
00-148-9488	1-250	00-158-8303	1-36	00-169-9297	1-97	00-176-7912	1-61
00-148-9489	1-250	00-159-0009	1-165	00-169-9298	1-97	00-176-7913	1-61
00-148-9844	1-238	00-159-1636	1-39	00-170-7886	1-70	00-177-1721	1-139
00-148-9942	1-15	00-159-9396	1-39	00-171-4427	1-87	00-177-5945	1-142
00-149-5574	1-97	00-159-9462	1-39	00-171-4506	1-87	00-177-6870	1-232
00-149-5583	1-87	00-160-1262	1-97	00-171-4512	1-88	00-177-6966	1-238
00-149-5584	1-87	00-160-8282	1-26	00-171-4912	1-99	00-177-6967	1-230



# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-177-7028	1-230	00-180-0949	1-215	00-185-0222	1-89	00-187-4191	1-169
00-177-7029	1-238	00-180-1019	1-243	00-185-0476	1-97	00-187-4210	1-169
00-177-7033	1-271	00-180-1020	1-243	00-185-0481	1-97	00-187-4231	1-169
00-177-7095	1-238	00-180-2101	1-28	00-185-0482	1-97	00-187-4232	1-169
00-177-7286	1-219	00-180-2892	1-208	00-185-0487	1-97	00-187-4279	1-139
00-177-8962	1-272	00-180-2936	1-223	00-185-0488	1-97	00-187-4283	1-139
00-177-8963	1-272	00-180-2949	1-226	00-185-0489	1-97	00-187-7123	1-246
00-177-8967	1-272	00-180-2951	1-227	00-185-0490	1-97	00-187-7124	1-246
00-177-8968	1-272	00-180-6560	1-34	00-186-1119	1-39	00-187-7126	1-246
00-178-0046	1-272	00-180-6561	1-34	00-186-3024	1-149	00-187-7129	1-246
00-179-0768	1-88	00-180-6566	1-36	00-186-3541	1-191	00-187-7130	1-246
00-179-6829	1-29	00-181-2852	1-25	00-186-3542	1-185	00-187-7131	1-246
00-180-0548	1-260	00-181-2856	1-25	00-186-4203	1-217	00-187-7134	1-246
00-180-0681	1-245	00-181-6755	1-224	00-186-4204	1-217	00-187-7568	1-156
00-180-0705	1-240	00-181-6764	1-224	00-186-4205	1-217	00-187-7570	1-156
00-180-0706	1-240	00-181-8911	1-195	00-186-4206	1-217	00-187-7571	1-156
00-180-0727	1-240	00-181-8912	1-195	00-186-4214	1-216	00-187-7609	1-156
00-180-0728	1-240	00-181-8920	1-195	00-186-4215	1-216	00-187-7612	1-156
00-180-0729	1-240	00-181-8934	1-194	00-186-6687	1-216	00-187-7613	1-156
00-180-0730	1-240	00-181-8935	1-194	00-186-6697	1-216	00-187-7614	1-156
00-180-0777	1-226	00-181-8937	1-194	00-186-7105	1-210	00-187-7616	1-156
00-180-0778	1-226	00-181-9140	1-140	00-186-7107	1-206	00-187-7617	1-156
00-180-0779	1-226	00-182-4848	1-21	00-186-7783	1-166	00-187-7618	1-156
00-180-0780	1-226	00-182-9021	1-166	00-186-8167	1-207	00-187-7648	1-156
00-180-0798	1-240	00-183-6991	1-197	00-186-8169	1-207	00-187-7651	1-156
00-180-0831	1-214	00-183-6995	1-197	00-186-8170	1-207	00-187-7652	1-156
00-180-0876	1-243	00-183-7537	1-33	00-186-9381	1-87	00-187-7654	1-156
00-180-0881	1-243	00-183-9175	1-33	00-186-9495	1-143	00-188-1182	1-245
00-180-0897	1-223	00-184-1427	1-254	00-186-9831	1-166	00-188-2524	1-207
00-180-0905	1-223	00-184-3476	1-87	00-186-9963	1-159	00-188-3239	1-234
00-180-0907	1-223	00-184-8383	1-224	00-186-9980	1-159	00-188-3509	1-169
00-180-0908	1-223	00-184-8384	1-225	00-186-9997	1-160	00-188-8245	1-185
00-180-0909	1-223	00-184-8397	1-225	00-187-0087	1-143	00-188-8247	1-191
00-180-0915	1-215	00-184-8398	1-225	00-187-0088	1-143	00-188-8248	1-191
00-180-0920	1-215	00-184-8403	1-225	00-187-0486	1-166	00-188-8262	1-197
00-180-0921	1-215	00-184-8405	1-225	00-187-0489	1-166	00-188-8450	1-241
00-180-0922	1-215	00-184-8410	1-225	00-187-0840	1-143	00-189-2588	1-176
00-180-0923	1-215	00-184-8438	1-246	00-187-1016	1-228	00-189-2592	1-176
00-180-0924	1-215	00-184-8548	1-246	00-187-1033	1-228	00-189-2595	1-176
00-180-0925	1-215	00-184-8549	1-246	00-187-1034	1-228	00-189-2619	1-176
00-180-0926	1-215	00-184-8631	1-246	00-187-2628	1-63	00-189-2624	1-176
00-180-0927	1-215	00-184-9107	1-190	00-187-2629	1-63	00-189-2634	1-176
00-180-0933	1-215	00-184-9108	1-190	00-187-2630	1-63	00-189-2729	1-168
00-180-0934	1-215	00-184-9185	1-197	00-187-2631	1-63	00-189-2733	1-168
00-180-0935	1-215	00-184-9186	1-197	00-187-2632	1-63	00-189-2736	1-168
00-180-0937	1-215	00-184-9403	1-234	00-187-2633	1-63	00-189-2737	1-168
00-180-0938	1-215	00-184-9407	1-214	00-187-2634	1-63	00-189-2738	1-168
00-180-0939	1-215	00-184-9553	1-89	00-187-2636	1-63	00-189-2739	1-168
00-180-0941	1-215	00-184-9557	1-89	00-187-2637	1-63	00-189-3029	1-171
00-180-0942	1-215	00-184-9558	1-89	00-187-3588	1-170	00-189-3030	1-171
00-180-0943	1-215	00-184-9807	1-93	00-187-3592	1-171	00-189-3031	1-171
00-180-0944	1-215	00-184-9818	1-97	00-187-3600	1-170	00-189-3032	1-171
00-180-0945	1-215	00-184-9819	1-97	00-187-4102	1-139	00-189-3033	1-171

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-189-3034	1-171	00-189-7913	1-243	00-189-9278	1-257	00-191-2944	1-186
00-189-3036	1-171	00-189-7914	1-243	00-189-9279	1-257	00-191-5244	1-127
00-189-3037	1-171	00-189-7917	1-243	00-189-9280	1-257	00-193-0875	1-149
00-189-3039	1-171	00-189-7920	1-242	00-189-9281	1-257	00-193-2709	1-165
00-189-3040	1-171	00-189-7922	1-242	00-189-9282	1-257	00-193-2710	1-165
00-189-3041	1-171	00-189-7924	1-243	00-189-9283	1-257	00-193-2711	1-165
00-189-3042	1-171	00-189-7927	1-243	00-189-9284	1-257	00-193-2713	1-165
00-189-3045	1-171	00-189-7931	1-243	00-189-9285	1-257	00-193-2714	1-165
00-189-3120	1-259	00-189-7932	1-243	00-189-9286	1-257	00-193-2715	1-166
00-189-3128	1-259	00-189-7934	1-243	00-189-9287	1-257	00-193-2716	1-165
00-189-3165	1-259	00-189-7935	1-243	00-189-9288	1-257	00-193-2717	1-165
00-189-3166	1-259	00-189-7946	1-243	00-189-9289	1-257	00-193-2719	1-166
00-189-3167	1-259	00-189-7985	1-243	00-189-9290	1-257	00-193-6972	1-163
00-189-3168	1-259	00-189-8609	1-242	00-189-9291	1-257	00-194-0204	1-149
00-189-3169	1-259	00-189-8610	1-242	00-189-9292	1-257	00-194-0205	1-149
00-189-3194	1-259	00-189-9181	1-256	00-189-9293	1-257	00-194-0206	1-149
00-189-3195	1-259	00-189-9183	1-256	00-189-9294	1-257	00-194-0209	1-149
00-189-3196	1-259	00-189-9186	1-256	00-189-9295	1-257	00-194-0215	1-149
00-189-3197	1-259	00-189-9187	1-256	00-189-9296	1-257	00-194-0216	1-149
00-189-3198	1-259	00-189-9188	1-256	00-189-9297	1-257	00-194-1217	1-89
00-189-3199	1-259	00-189-9189	1-256	00-189-9298	1-257	00-194-1645	1-228
00-189-3200	1-259	00-189-9246	1-257	00-189-9299	1-257	00-194-1648	1-228
00-189-3201	1-259	00-189-9247	1-257	00-189-9300	1-257	00-194-8911	1-139
00-189-3204	1-259	00-189-9248	1-257	00-189-9301	1-257	00-195-0457	1-39
00-189-3206	1-259	00-189-9249	1-257	00-189-9302	1-257	00-196-0881	1-149
00-189-3207	1-259	00-189-9250	1-257	00-189-9303	1-257	00-196-0884	1-149
00-189-3210	1-259	00-189-9251	1-257	00-189-9304	1-257	00-196-0888	1-149
00-189-3216	1-259	00-189-9252	1-257	00-189-9305	1-257	00-196-0892	1-149
00-189-3217	1-259	00-189-9253	1-257	00-189-9308	1-256	00-196-0930	1-149
00-189-3218	1-259	00-189-9254	1-257	00-189-9309	1-256	00-196-0936	1-149
00-189-3219	1-259	00-189-9255	1-257	00-189-9310	1-256	00-196-0939	1-149
00-189-3220	1-259	00-189-9256	1-257	00-189-9312	1-256	00-196-0940	1-149
00-189-3221	1-259	00-189-9257	1-257	00-189-9313	1-256	00-196-1468	1-166
00-189-3222	1-259	00-189-9258	1-257	00-189-9314	1-256	00-196-1487	1-166
00-189-3223	1-259	00-189-9259	1-257	00-189-9315	1-256	00-196-1541	1-166
00-189-3224	1-259	00-189-9260	1-257	00-189-9317	1-256	00-196-1963	1-165
00-189-3238	1-259	00-189-9261	1-257	00-189-9318	1-256	00-196-1964	1-165
00-189-4887	1-191	00-189-9262	1-257	00-189-9319	1-256	00-196-1965	1-165
00-189-7383	1-8	00-189-9263	1-257	00-189-9321	1-256	00-196-1967	1-165
00-189-7805	1-262	00-189-9264	1-257	00-189-9322	1-256	00-196-1971	1-165
00-189-7806	1-262	00-189-9265	1-257	00-189-9323	1-256	00-196-1972	1-165
00-189-7807	1-262	00-189-9266	1-257	00-189-9324	1-256	00-196-1973	1-165
00-189-7808	1-262	00-189-9267	1-257	00-189-9325	1-256	00-196-1974	1-165
00-189-7812	1-260	00-189-9268	1-257	00-189-9326	1-256	00-196-1975	1-165
00-189-7814	1-260	00-189-9269	1-257	00-189-9327	1-256	00-196-1976	1-165
00-189-7816	1-260	00-189-9270	1-257	00-190-5164	1-203	00-196-1980	1-165
00-189-7818	1-261	00-189-9271	1-257	00-190-5568	1-157	00-196-1981	1-165
00-189-7819	1-261	00-189-9272	1-257	00-190-5570	1-157	00-196-1982	1-165
00-189-7824	1-260	00-189-9273	1-257	00-190-6432	1-119	00-196-1983	1-165
00-189-7825	1-260	00-189-9274	1-257	00-190-9359	1-51	00-196-1984	1-165
00-189-7826	1-260	00-189-9275	1-257	00-191-0091	1-88	00-196-1985	1-165
00-189-7895	1-224	00-189-9276	1-257	00-191-0494	1-39	00-196-1989	1-165
00-189-7896	1-224	00-189-9277	1-257	00-191-0495	1-39	00-196-1990	1-165

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-196-1991	1-165	00-198-0252	1-39	00-203-2658	1-168	00-203-6220	1-261
00-196-1993	1-165	00-198-1050	1-33	00-203-2661	1-168	00-203-6226	1-261
00-196-1994	1-165	00-198-1187	1-40	00-203-2662	1-168	00-203-6406	1-162
00-196-1996	1-165	00-198-2079	1-34	00-203-2707	1-123	00-203-6431	1-223
00-196-1998	1-165	00-198-2169	1-39	00-203-2709	1-123	00-203-6436	1-223
00-196-1999	1-165	00-198-2170	1-39	00-203-2721	1-126	00-203-6439	1-223
00-196-2000	1-165	00-198-2856	1-34	00-203-3029	1-139	00-203-6500	1-260
00-196-2002	1-165	00-198-5390	1-231	00-203-3129	1-151	00-203-6501	1-260
00-196-2003	1-165	00-198-5391	1-231	00-203-3131	1-151	00-203-6504	1-262
00-196-2006	1-165	00-198-5392	1-231	00-203-3168	1-149	00-203-6506	1-260
00-196-2007	1-165	00-198-5398	1-231	00-203-3171	1-131	00-203-6508	1-260
00-196-2010	1-165	00-198-5400	1-231	00-203-3420	1-147	00-203-6510	1-261
00-196-2014	1-165	00-198-5401	1-231	00-203-3512	1-110	00-203-6511	1-261
00-196-2015	1-165	00-198-5404	1-231	00-203-3550	1-147	00-203-6513	1-261
00-196-2017	1-165	00-198-5406	1-231	00-203-3553	1-147	00-203-6626	1-261
00-196-2022	1-166	00-198-5407	1-231	00-203-3558	1-147	00-203-6647	1-261
00-196-2024	1-166	00-198-5409	1-231	00-203-3631	1-142	00-203-7007	1-144
00-196-2028	1-166	00-198-5410	1-231	00-203-3709	1-170	00-203-7074	1-260
00-196-2029	1-166	00-198-5413	1-231	00-203-3804	1-119	00-203-7626	1-172
00-196-2031	1-166	00-199-7768	1-243	00-203-3831	1-168	00-203-8310	1-217
00-196-2035	1-166	00-199-7769	1-243	00-203-3912	1-136	00-203-8338	1-156
00-196-9580	1-143	00-199-7772	1-243	00-203-3920	1-136	00-203-8347	1-156
00-196-9581	1-143	00-200-0485	1-168	00-203-4552	1-210	00-203-8350	1-156
00-196-9584	1-143	00-200-0565	1-137	00-203-4553	1-210	00-203-9642	1-218
00-196-9585	1-143	00-200-1841	1-199	00-203-4554	1-210	00-203-9758	1-211
00-196-9589	1-143	00-201-3351	1-26	00-203-4556	1-210	00-203-9774	1-211
00-197-2919	1-160	00-202-1924	1-94	00-203-4645	1-211	00-203-9804	1-211
00-197-4862	1-140	00-202-2087	1-89	00-203-4647	1-211	00-203-9806	1-211
00-197-4984	1-180	00-202-3339	1-99	00-203-4656	1-227	00-204-0616	1-210
00-197-5344	1-229	00-202-6371	1-195	00-203-4692	1-211	00-204-0623	1-254
00-197-7913	1-27	00-202-6491	1-149	00-203-4714	1-211	00-204-0719	1-211
00-197-9490	1-237	00-202-6492	1-149	00-203-4731	1-211	00-204-0720	1-211
00-197-9497	1-206	00-202-7686	1-127	00-203-4751	1-211	00-204-0722	1-211
00-197-9499	1-206	00-202-7688	1-127	00-203-4781	1-211	00-204-0723	1-211
00-197-9552	1-259	00-202-7702	1-127	00-203-4797	1-247	00-204-0725	1-211
00-197-9553	1-259	00-202-7703	1-127	00-203-4799	1-247	00-204-0726	1-211
00-197-9554	1-259	00-202-7769	1-151	00-203-4802	1-247	00-204-1972	1-165
00-197-9555	1-259	00-202-7858	1-108	00-203-4804	1-247	00-204-1993	1-149
00-197-9556	1-259	00-202-8182	1-124	00-203-4806	1-247	00-204-1999	1-251
00-197-9557	1-259	00-202-8341	1-170	00-203-4807	1-247	00-204-2685	1-212
00-197-9558	1-259	00-202-8470	1-143	00-203-4808	1-247	00-204-3491	1-151
00-197-9559	1-259	00-202-8792	1-150	00-203-4810	1-247	00-204-3855	1-58
00-197-9562	1-259	00-202-8880	1-174	00-203-4811	1-247	00-204-3856	1-58
00-197-9563	1-259	00-202-8967	1-151	00-203-4813	1-247	00-204-3858	1-58
00-197-9564	1-259	00-202-9915	1-156	00-203-4854	1-210	00-204-3859	1-58
00-197-9565	1-259	00-203-0153	1-169	00-203-4935	1-210	00-204-9596	1-187
00-197-9566	1-259	00-203-0177	1-153	00-203-4936	1-210	00-205-4015	1-89
00-197-9567	1-259	00-203-0178	1-154	00-203-4941	1-210	00-208-7495	1-29
00-197-9568	1-259	00-203-0217	1-108	00-203-4948	1-210	00-211-7310	1-96
00-197-9569	1-259	00-203-0565	1-101	00-203-4950	1-210	00-212-3862	1-249
00-197-9570	1-259	00-203-1038	1-125	00-203-5486	1-210	00-212-4992	1-141
00-197-9571	1-259	00-203-1066	1-151	00-203-6212	1-261	00-212-6331	1-148
00-197-9572	1-259	00-203-1586	1-26	00-203-6216	1-262	00-214-2888	1-111

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-215-1133	1-173	00-221-2392	1-173	00-222-2119	1-207	00-223-6731	1-167
00-215-8010	1-151	00-221-2397	1-173	00-222-2120	1-207	00-223-6837	1-233
00-216-5421	1-124	00-221-2398	1-173	00-222-2127	1-207	00-223-6838	1-233
00-216-6132	1-172	00-221-2399	1-173	00-222-2128	1-206	00-223-6986	1-243
00-216-6146	1-172	00-221-2728	1-232	00-222-2220	1-232	00-223-7074	1-149
00-216-6151	1-172	00-221-2731	1-232	00-222-2232	1-233	00-223-7218	1-222
00-216-6152	1-172	00-221-4993	1-158	00-222-2675	1-203	00-223-7396	1-235
00-216-9013	1-181	00-221-4994	1-158	00-222-2708	1-215	00-223-7397	1-235
00-216-9017	1-184	00-221-5012	1-158	00-222-3241	1-223	00-223-7398	1-235
00-216-9018	1-181	00-221-6215	1-159	00-222-3336	1-229	00-223-7782	1-213
00-216-9022	1-182	00-221-6231	1-158	00-222-3792	1-64	00-223-8827	1-213
00-217-2431	1-147	00-221-7040	1-262	00-222-4144	1-63	00-223-8829	1-83
00-217-2433	1-142	00-221-7041	1-262	00-222-4284	1-238	00-223-8846	1-233
00-217-5914	1-114	00-221-7063	1-241	00-222-4400	1-208	00-223-8860	1-226
00-217-7443	1-172	00-221-7097	1-240	00-222-4401	1-208	00-223-8862	1-227
00-217-7462	1-172	00-221-7874	1-261	00-222-4455	1-213	00-223-8870	1-245
00-221-0766	1-97	00-221-7957	1-229	00-222-4479	1-88	00-223-8921	1-226
00-221-0768	1-97	00-221-7958	1-229	00-222-4481	1-88	00-223-8927	1-227
00-221-0771	1-97	00-221-7959	1-229	00-222-4482	1-88	00-223-8928	1-227
00-221-0772	1-97	00-221-7960	1-229	00-222-4490	1-88	00-223-8972	1-203
00-221-0777	1-97	00-221-7966	1-229	00-222-4491	1-88	00-223-8973	1-203
00-221-0778	1-97	00-221-7980	1-248	00-222-4492	1-88	00-223-9255	1-156
00-221-1047	1-209	00-221-7983	1-250	00-222-4493	1-88	00-223-9480	1-244
00-221-1049	1-208	00-221-8036	1-231	00-222-4494	1-88	00-223-9482	1-244
00-221-1072	1-237	00-221-8121	1-207	00-222-4522	1-208	00-223-9533	1-232
00-221-1075	1-206	00-221-8132	1-206	00-222-5346	1-89	00-223-9556	1-226
00-221-1076	1-206	00-221-8133	1-207	00-222-5347	1-89	00-223-9557	1-226
00-221-1083	1-218	00-221-8763	1-136	00-222-8852	1-239	00-223-9558	1-226
00-221-1085	1-218	00-222-1403	1-224	00-222-8866	1-239	00-223-9559	1-226
00-221-1087	1-218	00-222-1499	1-248	00-222-9466	1-256	00-223-9952	1-225
00-221-1117	1-245	00-222-1534	1-228	00-222-9467	1-256	00-224-0544	1-149
00-221-1119	1-245	00-222-1535	1-228	00-222-9468	1-257	00-224-0545	1-149
00-221-1146	1-238	00-222-1594	1-246	00-222-9469	1-256	00-224-0546	1-149
00-221-1147	1-238	00-222-1595	1-246	00-222-9470	1-256	00-224-0550	1-149
00-221-1148	1-238	00-222-1596	1-246	00-223-0070	1-140	00-224-1372	1-222
00-221-1149	1-238	00-222-1599	1-246	00-223-0989	1-237	00-224-1389	1-222
00-221-1150	1-238	00-222-1601	1-246	00-223-1014	1-237	00-224-1390	1-224
00-221-1151	1-238	00-222-1612	1-223	00-223-1015	1-237	00-224-1393	1-222
00-221-1188	1-206	00-222-1794	1-143	00-223-1016	1-237	00-224-1449	1-259
00-221-1236	1-260	00-222-1819	1-149	00-223-1018	1-237	00-224-1461	1-259
00-221-1372	1-207	00-222-1837	1-165	00-223-1079	1-207	00-224-1532	1-215
00-221-1498	1-214	00-222-1838	1-165	00-223-1084	1-207	00-224-1533	1-233
00-221-1499	1-214	00-222-1839	1-165	00-223-1087	1-206	00-224-1540	1-234
00-221-1503	1-214	00-222-1840	1-165	00-223-1103	1-207	00-224-1541	1-234
00-221-1536	1-232	00-222-1842	1-165	00-223-1945	1-245	00-224-1567	1-235
00-221-1538	1-213	00-222-1843	1-166	00-223-1951	1-245	00-224-1963	1-256
00-221-1542	1-222	00-222-1844	1-166	00-223-4972	1-212	00-224-1965	1-256
00-221-1597	1-227	00-222-1862	1-176	00-223-4987	1-255	00-224-2205	1-185
00-221-2126	1-150	00-222-1866	1-176	00-223-5379	1-213	00-224-2251	1-27
00-221-2127	1-150	00-222-1912	1-168	00-223-6228	1-261	00-224-2482	1-231
00-221-2128	1-150	00-222-1915	1-167	00-223-6281	1-208	00-224-2496	1-231
00-221-2129	1-150	00-222-2117	1-207	00-223-6370	1-219	00-224-2504	1-231
00-221-2130	1-150	00-222-2118	1-207	00-223-6371	1-219	00-224-2510	1-231

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-224-2596	1-248	00-224-8624	1-256	00-227-8095	1-221	00-228-0998	1-261
00-224-2599	1-248	00-224-8924	1-65	00-227-8103	1-221	00-228-1001	1-261
00-224-3102	1-246	00-224-8925	1-65	00-227-8104	1-221	00-228-1004	1-260
00-224-3103	1-247	00-224-8949	1-225	00-227-8105	1-225	00-228-1005	1-260
00-224-3104	1-247	00-224-8950	1-225	00-227-8107	1-225	00-228-1006	1-261
00-224-3105	1-247	00-224-9215	1-245	00-227-8609	1-261	00-228-1007	1-261
00-224-3112	1-246	00-224-9219	1-221	00-227-8611	1-261	00-228-1008	1-261
00-224-3135	1-246	00-224-9326	1-241	00-227-8612	1-261	00-228-1009	1-261
00-224-3136	1-246	00-224-9428	1-89	00-227-8613	1-261	00-228-1014	1-262
00-224-3141	1-246	00-224-9432	1-89	00-227-8618	1-261	00-228-1015	1-262
00-224-3146	1-246	00-224-9440	1-232	00-227-8619	1-261	00-228-1023	1-262
00-224-3148	1-246	00-224-9453	1-236	00-227-8620	1-261	00-228-1024	1-261
00-224-3156	1-247	00-224-9456	1-236	00-227-8621	1-261	00-228-1025	1-262
00-224-3157	1-247	00-224-9486	1-245	00-227-8622	1-261	00-228-1031	1-261
00-224-3158	1-247	00-224-9487	1-245	00-227-8625	1-261	00-228-1032	1-261
00-224-3159	1-247	00-224-9728	1-241	00-227-8627	1-262	00-228-1033	1-261
00-224-3160	1-247	00-224-9926	1-218	00-227-8628	1-262	00-228-1034	1-261
00-224-3161	1-247	00-224-9928	1-218	00-227-8629	1-262	00-228-1039	1-260
00-224-3164	1-247	00-225-1955	1-70	00-227-8631	1-262	00-228-1040	1-260
00-224-3596	1-63	00-225-8596	1-142	00-227-8633	1-262	00-228-1054	1-262
00-224-3730	1-64	00-226-4667	1-188	00-227-9455	1-260	00-228-1055	1-262
00-224-3732	1-64	00-226-5024	1-94	00-227-9471	1-256	00-228-1056	1-262
00-224-3755	1-64	00-226-5606	1-223	00-227-9645	1-256	00-228-1057	1-262
00-224-3763	1-64	00-226-9018	1-267	00-227-9646	1-256	00-228-1106	1-162
00-224-3767	1-64	00-226-9019	1-267	00-227-9647	1-256	00-228-1254	1-27
00-224-3771	1-64	00-226-9021	1-267	00-227-9648	1-256	00-228-1321	1-256
00-224-3776	1-64	00-227-2807	1-39	00-227-9649	1-256	00-228-1325	1-256
00-224-4026	1-257	00-227-2925	1-39	00-227-9650	1-256	00-228-1326	1-256
00-224-4027	1-257	00-227-3240	1-38	00-227-9651	1-256	00-228-1327	1-256
00-224-4028	1-257	00-227-3385	1-39	00-227-9652	1-256	00-228-1328	1-256
00-224-4029	1-257	00-227-4110	1-34	00-227-9653	1-256	00-228-1329	1-256
00-224-4111	1-228	00-227-5037	1-207	00-227-9654	1-256	00-228-1330	1-256
00-224-4113	1-228	00-227-5563	1-80	00-227-9656	1-256	00-228-1331	1-256
00-224-4141	1-228	00-227-6702	1-242	00-227-9658	1-256	00-228-1332	1-256
00-224-4659	1-231	00-227-6703	1-242	00-227-9659	1-256	00-228-1333	1-256
00-224-4748	1-244	00-227-6704	1-242	00-227-9660	1-256	00-228-1334	1-256
00-224-6634	1-230	00-227-6705	1-242	00-227-9662	1-256	00-228-1335	1-256
00-224-7053	1-209	00-227-7097	1-234	00-227-9664	1-256	00-228-1336	1-256
00-224-7055	1-207	00-227-7260	1-262	00-227-9665	1-256	00-228-1337	1-256
00-224-7056	1-207	00-227-7291	1-221	00-227-9666	1-256	00-228-1339	1-256
00-224-7057	1-207	00-227-7293	1-239	00-227-9667	1-256	00-228-1341	1-256
00-224-7058	1-209	00-227-7334	1-239	00-227-9668	1-256	00-228-1343	1-256
00-224-7113	1-260	00-227-7356	1-239	00-227-9669	1-256	00-228-1345	1-256
00-224-7114	1-260	00-227-7377	1-240	00-227-9670	1-256	00-228-1347	1-256
00-224-7370	1-239	00-227-7379	1-248	00-227-9671	1-256	00-228-1349	1-256
00-224-7375	1-239	00-227-7382	1-248	00-227-9672	1-256	00-228-1350	1-256
00-224-7446	1-237	00-227-7393	1-248	00-227-9673	1-256	00-228-1351	1-256
00-224-7777	1-204	00-227-7500	1-70	00-227-9674	1-256	00-228-1357	1-256
00-224-7911	1-214	00-227-7520	1-70	00-228-0517	1-250	00-228-1360	1-256
00-224-8357	1-29	00-227-7521	1-70	00-228-0826	1-168	00-228-1365	1-256
00-224-8358	1-29	00-227-8074	1-225	00-228-0989	1-260	00-228-1373	1-256
00-224-8549	1-123	00-227-8079	1-225	00-228-0995	1-261	00-228-1379	1-256
00-224-8618	1-256	00-227-8088	1-221	00-228-0996	1-261	00-228-1403	1-256

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-228-2323	1-256	00-231-2402	1-149	00-233-9565	1-95	00-234-8912	1-239
00-228-3161	1-213	00-231-2403	1-149	00-233-9566	1-95	00-234-8913	1-239
00-228-5223	1-64	00-231-2404	1-149	00-233-9567	1-95	00-234-9709	1-59
00-228-5228	1-64	00-231-2411	1-149	00-233-9568	1-95	00-235-1482	1-159
00-228-5294	1-64	00-231-2412	1-149	00-233-9578	1-95	00-235-1499	1-170
00-228-5295	1-64	00-231-2413	1-149	00-233-9580	1-95	00-235-4080	1-163
00-228-5296	1-64	00-231-2414	1-149	00-233-9581	1-95	00-235-4120	1-137
00-228-5297	1-64	00-231-2415	1-149	00-233-9687	1-212	00-235-4138	1-138
00-228-5298	1-64	00-231-2416	1-149	00-233-9710	1-216	00-235-5458	1-140
00-228-7009	1-216	00-231-2424	1-149	00-233-9711	1-216	00-235-5637	1-48
00-228-9503	1-246	00-231-2425	1-149	00-233-9712	1-216	00-235-5807	1-242
00-228-9504	1-246	00-231-2426	1-149	00-233-9713	1-216	00-235-5809	1-242
00-228-9505	1-246	00-231-2428	1-149	00-233-9714	1-216	00-235-5822	1-242
00-228-9506	1-246	00-231-2572	1-93	00-233-9716	1-216	00-235-5869	1-242
00-228-9507	1-246	00-231-2581	1-93	00-233-9717	1-216	00-235-5870	1-243
00-228-9508	1-246	00-231-4009	1-159	00-233-9718	1-216	00-235-5878	1-242
00-228-9509	1-246	00-231-4010	1-159	00-233-9721	1-216	00-235-5879	1-242
00-228-9510	1-246	00-231-5868	1-94	00-233-9722	1-216	00-236-0730	1-105
00-228-9511	1-246	00-231-5870	1-94	00-234-0087	1-153	00-236-2041	1-206
00-228-9512	1-246	00-231-5878	1-94	00-234-1927	1-206	00-236-2046	1-210
00-228-9513	1-246	00-231-5886	1-94	00-234-1944	1-206	00-236-2047	1-210
00-228-9514	1-246	00-231-6223	1-150	00-234-1949	1-206	00-236-2127	1-239
00-228-9515	1-246	00-231-9001	1-93	00-234-2526	1-137	00-236-2132	1-240
00-228-9516	1-246	00-231-9005	1-93	00-234-4879	1-254	00-236-2140	1-240
00-228-9517	1-246	00-231-9007	1-93	00-234-5139	1-256	00-236-2261	1-225
00-228-9527	1-246	00-231-9009	1-93	00-234-5140	1-256	00-236-2262	1-242
00-228-9933	1-88	00-231-9012	1-93	00-234-5141	1-256	00-236-2263	1-242
00-228-9943	1-88	00-231-9014	1-93	00-234-6245	1-97	00-236-2264	1-242
00-228-9944	1-88	00-231-9021	1-93	00-234-6522	1-211	00-236-3242	1-239
00-228-9952	1-87	00-232-1974	1-260	00-234-6524	1-211	00-236-3272	1-206
00-228-9963	1-88	00-232-2496	1-28	00-234-6526	1-211	00-236-3273	1-206
00-228-9964	1-88	00-232-3075	1-37	00-234-6528	1-211	00-236-4028	1-257
00-228-9974	1-88	00-232-3428	1-37	00-234-6529	1-211	00-236-4029	1-257
00-228-9975	1-88	00-232-5681	1-243	00-234-6531	1-210	00-236-4048	1-256
00-229-0662	1-135	00-232-5706	1-242	00-234-6534	1-210	00-236-4053	1-257
00-229-2772	1-224	00-232-5959	1-27	00-234-6537	1-210	00-236-4059	1-257
00-229-2773	1-224	00-232-5975	1-26	00-234-6539	1-210	00-236-4069	1-257
00-230-1996	1-165	00-232-6329	1-216	00-234-6544	1-210	00-236-7590	1-229
00-230-6380	1-250	00-232-6343	1-216	00-234-6545	1-211	00-237-0977	1-242
00-230-6385	1-229	00-232-6398	1-257	00-234-6548	1-211	00-237-0978	1-242
00-230-6478	1-138	00-232-6399	1-257	00-234-6549	1-211	00-237-0982	1-243
00-230-6481	1-138	00-232-8161	1-257	00-234-6552	1-211	00-237-0984	1-243
00-230-6482	1-138	00-233-3657	1-215	00-234-6554	1-211	00-237-3593	1-136
00-230-6520	1-137	00-233-5984	1-94	00-234-6555	1-211	00-237-4956	1-237
00-230-6545	1-137	00-233-5987	1-94	00-234-6557	1-211	00-237-4969	1-229
00-230-6546	1-137	00-233-6425	1-257	00-234-6559	1-211	00-237-4973	1-242
00-230-6574	1-137	00-233-6455	1-257	00-234-6560	1-211	00-237-6063	1-25
00-230-6577	1-136	00-233-6555	1-93	00-234-6562	1-211	00-237-6985	1-239
00-230-7843	1-227	00-233-6829	1-230	00-234-6567	1-210	00-237-6995	1-236
00-230-7855	1-228	00-233-7683	1-210	00-234-6569	1-210	00-237-8147	1-262
00-231-2253	1-69	00-233-7749	1-211	00-234-6570	1-210	00-237-8148	1-262
00-231-2386	1-149	00-233-9110	1-206	00-234-6763	1-93	00-237-8149	1-262
00-231-2400	1-149	00-233-9126	1-29	00-234-8910	1-239	00-237-8172	1-239

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-237-8173	1-239	00-239-3269	1-211	00-240-5905	1-143	00-241-9158	1-210
00-237-8174	1-239	00-239-5093	1-28	00-240-5943	1-213	00-241-9159	1-210
00-237-8263	1-259	00-239-7538	1-211	00-240-6031	1-205	00-241-9160	1-211
00-237-8269	1-259	00-239-7590	1-211	00-240-6051	1-222	00-241-9164	1-211
00-237-8270	1-259	00-239-7602	1-211	00-240-6082	1-237	00-241-9165	1-211
00-237-8272	1-259	00-239-7614	1-211	00-240-6083	1-237	00-241-9166	1-211
00-237-8273	1-259	00-239-7739	1-212	00-240-6104	1-237	00-241-9167	1-211
00-237-8274	1-259	00-239-8240	1-259	00-240-6141	1-210	00-242-0762	1-222
00-237-8573	1-219	00-239-8250	1-234	00-240-6213	1-234	00-242-0763	1-237
00-237-8702	1-218	00-239-8251	1-234	00-240-6217	1-235	00-242-0764	1-237
00-237-8741	1-95	00-239-8252	1-234	00-240-7070	1-213	00-242-1118	1-226
00-238-1638	1-56	00-239-8253	1-215	00-240-7073	1-213	00-242-2511	1-15
00-238-3472	1-89	00-239-8254	1-234	00-240-7337	1-256	00-242-2512	1-15
00-238-5350	1-153	00-240-0152	1-222	00-240-7561	1-222	00-242-2828	1-214
00-238-6855	1-90	00-240-0153	1-222	00-240-8443	1-256	00-242-2974	1-260
00-238-7696	1-219	00-240-0154	1-222	00-240-8702	1-221	00-242-3057	1-214
00-238-7732	1-93	00-240-0155	1-222	00-240-8703	1-221	00-242-3137	1-225
00-238-7734	1-93	00-240-0156	1-222	00-240-8705	1-225	00-242-3242	1-149
00-238-9060	1-2	00-240-1410	1-247	00-240-8716	1-239	00-242-3249	1-247
00-238-9649	1-211	00-240-1411	1-247	00-240-8894	1-237	00-242-3254	1-245
00-238-9658	1-211	00-240-1414	1-245	00-240-8898	1-237	00-242-3256	1-229
00-238-9660	1-211	00-240-1418	1-229	00-241-2582	1-206	00-242-3264	1-250
00-238-9664	1-211	00-240-1532	1-225	00-241-3143	1-229	00-242-3268	1-240
00-238-9666	1-211	00-240-2019	1-93	00-241-3170	1-240	00-242-3330	1-242
00-238-9667	1-211	00-240-2061	1-21	00-241-3179	1-231	00-242-3345	1-242
00-238-9959	1-117	00-240-2142	1-93	00-241-3180	1-231	00-242-3349	1-243
00-239-0016	1-242	00-240-2160	1-93	00-241-3181	1-231	00-242-3351	1-242
00-239-0017	1-242	00-240-2161	1-93	00-241-3185	1-242	00-242-3352	1-242
00-239-0018	1-242	00-240-2164	1-93	00-241-3186	1-242	00-242-3354	1-242
00-239-0021	1-243	00-240-2185	1-93	00-241-3188	1-248	00-242-3433	1-237
00-239-0189	1-144	00-240-3094	1-218	00-241-5856	1-135	00-242-3435	1-237
00-239-0644	1-212	00-240-3096	1-228	00-241-6805	1-49	00-242-3457	1-206
00-239-0785	1-255	00-240-5215	1-226	00-241-7651	1-151	00-242-3789	1-229
00-239-0786	1-255	00-240-5217	1-226	00-241-7675	1-211	00-242-3791	1-229
00-239-2174	1-261	00-240-5219	1-226	00-241-8439	1-93	00-242-3908	1-228
00-239-2762	1-259	00-240-5220	1-226	00-241-9060	1-49	00-242-3915	1-227
00-239-2763	1-259	00-240-5221	1-226	00-241-9132	1-210	00-242-3968	1-126
00-239-2764	1-259	00-240-5222	1-226	00-241-9133	1-210	00-242-4064	1-193
00-239-2765	1-259	00-240-5223	1-226	00-241-9134	1-210	00-242-4100	1-203
00-239-2766	1-259	00-240-5232	1-240	00-241-9135	1-211	00-242-4357	1-127
00-239-2767	1-259	00-240-5268	1-231	00-241-9138	1-211	00-242-4358	1-127
00-239-2768	1-259	00-240-5274	1-231	00-241-9140	1-210	00-242-4359	1-127
00-239-2769	1-259	00-240-5292	1-231	00-241-9143	1-210	00-242-4360	1-127
00-239-2770	1-259	00-240-5300	1-231	00-241-9145	1-210	00-242-4361	1-127
00-239-2772	1-259	00-240-5328	1-245	00-241-9146	1-210	00-242-5384	1-210
00-239-2773	1-259	00-240-5330	1-245	00-241-9147	1-210	00-242-5385	1-210
00-239-2774	1-259	00-240-5336	1-245	00-241-9148	1-210	00-242-5386	1-210
00-239-2775	1-259	00-240-5364	1-229	00-241-9149	1-210	00-242-5387	1-210
00-239-2776	1-259	00-240-5396	1-229	00-241-9150	1-210	00-242-5575	1-97
00-239-2777	1-259	00-240-5530	1-111	00-241-9151	1-210	00-242-5966	1-237
00-239-2778	1-259	00-240-5537	1-110	00-241-9152	1-210	00-242-6666	1-25
00-239-2779	1-259	00-240-5538	1-149	00-241-9153	1-210	00-242-7410	1-231
00-239-2780	1-259	00-240-5540	1-149	00-241-9156	1-210	00-242-7411	1-231

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-242-7618	1-21	00-243-7337	1-243	00-249-2848	1-210	00-252-3508	1-164
00-242-7619	1-21	00-243-7339	1-243	00-249-2849	1-210	00-252-3767	1-125
00-242-8179	1-210	00-243-7340	1-243	00-249-2850	1-210	00-252-3771	1-125
00-242-8185	1-211	00-243-7341	1-243	00-249-2858	1-210	00-252-3776	1-125
00-243-0865	1-205	00-243-7342	1-243	00-249-2987	1-97	00-252-3778	1-125
00-243-0938	1-211	00-243-7343	1-243	00-249-2988	1-97	00-252-4015	1-210
00-243-1349	1-245	00-243-7348	1-243	00-249-2992	1-97	00-252-6888	1-125
00-243-1554	1-94	00-243-7350	1-243	00-249-3873	1-158	00-252-6889	1-124
00-243-1645	1-215	00-243-7965	1-211	00-249-3882	1-158	00-252-7720	1-244
00-243-1648	1-215	00-243-8099	1-211	00-249-3885	1-158	00-252-9621	1-38
00-243-1674	1-243	00-243-8100	1-211	00-249-3890	1-158	00-253-0857	1-125
00-243-1676	1-243	00-243-8757	1-206	00-249-3917	1-158	00-253-2478	1-200
00-243-1686	1-245	00-243-9072	1-245	00-249-3921	1-158	00-253-3152	1-216
00-243-1689	1-225	00-243-9611	1-256	00-249-3957	1-158	00-253-3154	1-216
00-243-1691	1-225	00-243-9612	1-256	00-249-3959	1-158	00-253-3156	1-216
00-243-1693	1-225	00-243-9613	1-256	00-249-3961	1-158	00-253-3158	1-216
00-243-1697	1-225	00-243-9769	1-185	00-249-3968	1-159	00-253-3160	1-216
00-243-2003	1-216	00-244-0764	1-113	00-249-3969	1-159	00-253-3170	1-216
00-243-2004	1-216	00-244-1331	1-1	00-249-3970	1-159	00-253-3172	1-216
00-243-2005	1-216	00-244-1335	1-1	00-249-3972	1-159	00-253-3176	1-216
00-243-2006	1-216	00-244-4860	1-201	00-249-3973	1-159	00-253-3178	1-216
00-243-2007	1-216	00-245-3015	1-211	00-249-3974	1-159	00-253-3190	1-216
00-243-2308	1-255	00-245-4177	1-211	00-249-3976	1-159	00-253-3496	1-151
00-243-2309	1-255	00-245-5205	1-35	00-249-3977	1-159	00-253-5751	1-158
00-243-2326	1-255	00-245-9476	1-128	00-249-3978	1-159	00-253-9653	1-95
00-243-2327	1-255	00-245-9497	1-128	00-249-3979	1-159	00-254-3468	1-212
00-243-2362	1-15	00-245-9542	1-219	00-249-3980	1-159	00-254-4518	1-261
00-243-2395	1-232	00-246-0113	1-28	00-249-3981	1-159	00-254-4612	1-223
00-243-2419	1-222	00-246-0165	1-28	00-249-7492	1-223	00-254-5033	1-57
00-243-2508	1-212	00-246-0565	1-57	00-249-7494	1-223	00-254-5828	1-173
00-243-2735	1-203	00-246-0566	1-57	00-250-0789	1-64	00-254-5957	1-138
00-243-2776	1-236	00-246-0975	1-219	00-250-2474	1-21	00-254-6211	1-159
00-243-2951	1-228	00-246-2311	1-232	00-250-2525	1-214	00-254-6225	1-159
00-243-2957	1-227	00-246-4350	1-244	00-250-3911	1-227	00-254-6228	1-159
00-243-3152	1-94	00-246-5192	1-2	00-250-6512	1-210	00-254-6238	1-174
00-243-3156	1-94	00-246-6134	1-93	00-250-7902	1-163	00-254-6241	1-174
00-243-3296	1-238	00-247-0519	1-174	00-250-7927	1-160	00-254-6243	1-174
00-243-3589	1-88	00-247-0748	1-251	00-250-8038	1-200	00-254-6424	1-161
00-243-3632	1-226	00-247-0864	1-244	00-250-8053	1-213	00-254-6447	1-161
00-243-4438	1-95	00-247-0868	1-244	00-250-8748	1-61	00-254-6449	1-161
00-243-4439	1-95	00-247-1253	1-255	00-250-8749	1-61	00-254-6450	1-161
00-243-4440	1-95	00-247-1370	1-127	00-250-8750	1-61	00-254-6626	1-228
00-243-4441	1-95	00-247-2536	1-250	00-250-8751	1-61	00-254-6635	1-212
00-243-4442	1-95	00-247-2540	1-250	00-250-9137	1-244	00-255-0232	1-111
00-243-4443	1-95	00-247-2896	1-226	00-250-9987	1-28	00-255-0234	1-111
00-243-4444	1-95	00-247-5177	1-233	00-251-1527	1-226	00-255-0420	1-217
00-243-4445	1-95	00-247-7432	1-69	00-251-2267	1-227	00-255-1096	1-240
00-243-4632	1-201	00-247-9224	1-93	00-251-4489	1-227	00-255-1476	1-228
00-243-6911	1-205	00-248-0866	1-203	00-251-6478	1-204	00-255-2690	1-162
00-243-6912	1-255	00-248-3918	1-148	00-251-6481	1-218	00-255-4060	1-255
00-243-7249	1-28	00-248-5263	1-55	00-251-6977	1-136	00-255-4068	1-255
00-243-7325	1-225	00-249-1071	1-229	00-251-9503	1-230	00-255-4458	1-223
00-243-7326	1-225	00-249-1076	1-229	00-252-3154	1-124	00-255-6541	1-216



# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-255-6557	1-216	00-260-8284	1-150	00-262-2173	1-257	00-264-5578	1-69
00-255-6579	1-216	00-260-8285	1-150	00-262-2174	1-257	00-264-5807	1-58
00-255-6600	1-216	00-260-8286	1-150	00-262-2175	1-257	00-264-5818	1-58
00-255-8760	1-101	00-260-8288	1-150	00-262-2176	1-257	00-264-6499	1-98
00-255-9332	1-53	00-260-8289	1-150	00-262-2177	1-257	00-264-6502	1-98
00-255-9333	1-53	00-260-8290	1-150	00-262-2178	1-257	00-264-9125	1-165
00-256-0651	1-238	00-261-3214	1-261	00-262-2179	1-257	00-264-9126	1-165
00-256-2150	1-234	00-261-3246	1-261	00-262-2180	1-256	00-264-9128	1-166
00-256-3843	1-157	00-261-3259	1-261	00-262-2191	1-257	00-264-9129	1-165
00-256-4305	1-163	00-261-3262	1-261	00-262-2192	1-257	00-264-9151	1-157
00-256-6543	1-194	00-261-3263	1-261	00-262-2193	1-257	00-264-9153	1-157
00-256-8552	1-163	00-261-4994	1-265	00-262-2194	1-257	00-264-9154	1-157
00-256-8553	1-163	00-261-8415	1-203	00-262-2195	1-262	00-264-9155	1-157
00-256-8554	1-163	00-262-1484	1-261	00-262-2200	1-262	00-264-9156	1-157
00-256-8555	1-163	00-262-1548	1-88	00-262-2597	1-56	00-264-9157	1-157
00-256-8556	1-163	00-262-1551	1-88	00-262-2652	1-56	00-264-9158	1-157
00-256-8557	1-163	00-262-1573	1-95	00-262-3945	1-260	00-264-9171	1-171
00-256-8558	1-163	00-262-1597	1-99	00-262-4182	1-55	00-264-9209	1-165
00-256-8559	1-164	00-262-1791	1-99	00-262-4190	1-55	00-264-9573	1-58
00-256-8560	1-164	00-262-1890	1-99	00-262-4192	1-55	00-265-7102	1-57
00-256-8561	1-164	00-262-1891	1-99	00-262-4417	1-13	00-265-7462	1-227
00-256-8563	1-164	00-262-1894	1-99	00-262-4426	1-2	00-266-0058	1-99
00-256-8835	1-124	00-262-1896	1-99	00-262-6875	1-190	00-266-0062	1-99
00-256-9014	1-240	00-262-1897	1-99	00-262-6877	1-190	00-266-0063	1-99
00-256-9259	1-237	00-262-2048	1-99	00-262-7070	1-107	00-266-0064	1-99
00-256-9912	1-105	00-262-2049	1-99	00-262-7091	1-120	00-266-0065	1-99
00-257-0727	1-29	00-262-2051	1-99	00-262-7092	1-120	00-266-0066	1-99
00-257-2120	1-174	00-262-2066	1-96	00-262-7098	1-120	00-266-0067	1-99
00-257-2124	1-174	00-262-2067	1-96	00-262-7099	1-120	00-266-0070	1-99
00-257-2144	1-174	00-262-2068	1-96	00-262-8491	1-247	00-266-0071	1-99
00-257-2146	1-174	00-262-2069	1-96	00-262-8868	1-200	00-266-0074	1-99
00-257-2147	1-174	00-262-2070	1-96	00-263-0341	1-212	00-266-0085	1-99
00-257-2148	1-174	00-262-2071	1-96	00-263-0342	1-212	00-266-0086	1-99
00-257-2150	1-174	00-262-2074	1-96	00-263-3041	1-80	00-266-0531	1-143
00-257-2151	1-174	00-262-2076	1-96	00-263-4978	1-160	00-266-0533	1-144
00-257-2163	1-175	00-262-2078	1-96	00-263-4983	1-159	00-266-0534	1-144
00-257-2215	1-123	00-262-2079	1-96	00-263-5264	1-174	00-266-0535	1-143
00-257-5390	1-94	00-262-2082	1-96	00-263-6460	1-175	00-266-0536	1-144
00-260-1645	1-216	00-262-2157	1-257	00-263-6465	1-175	00-266-0538	1-144
00-260-1664	1-216	00-262-2158	1-257	00-263-6472	1-175	00-266-0541	1-144
00-260-1665	1-216	00-262-2160	1-257	00-263-9886	1-199	00-266-0543	1-144
00-260-1668	1-216	00-262-2161	1-257	00-264-3777	1-248	00-266-0545	1-144
00-260-1671	1-216	00-262-2162	1-257	00-264-3793	1-245	00-266-2417	1-143
00-260-1702	1-216	00-262-2163	1-257	00-264-3794	1-245	00-266-7023	1-229
00-260-1705	1-216	00-262-2164	1-257	00-264-3795	1-245	00-266-7408	1-96
00-260-1707	1-216	00-262-2165	1-257	00-264-3796	1-245	00-266-7413	1-96
00-260-1717	1-216	00-262-2166	1-257	00-264-4735	1-81	00-266-7415	1-96
00-260-1721	1-216	00-262-2167	1-257	00-264-4762	1-81	00-266-7463	1-16
00-260-1727	1-216	00-262-2168	1-257	00-264-4764	1-81	00-266-8301	1-147
00-260-1728	1-216	00-262-2169	1-257	00-264-4767	1-82	00-266-9159	1-200
00-260-4837	1-239	00-262-2170	1-257	00-264-4774	1-82	00-266-9228	1-257
00-260-8267	1-149	00-262-2171	1-257	00-264-4859	1-16	00-266-9229	1-257
00-260-8270	1-149	00-262-2172	1-257	00-264-5577	1-69	00-266-9230	1-257

# NIIN Cross Reference Index

NIIN	Page No.	NIIN	Page No.	NIIN	Page No.	NIIN	Page No.
00-266-9233	1-256	00-269-7965	1-247	00-272-3346	1-180	00-273-1078	1-124
00-266-9234	1-256	00-269-7966	1-247	00-272-3347	1-180	00-273-1079	1-124
00-266-9243	1-257	00-269-9343	1-89	00-272-3582	1-49	00-273-1080	1-124
00-266-9244	1-257	00-269-9369	1-89	00-272-7744	1-95	00-273-1086	1-124
00-266-9245	1-257	00-269-9460	1-122	00-272-7745	1-99	00-273-1095	1-126
00-266-9246	1-257	00-269-9610	1-57	00-272-7749	1-95	00-273-1096	1-125
00-266-9247	1-257	00-269-9761	1-95	00-272-7750	1-95	00-273-1104	1-124
00-266-9248	1-257	00-269-9764	1-95	00-272-8794	1-89	00-273-1105	1-126
00-266-9462	1-257	00-269-9771	1-99	00-272-8798	1-89	00-273-1202	1-123
00-266-9464	1-257	00-269-9772	1-99	00-272-8800	1-89	00-273-2552	1-53
00-266-9466	1-257	00-269-9775	1-99	00-272-8802	1-89	00-273-2903	1-89
00-266-9467	1-257	00-270-1044	1-204	00-272-8812	1-87	00-273-2904	1-89
00-266-9468	1-257	00-270-1654	1-88	00-272-8835	1-97	00-273-3073	1-95
00-266-9470	1-257	00-270-3855	1-150	00-272-8836	1-97	00-273-3074	1-95
00-266-9471	1-257	00-270-3886	1-167	00-272-8848	1-89	00-273-3075	1-95
00-266-9515	1-187	00-270-3891	1-167	00-272-8849	1-89	00-273-3076	1-95
00-266-9518	1-187	00-270-3916	1-149	00-272-9760	1-260	00-273-3078	1-95
00-266-9565	1-56	00-270-3917	1-149	00-272-9761	1-260	00-273-3079	1-95
00-267-1994	1-14	00-270-3918	1-149	00-272-9769	1-64	00-273-3080	1-95
00-267-1995	1-14	00-270-3919	1-149	00-272-9773	1-64	00-273-3081	1-95
00-267-7024	1-95	00-270-3920	1-149	00-272-9774	1-64	00-273-3084	1-99
00-267-7111	1-95	00-270-3921	1-149	00-272-9775	1-64	00-273-3611	1-99
00-268-1235	1-216	00-270-3922	1-149	00-272-9776	1-64	00-273-7948	1-131
00-268-1253	1-216	00-270-4309	1-247	00-272-9778	1-64	00-273-9147	1-3
00-268-1258	1-216	00-270-4415	1-121	00-272-9780	1-64	00-273-9200	1-260
00-268-1309	1-216	00-270-4512	1-108	00-272-9782	1-64	00-273-9208	1-225
00-268-1310	1-216	00-270-4606	1-144	00-272-9784	1-64	00-273-9275	1-97
00-268-1311	1-216	00-270-4613	1-143	00-272-9785	1-64	00-273-9279	1-98
00-268-3579	1-233	00-270-4621	1-143	00-272-9786	1-64	00-273-9739	1-73
00-268-4224	1-219	00-270-5468	1-93	00-272-9787	1-64	00-273-9886	1-136
00-268-7479	1-149	00-270-5480	1-97	00-272-9788	1-64	00-274-1154	1-139
00-268-9152	1-190	00-270-5482	1-97	00-272-9859	1-64	00-274-3033	1-87
00-268-9154	1-190	00-270-5483	1-97	00-272-9860	1-64	00-274-3472	1-96
00-268-9157	1-190	00-270-5484	1-97	00-272-9863	1-64	00-274-3477	1-89
00-268-9218	1-69	00-270-5485	1-97	00-272-9984	1-83	00-274-3481	1-89
00-268-9219	1-69	00-270-5486	1-97	00-272-9986	1-83	00-274-3482	1-88
00-268-9220	1-69	00-270-6047	1-55	00-272-9987	1-83	00-274-3647	1-180
00-268-9251	1-2	00-270-7706	1-49	00-273-0001	1-237	00-274-4504	1-143
00-268-9252	1-2	00-270-8245	1-93	00-273-0083	1-222	00-274-5699	1-200
00-268-9377	1-64	00-270-8636	1-89	00-273-0084	1-222	00-274-5713	1-200
00-268-9378	1-64	00-270-8639	1-89	00-273-0085	1-222	00-274-5816	1-114
00-268-9380	1-64	00-270-8695	1-99	00-273-0122	1-212	00-274-5828	1-151
00-268-9381	1-64	00-270-8708	1-99	00-273-0126	1-218	00-274-7120	1-150
00-268-9382	1-64	00-270-8709	1-99	00-273-0127	1-219	00-274-9653	1-246
00-268-9730	1-107	00-271-0011	1-37	00-273-0128	1-218	00-274-9655	1-246
00-268-9786	1-200	00-271-1914	1-93	00-273-0684	1-3	00-274-9658	1-246
00-269-0847	1-3	00-272-2227	1-2	00-273-0685	1-3	00-275-0044	1-39
00-269-0848	1-3	00-272-2353	1-3	00-273-0686	1-3	00-275-1231	1-53
00-269-1098	1-13	00-272-2355	1-3	00-273-0687	1-3	00-275-2961	1-83
00-269-1100	1-13	00-272-2699	1-205	00-273-0688	1-3	00-275-2962	1-83
00-269-2189	1-140	00-272-3332	1-179	00-273-0690	1-3	00-275-3155	1-114
00-269-3760	1-152	00-272-3333	1-179	00-273-1051	1-140	00-275-3156	1-114
00-269-7912	1-118	00-272-3335	1-179	00-273-1077	1-124	00-275-3157	1-114

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-275-7900	1-200	00-277-3374	1-110	00-277-4652	1-131	00-277-6371	1-165
00-276-1031	1-261	00-277-3375	1-110	00-277-4653	1-131	00-277-6671	1-63
00-276-1032	1-261	00-277-3376	1-107	00-277-4654	1-131	00-277-6673	1-63
00-276-7838	1-124	00-277-3377	1-107	00-277-4655	1-131	00-277-6674	1-63
00-276-8929	1-114	00-277-3378	1-107	00-277-4656	1-131	00-277-6675	1-63
00-276-8940	1-120	00-277-3379	1-141	00-277-4657	1-131	00-277-6948	1-150
00-276-8941	1-120	00-277-3380	1-141	00-277-4663	1-131	00-277-6988	1-166
00-276-9041	1-179	00-277-3381	1-141	00-277-4833	1-246	00-277-7025	1-246
00-277-0286	1-39	00-277-3382	1-141	00-277-4835	1-246	00-277-7132	1-151
00-277-0372	1-39	00-277-3383	1-141	00-277-5077	1-165	00-277-7152	1-127
00-277-0373	1-39	00-277-3549	1-63	00-277-5081	1-165	00-277-7225	1-133
00-277-1247	1-247	00-277-3550	1-63	00-277-5083	1-165	00-277-7246	1-131
00-277-1254	1-247	00-277-3555	1-63	00-277-5084	1-165	00-277-7448	1-131
00-277-1258	1-247	00-277-3556	1-63	00-277-5104	1-175	00-277-7449	1-130
00-277-1461	1-247	00-277-3557	1-63	00-277-5107	1-175	00-277-7450	1-131
00-277-1462	1-247	00-277-3566	1-63	00-277-5288	1-173	00-277-7451	1-130
00-277-1463	1-242	00-277-3568	1-63	00-277-5357	1-173	00-277-7452	1-131
00-277-1464	1-242	00-277-3954	1-130	00-277-5466	1-130	00-277-7453	1-131
00-277-1465	1-243	00-277-3955	1-130	00-277-5467	1-130	00-277-7454	1-131
00-277-1477	1-247	00-277-3956	1-130	00-277-5468	1-130	00-277-7455	1-130
00-277-1478	1-247	00-277-3957	1-130	00-277-5469	1-130	00-277-7581	1-131
00-277-1479	1-247	00-277-3960	1-130	00-277-5472	1-130	00-277-7739	1-129
00-277-1480	1-247	00-277-4023	1-131	00-277-5473	1-130	00-277-7741	1-129
00-277-1483	1-247	00-277-4026	1-130	00-277-5524	1-131	00-277-7905	1-143
00-277-1484	1-247	00-277-4027	1-130	00-277-5525	1-131	00-277-8269	1-159
00-277-1485	1-247	00-277-4029	1-130	00-277-5542	1-158	00-277-8270	1-159
00-277-1486	1-247	00-277-4030	1-130	00-277-5543	1-158	00-277-8274	1-159
00-277-1645	1-127	00-277-4032	1-130	00-277-5546	1-158	00-277-8301	1-246
00-277-1714	1-186	00-277-4033	1-131	00-277-5553	1-158	00-277-8311	1-247
00-277-1715	1-186	00-277-4034	1-131	00-277-5676	1-155	00-277-8313	1-247
00-277-1717	1-186	00-277-4063	1-249	00-277-5678	1-154	00-277-8348	1-34
00-277-1749	1-183	00-277-4069	1-249	00-277-5679	1-154	00-277-8702	1-129
00-277-1801	1-248	00-277-4243	1-247	00-277-5680	1-155	00-277-8703	1-129
00-277-1873	1-149	00-277-4244	1-247	00-277-5781	1-246	00-277-8704	1-129
00-277-1896	1-149	00-277-4252	1-242	00-277-5784	1-3	00-277-8705	1-129
00-277-2311	1-246	00-277-4266	1-3	00-277-5785	1-3	00-277-8707	1-129
00-277-2342	1-246	00-277-4533	1-131	00-277-5787	1-3	00-277-8708	1-129
00-277-2459	1-158	00-277-4543	1-131	00-277-5850	1-151	00-277-8709	1-129
00-277-2461	1-158	00-277-4587	1-205	00-277-6068	1-130	00-277-8710	1-129
00-277-2466	1-130	00-277-4588	1-205	00-277-6069	1-130	00-277-8711	1-129
00-277-2467	1-130	00-277-4589	1-205	00-277-6078	1-129	00-277-8712	1-129
00-277-2468	1-130	00-277-4590	1-205	00-277-6080	1-129	00-277-8713	1-129
00-277-2469	1-130	00-277-4591	1-205	00-277-6084	1-129	00-277-8715	1-129
00-277-2470	1-130	00-277-4592	1-205	00-277-6086	1-129	00-277-8835	1-266
00-277-2471	1-130	00-277-4596	1-130	00-277-6087	1-129	00-277-8836	1-266
00-277-2472	1-130	00-277-4597	1-130	00-277-6088	1-129	00-277-9028	1-138
00-277-2473	1-130	00-277-4602	1-130	00-277-6099	1-130	00-277-9075	1-248
00-277-2474	1-130	00-277-4606	1-131	00-277-6100	1-130	00-277-9076	1-248
00-277-2549	1-151	00-277-4608	1-131	00-277-6101	1-130	00-277-9077	1-248
00-277-2550	1-151	00-277-4613	1-131	00-277-6119	1-131	00-277-9078	1-248
00-277-2690	1-218	00-277-4623	1-131	00-277-6126	1-130	00-277-9386	1-149
00-277-2694	1-246	00-277-4624	1-131	00-277-6127	1-130	00-277-9387	1-151
00-277-3364	1-246	00-277-4651	1-131	00-277-6159	1-155	00-277-9517	1-246

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-277-9818	1-246	00-278-2607	1-174	00-278-8761	1-173	00-287-2299	1-188
00-277-9844	1-126	00-278-2648	1-156	00-278-8764	1-173	00-287-2502	1-240
00-277-9848	1-190	00-278-3167	1-149	00-278-8765	1-173	00-287-2503	1-240
00-277-9849	1-190	00-278-3281	1-131	00-278-8829	1-168	00-287-2504	1-239
00-277-9853	1-190	00-278-3292	1-131	00-278-9197	1-151	00-287-2505	1-239
00-277-9856	1-190	00-278-3294	1-131	00-278-9200	1-151	00-287-2512	1-223
00-278-0230	1-258	00-278-3297	1-131	00-278-9211	1-151	00-287-2599	1-186
00-278-0232	1-257	00-278-3300	1-131	00-278-9376	1-175	00-287-2840	1-190
00-278-0326	1-238	00-278-3302	1-131	00-278-9549	1-128	00-287-3317	1-192
00-278-0327	1-238	00-278-3305	1-131	00-278-9874	1-186	00-287-3318	1-192
00-278-0340	1-245	00-278-3314	1-131	00-278-9877	1-186	00-287-3323	1-192
00-278-0341	1-245	00-278-3317	1-131	00-278-9925	1-224	00-287-3324	1-192
00-278-0342	1-246	00-278-3320	1-131	00-278-9926	1-233	00-287-3325	1-192
00-278-0350	1-235	00-278-3437	1-169	00-279-0020	1-130	00-287-3327	1-192
00-278-0351	1-235	00-278-3462	1-169	00-279-0985	1-169	00-287-3328	1-192
00-278-0375	1-148	00-278-3722	1-166	00-279-2716	1-157	00-287-3613	1-13
00-278-0417	1-151	00-278-3905	1-149	00-279-4475	1-96	00-287-3740	1-113
00-278-0422	1-151	00-278-4357	1-143	00-279-4476	1-96	00-287-4045	1-196
00-278-0678	1-173	00-278-4574	1-143	00-279-4477	1-97	00-287-4268	1-180
00-278-0698	1-97	00-278-4575	1-143	00-280-3453	1-96	00-287-4448	1-225
00-278-0699	1-96	00-278-4824	1-158	00-282-2509	1-99	00-287-4527	1-246
00-278-0700	1-96	00-278-4889	1-137	00-282-2512	1-99	00-287-4528	1-228
00-278-0701	1-96	00-278-4890	1-137	00-282-4885	1-97	00-287-5199	1-253
00-278-0703	1-96	00-278-4891	1-137	00-282-6225	1-88	00-287-5342	1-192
00-278-0712	1-96	00-278-4900	1-137	00-283-6397	1-157	00-287-5617	1-180
00-278-0714	1-96	00-278-4971	1-130	00-284-0132	1-63	00-287-6232	1-16
00-278-0924	1-63	00-278-4973	1-130	00-285-1576	1-54	00-287-6992	1-49
00-278-1092	1-139	00-278-4974	1-130	00-285-3705	1-88	00-287-7935	1-46
00-278-1103	1-137	00-278-4975	1-130	00-285-4733	1-54	00-287-7962	1-48
00-278-1109	1-137	00-278-4976	1-130	00-285-9901	1-90	00-287-9643	1-2
00-278-1112	1-137	00-278-4996	1-170	00-286-5433	1-97	00-287-9644	1-2
00-278-1113	1-137	00-278-4997	1-170	00-286-5434	1-54	00-287-9702	1-1
00-278-1251	1-75	00-278-4998	1-170	00-286-7611	1-89	00-288-1511	1-199
00-278-1264	1-237	00-278-5000	1-170	00-286-7612	1-89	00-288-2665	1-28
00-278-1267	1-239	00-278-5006	1-150	00-286-7717	1-89	00-288-4048	1-55
00-278-1268	1-239	00-278-5346	1-129	00-287-0276	1-168	00-288-6468	1-248
00-278-1269	1-239	00-278-5348	1-129	00-287-0289	1-168	00-288-6520	1-209
00-278-1270	1-239	00-278-5349	1-129	00-287-0290	1-168	00-288-6521	1-209
00-278-1273	1-239	00-278-5350	1-129	00-287-0420	1-176	00-288-6560	1-228
00-278-1276	1-239	00-278-5351	1-129	00-287-0421	1-176	00-288-6564	1-228
00-278-1283	1-239	00-278-5651	1-163	00-287-0422	1-176	00-288-6567	1-269
00-278-1323	1-138	00-278-5652	1-163	00-287-0547	1-143	00-288-6573	1-212
00-278-2097	1-130	00-278-5686	1-146	00-287-0706	1-171	00-288-6574	1-229
00-278-2198	1-130	00-278-5784	1-130	00-287-1391	1-174	00-288-6578	1-230
00-278-2213	1-130	00-278-6430	1-130	00-287-1537	1-168	00-288-6678	1-188
00-278-2214	1-131	00-278-6951	1-40	00-287-1701	1-175	00-288-7679	1-225
00-278-2215	1-131	00-278-6968	1-40	00-287-1703	1-175	00-288-7710	1-236
00-278-2216	1-131	00-278-7859	1-131	00-287-2041	1-191	00-288-7711	1-236
00-278-2217	1-131	00-278-7865	1-131	00-287-2042	1-191	00-288-7713	1-236
00-278-2423	1-224	00-278-8479	1-131	00-287-2046	1-191	00-288-7763	1-265
00-278-2513	1-152	00-278-8487	1-131	00-287-2047	1-191	00-288-7769	1-232
00-278-2523	1-151	00-278-8498	1-131	00-287-2129	1-240	00-288-7781	1-221
00-278-2546	1-151	00-278-8717	1-166	00-287-2130	1-240	00-288-7783	1-244

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-288-7785	1-221	00-289-0010	1-217	00-289-4612	1-134	00-293-0013	1-251
00-288-7786	1-221	00-289-0360	1-143	00-289-4619	1-176	00-293-0019	1-222
00-288-7787	1-221	00-289-0368	1-144	00-289-4716	1-143	00-293-0025	1-206
00-288-7789	1-221	00-289-0379	1-144	00-289-5091	1-176	00-293-0031	1-245
00-288-7803	1-239	00-289-0383	1-143	00-289-5176	1-169	00-293-0032	1-233
00-288-8155	1-242	00-289-0534	1-249	00-289-5221	1-138	00-293-0045	1-234
00-288-8371	1-193	00-289-0537	1-249	00-289-5222	1-138	00-293-0046	1-235
00-288-8383	1-194	00-289-0539	1-249	00-289-5241	1-162	00-293-0048	1-234
00-288-8716	1-226	00-289-0593	1-170	00-289-5506	1-176	00-293-0076	1-230
00-288-8722	1-208	00-289-0595	1-170	00-289-6230	1-162	00-293-0078	1-230
00-288-8728	1-238	00-289-0756	1-134	00-289-7990	1-136	00-293-0080	1-231
00-288-8732	1-240	00-289-0782	1-166	00-289-7991	1-136	00-293-0090	1-217
00-288-8737	1-215	00-289-1011	1-216	00-289-7993	1-131	00-293-0094	1-243
00-288-8739	1-241	00-289-1020	1-180	00-289-7994	1-131	00-293-0097	1-225
00-288-8743	1-248	00-289-1254	1-144	00-289-7995	1-131	00-293-0103	1-215
00-288-8746	1-248	00-289-1305	1-107	00-289-8004	1-131	00-293-0105	1-215
00-288-8802	1-176	00-289-1409	1-136	00-289-8005	1-131	00-293-0106	1-215
00-288-8816	1-108	00-289-1686	1-152	00-289-8006	1-131	00-293-0107	1-215
00-288-8865	1-250	00-289-1892	1-113	00-289-8007	1-131	00-293-0108	1-215
00-288-9180	1-226	00-289-1930	1-144	00-289-8045	1-126	00-293-0109	1-215
00-288-9182	1-226	00-289-2046	1-141	00-289-8133	1-164	00-293-0110	1-245
00-288-9204	1-192	00-289-2047	1-141	00-289-8134	1-164	00-293-0149	1-244
00-288-9300	1-208	00-289-2048	1-141	00-289-8192	1-154	00-293-0186	1-235
00-288-9302	1-246	00-289-2049	1-141	00-289-8493	1-156	00-293-0272	1-70
00-288-9325	1-122	00-289-2050	1-141	00-289-8523	1-27	00-293-0314	1-239
00-288-9420	1-160	00-289-2245	1-197	00-289-8616	1-93	00-293-0318	1-243
00-288-9422	1-160	00-289-2537	1-130	00-289-8617	1-93	00-293-0319	1-243
00-288-9671	1-246	00-289-2615	1-139	00-289-8618	1-172	00-293-0350	1-215
00-288-9685	1-244	00-289-2618	1-139	00-289-8619	1-172	00-293-0406	1-248
00-288-9707	1-227	00-289-2781	1-130	00-289-8620	1-172	00-293-0417	1-215
00-288-9710	1-240	00-289-2785	1-130	00-289-8622	1-172	00-293-0418	1-215
00-288-9717	1-235	00-289-2824	1-148	00-289-8623	1-172	00-293-0420	1-215
00-288-9754	1-139	00-289-2848	1-129	00-289-8626	1-170	00-293-0448	1-237
00-288-9840	1-139	00-289-2851	1-129	00-289-8627	1-170	00-293-0460	1-208
00-288-9865	1-138	00-289-2854	1-129	00-289-8632	1-170	00-293-0556	1-207
00-288-9867	1-139	00-289-2870	1-174	00-289-8633	1-150	00-293-0665	1-222
00-288-9870	1-139	00-289-2875	1-174	00-289-8634	1-150	00-293-0711	1-262
00-288-9873	1-138	00-289-3141	1-151	00-289-8637	1-167	00-293-0712	1-262
00-288-9875	1-138	00-289-3257	1-142	00-289-8659	1-218	00-293-0715	1-262
00-288-9878	1-139	00-289-3306	1-139	00-289-8910	1-267	00-293-0791	1-237
00-288-9928	1-143	00-289-3429	1-137	00-289-8911	1-267	00-293-0792	1-237
00-288-9938	1-143	00-289-3436	1-131	00-289-9197	1-138	00-293-0796	1-248
00-288-9997	1-246	00-289-3437	1-131	00-289-9199	1-138	00-293-0798	1-248
00-288-9999	1-248	00-289-3439	1-131	00-289-9200	1-138	00-293-0808	1-225
00-289-0000	1-248	00-289-4240	1-155	00-289-9201	1-138	00-293-0887	1-227
00-289-0001	1-209	00-289-4241	1-155	00-289-9202	1-138	00-293-0981	1-257
00-289-0002	1-209	00-289-4242	1-155	00-289-9657	1-212	00-293-0982	1-257
00-289-0003	1-209	00-289-4247	1-155	00-289-9662	1-239	00-293-0983	1-258
00-289-0004	1-209	00-289-4254	1-136	00-290-1388	1-97	00-293-1136	1-232
00-289-0005	1-209	00-289-4258	1-136	00-290-3766	1-217	00-293-1408	1-237
00-289-0006	1-209	00-289-4383	1-185	00-290-5810	1-93	00-293-1429	1-237
00-289-0007	1-209	00-289-4513	1-131	00-290-8392	1-14	00-293-1439	1-245
00-289-0008	1-209	00-289-4514	1-131	00-293-0008	1-245	00-293-1476	1-231

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-293-1585	1-213	00-293-3325	1-262	00-301-1078	1-236	00-335-3046	1-63
00-293-1602	1-249	00-293-3330	1-241	00-301-5114	1-132	00-335-3047	1-63
00-293-1608	1-240	00-293-3336	1-241	00-305-2275	1-226	00-337-6466	1-56
00-293-1623	1-69	00-293-3341	1-233	00-305-2306	1-236	00-337-6753	1-170
00-293-1737	1-69	00-293-3385	1-206	00-306-1213	1-182	00-338-2705	1-21
00-293-1849	1-253	00-293-3397	1-232	00-307-2745	1-203	00-340-0719	1-254
00-293-1902	1-255	00-293-3398	1-232	00-307-4699	1-108	00-340-3276	1-217
00-293-1904	1-209	00-293-3399	1-232	00-307-9536	1-65	00-343-2016	1-270
00-293-1905	1-209	00-293-3402	1-209	00-307-9541	1-65	00-343-4815	1-45
00-293-1957	1-206	00-293-3410	1-210	00-308-3809	1-238	00-343-6957	1-181
00-293-2057	1-222	00-293-3411	1-209	00-309-3005	1-65	00-343-7024	1-176
00-293-2081	1-221	00-293-3412	1-244	00-311-6150	1-65	00-343-7247	1-169
00-293-2121	1-246	00-293-3428	1-211	00-311-6182	1-65	00-344-9900	1-213
00-293-2193	1-228	00-293-3435	1-217	00-311-6183	1-65	00-345-5289	1-214
00-293-2224	1-231	00-293-3444	1-219	00-313-1048	1-28	00-346-2221	1-140
00-293-2319	1-224	00-293-3453	1-250	00-313-7703	1-203	00-346-7538	1-58
00-293-2336	1-205	00-293-3466	1-237	00-313-9496	1-269	00-347-6184	1-163
00-293-2339	1-205	00-293-3467	1-232	00-315-2747	1-267	00-348-8176	1-157
00-293-2379	1-265	00-293-3480	1-234	00-315-2758	1-267	00-348-8177	1-157
00-293-2384	1-222	00-293-3481	1-234	00-316-0109	1-28	00-348-8178	1-157
00-293-2396	1-255	00-293-3485	1-234	00-316-2484	1-97	00-348-8179	1-157
00-293-2495	1-206	00-293-3486	1-233	00-316-7210	1-49	00-348-8180	1-157
00-293-2513	1-235	00-293-3509	1-237	00-317-2732	1-56	00-348-8203	1-157
00-293-2797	1-253	00-293-3510	1-237	00-317-3800	1-128	00-349-7137	1-182
00-293-2865	1-205	00-293-3512	1-237	00-317-4811	1-27	00-350-9160	1-27
00-293-2866	1-205	00-293-3559	1-66	00-318-7740	1-65	00-351-2199	1-170
00-293-2875	1-271	00-293-3560	1-65	00-319-5079	1-266	00-351-2299	1-13
00-293-2885	1-229	00-293-3561	1-65	00-320-9832	1-65	00-351-2322	1-16
00-293-2898	1-255	00-293-7165	1-154	00-320-9847	1-65	00-351-2323	1-16
00-293-2900	1-255	00-293-7182	1-154	00-320-9848	1-69	00-351-2545	1-28
00-293-2901	1-255	00-293-7184	1-154	00-322-6231	1-251	00-351-7316	1-140
00-293-2902	1-255	00-293-7997	1-136	00-322-8457	1-143	00-355-4843	1-14
00-293-2905	1-255	00-293-8152	1-199	00-323-1472	1-43	00-355-4844	1-14
00-293-2907	1-255	00-293-8154	1-39	00-325-3181	1-123	00-355-4845	1-14
00-293-2925	1-236	00-293-9199	1-219	00-329-4306	1-266	00-355-4862	1-107
00-293-2997	1-226	00-293-9302	1-35	00-330-5869	1-238	00-355-4920	1-84
00-293-2999	1-226	00-294-4605	1-232	00-331-5496	1-267	00-355-4926	1-84
00-293-3003	1-226	00-294-5104	1-199	00-332-4437	1-43	00-356-3924	1-200
00-293-3018	1-255	00-294-5108	1-199	00-333-3266	1-271	00-357-0983	1-15
00-293-3019	1-255	00-294-6897	1-199	00-333-5475	1-126	00-357-5593	1-207
00-293-3112	1-243	00-294-9514	1-248	00-333-5541	1-203	00-357-5753	1-237
00-293-3159	1-239	00-295-1637	1-26	00-334-3829	1-184	00-357-5754	1-237
00-293-3171	1-239	00-297-5741	1-88	00-335-0085	1-266	00-357-5853	1-226
00-293-3178	1-239	00-298-6831	1-29	00-335-3036	1-63	00-357-6065	1-238
00-293-3208	1-225	00-300-6992	1-124	00-335-3037	1-63	00-357-7175	1-240
00-293-3209	1-215	00-300-6994	1-126	00-335-3038	1-63	00-357-7494	1-260
00-293-3210	1-215	00-300-6996	1-126	00-335-3039	1-63	00-357-7504	1-260
00-293-3309	1-239	00-300-6998	1-124	00-335-3040	1-63	00-357-9168	1-249
00-293-3311	1-239		1-126	00-335-3041	1-63	00-359-3872	1-169
00-293-3317	1-262	00-300-6999	1-126	00-335-3042	1-63	00-359-6478	1-205
00-293-3322	1-262	00-300-7000	1-126	00-335-3043	1-63	00-363-3914	1-233
00-293-3323	1-262	00-300-7924	1-44	00-335-3044	1-63	00-363-4199	1-140
00-293-3324	1-262	00-300-7926	1-173	00-335-3045	1-63	00-363-5631	1-28

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-364-3035	1-126	00-373-0968	1-97	00-400-6558	1-147	00-422-9494	1-188
00-364-3452	1-132	00-373-0997	1-97	00-400-6559	1-138	00-423-0720	1-211
00-364-5005	1-70	00-373-0998	1-97	00-400-8419	1-39	00-423-1001	1-139
00-366-1187	1-171	00-373-1121	1-96	00-401-6176	1-66	00-423-6728	1-245
00-368-2880	1-3	00-373-1123	1-96	00-401-8231	1-139	00-424-2694	1-131
00-368-4787	1-13	00-373-1128	1-96	00-401-8581	1-98	00-424-4019	1-146
00-368-4788	1-13	00-373-1317	1-97	00-401-9299	1-137	00-424-5867	1-144
00-368-4792	1-15	00-373-1327	1-97	00-403-0901	1-140	00-424-5871	1-144
00-368-4795	1-15	00-373-1691	1-212	00-403-2087	1-58	00-426-0392	1-55
00-368-7551	1-82	00-374-6946	1-142	00-403-3291	1-26	00-427-0534	1-25
00-369-2955	1-96	00-374-6947	1-142	00-403-4555	1-234	00-431-5536	1-98
00-369-2997	1-96	00-374-6948	1-142	00-403-5321	1-55	00-431-5537	1-98
00-369-3692	1-97	00-374-6950	1-142	00-403-6410	1-133	00-431-5538	1-98
00-369-3719	1-97	00-374-6951	1-142	00-404-3061	1-27	00-431-5539	1-98
00-369-3905	1-97	00-374-6953	1-142	00-404-7277	1-139	00-431-5540	1-98
00-369-3909	1-97	00-374-6954	1-147	00-406-0619	1-39	00-431-6518	1-115
00-369-3911	1-97	00-374-6960	1-142	00-406-3309	1-139	00-431-7880	1-25
00-369-3921	1-96	00-375-6803	1-142	00-407-0558	1-145	00-431-9117	1-27
00-369-3962	1-97	00-376-5619	1-156	00-407-6627	1-151	00-432-0330	1-105
00-369-3963	1-97	00-377-1162	1-97	00-408-1434	1-235	00-432-1204	1-145
00-369-3973	1-97	00-377-1163	1-97	00-409-5202	1-238	00-432-1293	1-174
00-369-3988	1-97	00-377-1170	1-96	00-409-5206	1-238	00-432-3044	1-130
00-369-3992	1-97	00-377-1171	1-96	00-409-6328	1-194	00-432-3049	1-130
00-369-3993	1-97	00-377-1327	1-97	00-409-8810	1-133	00-432-3055	1-130
00-369-4033	1-96	00-377-1406	1-97	00-409-8812	1-133	00-432-3127	1-131
00-369-4045	1-97	00-377-6521	1-110	00-410-4496	1-189	00-432-3163	1-130
00-369-4531	1-113	00-377-8597	1-1	00-410-6425	1-46	00-432-3164	1-130
00-369-4567	1-14	00-378-4411	1-250	00-411-2039	1-181	00-432-7195	1-189
00-369-4571	1-16	00-379-2815	1-29	00-411-5438	1-145	00-432-9211	1-199
00-369-4692	1-154	00-382-9159	1-84	00-411-5597	1-145	00-432-9581	1-189
00-369-4927	1-266	00-383-4560	1-171	00-412-3505	1-184	00-432-9582	1-189
00-370-1116	1-89	00-385-8828	1-26	00-413-4529	1-108	00-432-9583	1-189
00-370-1241	1-239	00-385-8831	1-26	00-415-1362	1-138	00-432-9616	1-142
00-372-0233	1-110	00-385-8855	1-25	00-416-4450	1-28	00-433-3375	1-173
00-372-0585	1-113	00-388-3416	1-267	00-417-1120	1-187	00-433-3376	1-173
00-372-0665	1-114	00-388-9878	1-135	00-417-7258	1-55	00-433-3377	1-173
00-372-0691	1-126	00-390-8586	1-230	00-418-0160	1-190	00-433-3564	1-27
00-372-0693	1-124	00-391-0101	1-227	00-419-0456	1-190	00-435-4268	1-154
00-372-0772	1-126	00-391-1069	1-265	00-419-3024	1-190	00-436-2855	1-138
00-372-0775	1-124	00-391-1087	1-271	00-419-5826	1-190	00-436-3067	1-27
00-372-0777	1-124	00-391-1220	1-53	00-419-5827	1-190	00-439-1722	1-144
00-372-0789	1-124	00-391-3782	1-180	00-419-9323	1-26	00-439-6021	1-143
00-372-0790	1-124	00-391-5500	1-109	00-419-9372	1-167	00-439-8988	1-231
00-372-0791	1-126	00-391-5767	1-134	00-420-4494	1-147	00-440-0229	1-145
00-372-0793	1-157	00-391-5899	1-188	00-420-4495	1-138	00-440-2072	1-139
00-372-0853	1-109	00-391-8422	1-172	00-420-4636	1-138	00-440-5361	1-182
00-372-0854	1-109	00-392-2943	1-110	00-420-5626	1-26	00-440-8008	1-233
00-372-0864	1-110	00-392-4697	1-29	00-420-8670	1-147	00-440-8047	1-246
00-372-0866	1-107	00-396-0162	1-144	00-421-0000	1-241	00-441-3991	1-255
00-372-3480	1-55	00-396-1040	1-200	00-421-1321	1-139	00-441-5085	1-181
00-373-0902	1-97	00-397-3169	1-147	00-421-1357	1-147	00-441-5124	1-181
00-373-0927	1-96	00-398-4930	1-139	00-421-1358	1-147	00-443-1736	1-46
00-373-0939	1-96	00-399-5235	1-29	00-422-8594	1-271	00-443-3526	1-109

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-443-4195	1-209	00-467-5127	1-242	00-488-0441	1-247	00-513-7851	1-142
00-443-4773	1-131	00-467-5137	1-225	00-488-5907	1-151	00-515-5663	1-194
00-444-1795	1-128	00-468-0094	1-44	00-489-5314	1-187	00-516-0906	1-49
00-444-7247	1-189	00-469-1853	1-185	00-489-5348	1-187	00-516-1869	1-49
00-445-4416	1-133	00-469-1856	1-249	00-489-6303	1-154	00-516-2418	1-49
00-445-4422	1-184	00-469-7725	1-190	00-490-6257	1-160	00-516-2421	1-49
00-446-3499	1-196	00-470-6755	1-114	00-491-9516	1-231	00-516-2434	1-49
00-446-6602	1-145	00-471-8593	1-131	00-492-8109	1-27	00-516-2950	1-260
00-446-8370	1-189	00-471-9336	1-93	00-494-0833	1-80	00-516-3120	1-236
00-446-8371	1-189	00-472-2328	1-220	00-494-0834	1-80	00-516-3162	1-64
00-448-3927	1-230	00-472-2607	1-229	00-494-0904	1-154	00-516-3370	1-260
00-448-3967	1-266	00-472-2611	1-147	00-494-1863	1-242	00-516-3373	1-260
00-449-6775	1-258	00-473-2000	1-57	00-494-1889	1-223	00-516-3812	1-212
00-449-6907	1-207	00-473-5931	1-215	00-494-1895	1-223	00-516-3815	1-216
00-449-7313	1-216	00-473-6256	1-265	00-494-1910	1-248	00-516-3822	1-211
00-449-8083	1-245	00-473-6260	1-267	00-494-1911	1-248	00-516-4368	1-65
00-449-8084	1-245	00-473-6476	1-245	00-494-1929	1-249	00-516-4483	1-122
00-449-8128	1-251	00-473-8357	1-143	00-494-1989	1-248	00-516-4517	1-122
00-450-9156	1-139	00-474-7227	1-251	00-494-2015	1-266	00-516-4522	1-64
00-450-9371	1-163	00-475-0142	1-14	00-494-2522	1-109	00-516-4523	1-122
00-451-5181	1-130	00-475-4826	1-149	00-494-3271	1-154	00-516-4527	1-122
00-451-6380	1-26	00-476-0283	1-142	00-494-3272	1-154	00-516-4529	1-122
00-453-6187	1-165	00-476-0463	1-64	00-494-3273	1-154	00-516-4531	1-122
00-454-4352	1-127	00-477-6602	1-155	00-494-9351	1-151	00-516-4572	1-63
00-454-7606	1-193	00-481-6686	1-188	00-495-6213	1-190	00-516-4728	1-122
00-455-0192	1-131	00-482-2441	1-196	00-495-6228	1-191	00-516-4831	1-131
00-455-0195	1-130	00-482-2543	1-233	00-495-6229	1-185	00-516-5159	1-34
00-455-0197	1-130	00-482-4654	1-27	00-495-6233	1-186	00-516-5171	1-34
00-455-2129	1-133	00-482-6369	1-194	00-495-6234	1-185	00-516-8405	1-87
00-455-5461	1-64	00-482-8906	1-188	00-495-6263	1-191	00-517-1249	1-27
00-456-2076	1-138	00-482-8907	1-188	00-497-1677	1-190	00-517-5347	1-249
00-456-6146	1-119	00-482-8908	1-189	00-497-1681	1-191	00-517-5561	1-262
00-457-2957	1-90	00-483-0675	1-190	00-497-1684	1-191	00-517-5734	1-63
00-457-6470	1-188	00-483-0676	1-190	00-497-1686	1-191	00-517-5805	1-63
00-460-2374	1-196	00-483-0677	1-190	00-497-4281	1-146	00-517-6018	1-65
00-460-2448	1-135	00-483-0678	1-188	00-497-6683	1-27	00-517-6075	1-70
00-460-2517	1-28	00-483-0679	1-188	00-498-7365	1-239	00-517-8423	1-47
00-460-5244	1-37	00-483-0680	1-188	00-498-8772	1-267	00-517-8432	1-49
00-460-7198	1-57	00-483-0681	1-188	00-498-8898	1-266	00-518-4431	1-26
00-460-7641	1-56	00-483-0682	1-188	00-504-7492	1-139	00-519-7916	1-93
00-460-7642	1-56	00-483-0692	1-185	00-504-8682	1-27	00-519-7946	1-93
00-460-7650	1-56	00-483-0693	1-185	00-506-2472	1-147	00-524-6924	1-213
00-460-7651	1-56	00-483-0695	1-191	00-506-2683	1-142	00-524-7924	1-170
00-460-7660	1-56	00-483-0697	1-191	00-506-9092	1-233	00-527-9089	1-94
00-461-3767	1-134	00-483-0698	1-191	00-507-0005	1-159	00-528-0357	1-26
00-461-4466	1-194	00-483-0699	1-191	00-507-4159	1-139	00-528-0898	1-25
00-461-5555	1-33	00-483-4831	1-146	00-508-6072	1-48	00-528-1945	1-26
00-465-1904	1-111	00-484-3439	1-125	00-508-9755	1-221	00-528-2891	1-229
00-465-1906	1-110	00-484-3760	1-177	00-511-1432	1-249	00-528-2892	1-229
00-465-1907	1-56	00-484-7472	1-27	00-511-3544	1-21	00-528-3100	1-70
00-465-1908	1-56	00-485-9188	1-125	00-512-3733	1-182	00-528-3113	1-70
00-465-3858	1-273	00-485-9279	1-146	00-513-7849	1-142	00-528-3763	1-26
00-466-7770	1-182	00-488-0440	1-247	00-513-7850	1-142	00-528-3765	1-26



# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-528-3767	1-26	00-528-4641	1-26	00-537-2000	1-213	00-541-4962	1-216
00-528-3768	1-26	00-528-4734	1-26	00-537-3375	1-235	00-541-5167	1-131
00-528-3770	1-26	00-528-4737	1-26	00-540-0563	1-239	00-541-5169	1-131
00-528-3771	1-26	00-528-4751	1-26	00-540-0623	1-119	00-541-5170	1-131
00-528-3787	1-26	00-528-4752	1-26	00-540-0754	1-244	00-541-5171	1-131
00-528-3788	1-26	00-528-4753	1-26	00-540-1268	1-154	00-541-5692	1-190
00-528-3796	1-26	00-528-4754	1-26	00-540-1291	1-69	00-541-5693	1-190
00-528-3797	1-26	00-528-4756	1-26	00-540-1368	1-138	00-541-5694	1-190
00-528-3799	1-26	00-528-6756	1-27	00-540-1416	1-226	00-541-5695	1-190
00-528-3825	1-26	00-528-6819	1-27	00-540-1603	1-69	00-541-5696	1-190
00-528-3882	1-55	00-528-8375	1-28	00-540-1701	1-139	00-541-5697	1-190
00-528-4219	1-26	00-529-0344	1-26	00-540-1711	1-123	00-541-5699	1-190
00-528-4228	1-26	00-529-0345	1-27	00-540-1860	1-215	00-541-6228	1-109
00-528-4230	1-26	00-529-0346	1-27	00-540-1962	1-138	00-541-6603	1-146
00-528-4234	1-26	00-529-0349	1-27	00-540-2018	1-165	00-541-6605	1-148
00-528-4255	1-26	00-529-0350	1-27	00-540-2294	1-265	00-541-6606	1-147
00-528-4256	1-26	00-529-0354	1-27	00-540-2381	1-189	00-541-6607	1-147
00-528-4258	1-26	00-529-0389	1-27	00-540-2421	1-120	00-541-6608	1-148
00-528-4260	1-26	00-529-0391	1-27	00-540-2422	1-120	00-541-6617	1-130
00-528-4261	1-26	00-529-0393	1-27	00-540-2427	1-120	00-541-6618	1-130
00-528-4264	1-26	00-529-0394	1-27	00-540-2612	1-144	00-541-6619	1-130
00-528-4267	1-26	00-529-0467	1-27	00-540-4032	1-151	00-541-6620	1-130
00-528-4269	1-26	00-529-0469	1-27	00-540-4273	1-226	00-541-6730	1-207
00-528-4271	1-26	00-529-0471	1-27	00-540-4375	1-258	00-541-6731	1-235
00-528-4273	1-26	00-529-0472	1-27	00-540-5004	1-9	00-541-6732	1-233
00-528-4279	1-26	00-529-0476	1-27	00-540-5005	1-9	00-541-7189	1-138
00-528-4281	1-26	00-529-0481	1-27	00-540-5174	1-139	00-541-7567	1-180
00-528-4283	1-26	00-529-0482	1-27	00-540-5786	1-215	00-541-7697	1-215
00-528-4286	1-26	00-529-0487	1-27	00-540-5787	1-215	00-541-7698	1-215
00-528-4287	1-26	00-529-1063	1-27	00-540-5788	1-215	00-541-7704	1-237
00-528-4441	1-26	00-529-1475	1-231	00-540-6145	1-149	00-541-7725	1-172
00-528-4450	1-26	00-529-1889	1-266	00-540-6183	1-140	00-541-7747	1-151
00-528-4451	1-26	00-529-2014	1-216	00-540-6434	1-138	00-541-7749	1-169
00-528-4452	1-26	00-529-2517	1-265	00-540-6460	1-13	00-541-7999	1-212
00-528-4457	1-26	00-529-2553	1-232	00-540-6654	1-13	00-541-8018	1-151
00-528-4458	1-26	00-529-2691	1-265	00-540-6690	1-255	00-541-8234	1-162
00-528-4461	1-26	00-529-2694	1-265	00-540-6691	1-255	00-541-8287	1-170
00-528-4522	1-26	00-529-3101	1-239	00-540-6719	1-173	00-541-8296	1-150
00-528-4529	1-26	00-529-3206	1-211	00-540-6755	1-252	00-541-8444	1-229
00-528-4592	1-26	00-529-4577	1-256	00-540-8998	1-58	00-541-8859	1-139
00-528-4607	1-26	00-529-4693	1-70	00-541-0371	1-190	00-541-9089	1-174
00-528-4612	1-26	00-529-5092	1-208	00-541-0372	1-190	00-541-9281	1-138
00-528-4615	1-26	00-529-5478	1-70	00-541-1115	1-152	00-542-0191	1-7
00-528-4623	1-26	00-529-5687	1-256	00-541-1206	1-150	00-542-0192	1-6
00-528-4624	1-26	00-529-5691	1-256	00-541-1313	1-138	00-542-0193	1-6
00-528-4625	1-26	00-530-0698	1-94	00-541-1579	1-166	00-542-0195	1-4
00-528-4626	1-26	00-530-1757	1-213	00-541-1808	1-229	00-542-0198	1-5
00-528-4627	1-26	00-533-8143	1-142	00-541-3199	1-164	00-542-0200	1-5
00-528-4628	1-26	00-535-6483	1-193	00-541-4074	1-224	00-542-0201	1-5
00-528-4631	1-26	00-535-8345	1-113	00-541-4075	1-224	00-542-0202	1-4
00-528-4634	1-26	00-536-0338	1-173	00-541-4252	1-147	00-542-0203	1-4
00-528-4635	1-26	00-536-5025	1-38	00-541-4253	1-147	00-542-0205	1-5
00-528-4636	1-26	00-537-1531	1-29	00-541-4961	1-216	00-542-0206	1-4

# NIIN Cross Reference Index

NIIN	Page No.	NIIN	Page No.	NIIN	Page No.	NIIN	Page No.
00-542-0207	1-4	00-542-4917	1-127	00-542-5251	1-175	00-554-2990	1-185
00-542-0209	1-5	00-542-4994	1-170	00-542-5252	1-175	00-554-3256	1-34
00-542-0211	1-9	00-542-5100	1-156	00-542-5253	1-175	00-554-3304	1-34
00-542-0213	1-9	00-542-5101	1-156	00-542-5254	1-175	00-554-3359	1-34
00-542-0214	1-9	00-542-5102	1-156	00-542-5255	1-175	00-554-3519	1-4
00-542-0219	1-7	00-542-5103	1-156	00-542-5256	1-175	00-554-3523	1-5
00-542-0248	1-10	00-542-5104	1-156	00-542-5257	1-175	00-554-3524	1-4
00-542-0249	1-4	00-542-5105	1-156	00-542-5261	1-175	00-554-3525	1-4
00-542-0396	1-58	00-542-5106	1-156	00-542-5262	1-175	00-554-3526	1-5
00-542-0454	1-58	00-542-5107	1-156	00-542-5291	1-165	00-554-3527	1-5
00-542-2048	1-118	00-542-5108	1-156	00-542-5292	1-165	00-554-3528	1-5
00-542-2255	1-89	00-542-5109	1-156	00-542-5294	1-165	00-554-3531	1-5
00-542-2256	1-89	00-542-5110	1-156	00-542-5308	1-171	00-554-4039	1-9
00-542-2258	1-89	00-542-5111	1-156	00-542-5309	1-171	00-554-4059	1-9
00-542-2281	1-240	00-542-5112	1-156	00-542-5310	1-171	00-554-4060	1-9
00-542-2383	1-89	00-542-5141	1-159	00-542-5311	1-171	00-554-4067	1-9
00-542-2386	1-89	00-542-5142	1-159	00-542-5312	1-171	00-554-5314	1-34
00-542-2397	1-89	00-542-5143	1-159	00-542-5313	1-170	00-554-5412	1-34
00-542-2428	1-251	00-542-5144	1-159	00-542-5314	1-171	00-554-5656	1-34
00-542-2447	1-64	00-542-5145	1-159	00-542-5316	1-171	00-554-5719	1-34
00-542-2780	1-94	00-542-5146	1-159	00-542-5331	1-175	00-554-5962	1-34
00-542-2807	1-147	00-542-5147	1-161	00-542-5335	1-175	00-554-6190	1-4
00-542-2903	1-129	00-542-5148	1-159	00-542-5347	1-175	00-554-6191	1-4
00-542-2904	1-129	00-542-5149	1-159	00-542-5348	1-175	00-554-6193	1-4
00-542-2905	1-129	00-542-5151	1-159	00-542-5358	1-175	00-554-6194	1-9
00-542-2906	1-129	00-542-5152	1-159	00-542-5361	1-175	00-554-6198	1-9
00-542-2907	1-129	00-542-5153	1-159	00-542-5382	1-175	00-554-6202	1-5
00-542-2908	1-129	00-542-5154	1-159	00-542-5395	1-175	00-554-6203	1-5
00-542-2909	1-129	00-542-5155	1-159	00-542-5401	1-175	00-554-6205	1-4
00-542-2910	1-129	00-542-5164	1-159	00-542-5799	1-252	00-554-6210	1-5
00-542-2911	1-129	00-542-5189	1-176	00-543-3592	1-15	00-554-6211	1-5
00-542-2912	1-129	00-542-5190	1-176	00-543-3593	1-15	00-554-6214	1-5
00-542-2913	1-129	00-542-5191	1-176	00-543-3594	1-15	00-554-6215	1-5
00-542-2914	1-129	00-542-5192	1-176	00-543-3596	1-15	00-554-6216	1-5
00-542-2915	1-129	00-542-5193	1-176	00-543-3597	1-15	00-554-6778	1-200
00-542-2916	1-129	00-542-5194	1-176	00-543-8660	1-147	00-554-6887	1-9
00-542-2918	1-129	00-542-5195	1-176	00-545-0791	1-148	00-554-6903	1-9
00-542-3178	1-96	00-542-5220	1-161	00-545-3396	1-55	00-554-6904	1-10
00-542-3179	1-96	00-542-5221	1-158	00-545-4268	1-238	00-554-6909	1-12
00-542-3180	1-96	00-542-5222	1-158	00-546-4736	1-150	00-554-6910	1-11
00-542-3181	1-96	00-542-5223	1-158	00-547-0951	1-147	00-554-6911	1-11
00-542-3185	1-96	00-542-5224	1-158	00-548-3820	1-70	00-554-6923	1-9
00-542-3284	1-143	00-542-5225	1-158	00-549-5678	1-15	00-554-6924	1-10
00-542-3307	1-93	00-542-5226	1-159	00-549-5679	1-13	00-554-6925	1-10
00-542-3308	1-93	00-542-5227	1-159	00-551-0757	1-194	00-554-6931	1-4
00-542-3359	1-171	00-542-5228	1-159	00-551-0758	1-194	00-554-6932	1-4
00-542-3362	1-171	00-542-5229	1-159	00-551-1094	1-194	00-554-6938	1-9
00-542-3438	1-239	00-542-5231	1-159	00-551-2951	1-162	00-554-6941	1-9
00-542-4171	1-236	00-542-5232	1-159	00-551-3343	1-93	00-554-6942	1-9
00-542-4323	1-132	00-542-5246	1-175	00-551-8804	1-93	00-554-7126	1-156
00-542-4324	1-132	00-542-5247	1-175	00-552-4291	1-70	00-554-7286	1-217
00-542-4336	1-147	00-542-5248	1-175	00-552-9309	1-55	00-554-7397	1-167
00-542-4487	1-219	00-542-5250	1-175	00-554-2975	1-34	00-554-7398	1-172

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-554-7737	1-152	00-555-9205	1-261	00-580-6791	1-98	00-585-0469	1-154
00-554-7830	1-147	00-555-9206	1-261	00-580-6792	1-98	00-585-1488	1-49
00-554-7831	1-147	00-555-9359	1-212	00-580-6793	1-98	00-585-2260	1-125
00-554-7832	1-147	00-555-9500	1-219	00-580-6794	1-98	00-585-2289	1-136
00-554-7833	1-147	00-555-9510	1-87	00-580-6795	1-98	00-585-2383	1-228
00-554-8015	1-168	00-555-9761	1-180	00-580-6797	1-98	00-585-5756	1-27
00-554-8018	1-168	00-557-7918	1-182	00-580-6944	1-138	00-585-6208	1-139
00-554-8029	1-138	00-559-3244	1-118	00-580-7152	1-260	00-585-6210	1-146
00-554-8052	1-139	00-559-4659	1-14	00-580-7154	1-261	00-585-6212	1-146
00-554-8084	1-138	00-560-6682	1-193	00-580-7155	1-261	00-585-6305	1-123
00-554-8085	1-138	00-560-7732	1-93	00-580-7156	1-262	00-585-6749	1-169
00-554-8086	1-138	00-561-1544	1-150	00-580-7158	1-262	00-585-6760	1-260
00-554-8087	1-138	00-561-1960	1-27	00-580-7163	1-262	00-585-7293	1-138
00-554-8088	1-138	00-563-2388	1-199	00-580-7169	1-261	00-585-7566	1-192
00-554-8089	1-138	00-563-2389	1-199	00-580-7170	1-261	00-585-7567	1-191
00-554-8699	1-64	00-564-1413	1-133	00-580-7175	1-261	00-585-7706	1-250
00-554-8700	1-64	00-564-3217	1-139	00-580-7177	1-261	00-585-7901	1-261
00-554-8701	1-64	00-565-6241	1-75	00-580-7182	1-261	00-585-8425	1-206
00-554-8702	1-64	00-565-6242	1-75	00-580-7184	1-261	00-585-8426	1-206
00-554-8713	1-190	00-565-7526	1-27	00-580-7186	1-261	00-585-8427	1-206
00-554-9203	1-231	00-567-9211	1-27	00-580-7188	1-262	00-585-8428	1-206
00-554-9362	1-134	00-568-2200	1-142	00-580-7316	1-260	00-585-8429	1-206
00-555-0934	1-131	00-568-2258	1-147	00-580-7323	1-260	00-585-8430	1-206
00-555-1152	1-147	00-568-4742	1-250	00-580-7327	1-260	00-585-8432	1-206
00-555-1352	1-151	00-569-9447	1-27	00-580-7330	1-261	00-585-8433	1-206
00-555-1521	1-250	00-570-0465	1-170	00-580-7331	1-261	00-585-8434	1-250
00-555-1528	1-258	00-570-6896	1-217	00-580-7332	1-261	00-585-8621	1-152
00-555-2074	1-226	00-570-9017	1-208	00-580-7333	1-261	00-585-8769	1-150
00-555-2353	1-243	00-571-5892	1-189	00-580-7334	1-261	00-585-8770	1-150
00-555-2639	1-231	00-571-9648	1-169	00-580-7335	1-261	00-585-9632	1-46
00-555-2658	1-87	00-573-1416	1-147	00-580-7342	1-262	00-586-8463	1-151
00-555-2840	1-21	00-574-6544	1-192	00-580-7343	1-261	00-587-0494	1-27
00-555-2842	1-21	00-574-6558	1-139	00-580-7351	1-260	00-587-5558	1-267
00-555-3499	1-138	00-574-9318	1-233	00-580-7353	1-262	00-588-2587	1-146
00-555-3610	1-256	00-575-6234	1-88	00-580-7354	1-262	00-588-2597	1-147
00-555-4629	1-57	00-576-5545	1-169	00-580-7355	1-262	00-588-2687	1-144
00-555-5207	1-35	00-577-4228	1-54	00-580-7356	1-262	00-589-7960	1-40
00-555-5209	1-34	00-578-3355	1-151	00-580-7357	1-261	00-592-0158	1-147
00-555-5339	1-34	00-580-0334	1-240	00-580-7359	1-261	00-592-1014	1-147
00-555-6378	1-4	00-580-0626	1-26	00-580-7360	1-261	00-595-0135	1-103
00-555-6379	1-4	00-580-2070	1-143	00-580-7361	1-260	00-595-0792	1-174
00-555-6381	1-5	00-580-2120	1-172	00-580-7364	1-261	00-595-0922	1-128
00-555-6382	1-5	00-580-2198	1-183	00-580-7365	1-261	00-595-1088	1-138
00-555-6383	1-4	00-580-2359	1-226	00-580-7408	1-156	00-595-1089	1-138
00-555-6384	1-4	00-580-2958	1-125	00-580-7417	1-149	00-595-1103	1-167
00-555-6385	1-5	00-580-6422	1-186	00-580-7471	1-173	00-595-1278	1-149
00-555-6386	1-5	00-580-6453	1-162	00-580-8171	1-144	00-595-1279	1-149
00-555-8497	1-215	00-580-6618	1-138	00-580-8548	1-162	00-595-1280	1-150
00-555-8837	1-108	00-580-6782	1-98	00-580-9154	1-131	00-595-1281	1-149
00-555-8868	1-212	00-580-6783	1-98	00-580-9979	1-49	00-595-1282	1-149
00-555-8906	1-261	00-580-6785	1-98	00-583-3467	1-169	00-595-1283	1-150
00-555-8910	1-261	00-580-6786	1-98	00-585-0367	1-256	00-595-1284	1-150
00-555-9203	1-261	00-580-6787	1-98	00-585-0431	1-197	00-595-1285	1-149

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-595-1785	1-125	00-596-0940	1-243	00-604-8328	1-131	00-624-1538	1-39
00-595-2612	1-170	00-596-1038	1-269	00-606-3179	1-39	00-624-1933	1-70
00-595-2785	1-131	00-596-1071	1-226	00-606-3825	1-150	00-624-4057	1-139
00-595-2943	1-154	00-596-1075	1-226	00-606-7141	1-69	00-624-4058	1-139
00-595-3102	1-173	00-596-1106	1-235	00-608-1777	1-141	00-624-4059	1-139
00-595-3970	1-174	00-596-1176	1-254	00-608-2589	1-155	00-624-4060	1-139
00-595-3972	1-174	00-596-1199	1-243	00-608-2590	1-154	00-624-5248	1-49
00-595-3978	1-159	00-596-1210	1-244	00-608-4757	1-265	00-624-8065	1-236
00-595-3986	1-159	00-596-1236	1-231	00-609-0165	1-87	00-627-0500	1-58
00-595-3987	1-159	00-596-1263	1-248	00-609-7456	1-195	00-627-4324	1-174
00-595-3988	1-159	00-596-1353	1-249	00-609-8026	1-82	00-627-9603	1-84
00-595-4359	1-142	00-596-1354	1-249	00-610-1888	1-226	00-627-9848	1-140
00-595-4607	1-141	00-596-1355	1-249	00-610-1960	1-64	00-628-0020	1-147
00-595-8197	1-222	00-596-1474	1-272	00-610-3385	1-140	00-628-5633	1-111
00-595-8202	1-255	00-596-1543	1-241	00-611-2548	1-138	00-629-2697	1-57
00-595-8229	1-209	00-596-3645	1-197	00-611-7136	1-57	00-629-6258	1-227
00-595-8267	1-208	00-596-4053	1-223	00-612-1071	1-14	00-630-0092	1-29
00-595-8279	1-226	00-596-4506	1-253	00-613-1859	1-146	00-630-0310	1-155
00-595-8295	1-211	00-596-7051	1-85	00-616-5407	1-1	00-630-4089	1-39
00-595-8316	1-212	00-596-7164	1-215	00-616-5408	1-1	00-630-4873	1-94
00-595-8317	1-212	00-596-8404	1-253	00-616-5409	1-1	00-630-4875	1-94
00-595-8325	1-212	00-596-8502	1-239	00-616-5410	1-1	00-630-9271	1-181
00-595-8396	1-230	00-596-8508	1-243	00-616-5412	1-1	00-631-6821	1-56
00-595-8400	1-213	00-596-8511	1-243	00-616-5426	1-1	00-633-4398	1-150
00-595-8402	1-213	00-596-8556	1-246	00-617-6921	1-151	00-638-0049	1-16
00-595-8403	1-213	00-596-8622	1-242	00-618-0261	1-93	00-638-1168	1-16
00-595-8406	1-213	00-596-8653	1-239	00-618-0868	1-36	00-639-9907	1-138
00-595-8467	1-245	00-596-9155	1-207	00-618-2073	1-28	00-640-0238	1-103
00-595-8850	1-257	00-596-9156	1-207	00-618-2700	1-215	00-640-0632	1-150
00-595-9183	1-248	00-596-9162	1-207	00-618-3572	1-150	00-640-0830	1-161
00-595-9244	1-231	00-596-9313	1-224	00-618-3726	1-96	00-640-1051	1-159
00-595-9295	1-216	00-596-9323	1-209	00-618-4227	1-150	00-640-1892	1-110
00-595-9305	1-236	00-596-9364	1-239	00-618-4433	1-250	00-640-3172	1-67
00-595-9463	1-237	00-596-9369	1-217	00-618-4913	1-221	00-640-3174	1-67
00-595-9471	1-237	00-596-9370	1-218	00-618-5370	1-161	00-640-3176	1-67
00-595-9490	1-215	00-596-9371	1-218	00-618-5625	1-26	00-640-3177	1-67
00-595-9497	1-215	00-596-9604	1-215	00-618-5658	1-43	00-640-3241	1-67
00-595-9498	1-215	00-596-9703	1-218	00-618-6007	1-64	00-640-3243	1-67
00-595-9499	1-215	00-596-9728	1-254	00-618-6623	1-58	00-640-3259	1-67
00-595-9519	1-234	00-600-1762	1-154	00-618-6901	1-233	00-640-3313	1-67
00-595-9532	1-235	00-601-0986	1-110	00-618-6902	1-233	00-640-3314	1-67
00-595-9551	1-235	00-602-3898	1-141	00-618-6903	1-256	00-640-5419	1-207
00-595-9552	1-235	00-602-4845	1-235	00-618-7378	1-147	00-640-5423	1-207
00-595-9555	1-235	00-603-8081	1-56	00-618-7382	1-162	00-640-5424	1-207
00-596-0808	1-218	00-603-9257	1-136	00-618-7621	1-172	00-640-6241	1-161
00-596-0828	1-240	00-604-4988	1-111	00-618-7783	1-257	00-640-6245	1-161
00-596-0836	1-242	00-604-7942	1-131	00-618-8290	1-135	00-640-6246	1-161
00-596-0861	1-239	00-604-7953	1-169	00-618-8485	1-147	00-640-6344	1-130
00-596-0864	1-239	00-604-7978	1-131	00-618-8593	1-170	00-640-6346	1-130
00-596-0865	1-239	00-604-7989	1-131	00-618-9001	1-193	00-640-6347	1-243
00-596-0866	1-239	00-604-8027	1-131	00-618-9069	1-150	00-640-6353	1-235
00-596-0934	1-243	00-604-8050	1-131	00-620-1345	1-209	00-640-6356	1-235
00-596-0938	1-243	00-604-8221	1-131	00-620-1432	1-238	00-640-6361	1-257

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-640-6364	1-250	00-670-9846	1-195	00-691-5442	1-144	00-720-1815	1-108
00-640-6365	1-250	00-673-1885	1-233	00-691-5460	1-144	00-720-1908	1-221
00-640-6477	1-131	00-674-8311	1-142	00-696-4768	1-231	00-720-2007	1-144
00-640-6481	1-131	00-676-7936	1-139	00-698-4035	1-143	00-720-3852	1-163
00-640-6484	1-130	00-677-1289	1-143	00-698-7966	1-210	00-720-3913	1-145
00-640-6500	1-130	00-678-0285	1-172	00-701-2800	1-9	00-720-4171	1-98
00-640-6506	1-130	00-678-1161	1-29	00-701-4378	1-13	00-720-4407	1-176
00-640-6725	1-222	00-678-9458	1-145	00-701-7737	1-173	00-720-4464	1-154
00-640-6731	1-222	00-679-4181	1-39	00-702-4067	1-57	00-720-4467	1-88
00-640-6823	1-164	00-679-4459	1-232	00-702-5003	1-87	00-720-4488	1-179
00-640-6824	1-164	00-679-5655	1-225	00-702-5120	1-39	00-720-4782	1-216
00-640-6825	1-164	00-679-6782	1-39	00-702-5214	1-135	00-720-4849	1-200
00-640-6827	1-164	00-682-7920	1-139	00-702-5377	1-167	00-720-4969	1-240
00-640-6829	1-164	00-683-8586	1-145	00-702-7942	1-28	00-720-4984	1-175
00-640-6831	1-164	00-683-8597	1-243	00-703-4391	1-147	00-722-1185	1-35
00-640-6832	1-164	00-683-8602	1-243	00-703-4402	1-125	00-722-1207	1-175
00-640-6833	1-164	00-683-8830	1-138	00-705-4877	1-26	00-722-1371	1-145
00-640-6834	1-164	00-683-9339	1-161	00-708-3004	1-47	00-722-3461	1-154
00-640-6835	1-164	00-684-0260	1-137	00-708-3431	1-266	00-722-4094	1-199
00-640-6836	1-164	00-684-0738	1-155	00-708-3507	1-139	00-722-4722	1-138
00-640-6837	1-164	00-684-0880	1-179	00-709-0441	1-140	00-722-4723	1-138
00-640-6854	1-164	00-684-3576	1-161	00-709-2778	1-144	00-722-4891	1-168
00-640-6855	1-164	00-684-3796	1-175	00-709-3887	1-161	00-722-7212	1-160
00-640-6856	1-164	00-684-3920	1-215	00-709-7518	1-147	00-722-7214	1-160
00-640-7201	1-170	00-684-4041	1-172	00-709-7520	1-146	00-722-8995	1-82
00-641-4406	1-140	00-684-4064	1-145	00-710-5571	1-145	00-723-2905	1-46
00-641-6183	1-89	00-684-4065	1-144	00-712-6090	1-118	00-723-3549	1-80
00-641-6184	1-89	00-684-4343	1-150	00-715-2761	1-172	00-723-6833	1-226
00-641-6185	1-89	00-684-5074	1-130	00-716-3575	1-90	00-723-7397	1-137
00-641-8898	1-93	00-684-6266	1-151	00-716-4001	1-180	00-724-1998	1-149
00-641-8899	1-93	00-684-6551	1-155	00-716-7716	1-132	00-724-2145	1-246
00-641-8900	1-93	00-684-6911	1-166	00-716-7717	1-140	00-724-2451	1-42
00-647-3311	1-150	00-684-6912	1-166	00-717-1621	1-139	00-724-3767	1-221
00-650-4666	1-185	00-684-6915	1-166	00-717-1701	1-139	00-724-7884	1-33
00-650-7328	1-266	00-684-6916	1-166	00-718-2621	1-144	00-725-3338	1-88
00-650-7821	1-271	00-684-6917	1-145	00-718-4075	1-201	00-725-3594	1-145
00-651-0320	1-36	00-684-7081	1-168	00-718-8195	1-27	00-725-4351	1-160
00-652-4626	1-162	00-684-7157	1-170	00-719-6061	1-214	00-725-4507	1-188
00-654-2938	1-183	00-684-7305	1-168	00-720-0167	1-151	00-725-4513	1-12
00-654-9021	1-132	00-684-7441	1-147	00-720-0182	1-143	00-725-4514	1-12
00-656-1125	1-94	00-684-7451	1-170	00-720-0233	1-170	00-725-4515	1-11
00-661-4660	1-47	00-684-7634	1-165	00-720-0234	1-170	00-725-4519	1-12
00-661-6971	1-49	00-688-7866	1-177	00-720-0461	1-172	00-725-8402	1-88
00-661-6979	1-49	00-689-6844	1-140	00-720-0654	1-254	00-725-9234	1-109
00-661-7062	1-43	00-690-5218	1-194	00-720-0692	1-148	00-726-3831	1-25
00-661-7380	1-49	00-690-5373	1-7	00-720-0711	1-205	00-726-7896	1-21
00-662-1278	1-43		1-10	00-720-0770	1-165	00-726-9346	1-151
00-662-8425	1-44		1-12	00-720-0890	1-154	00-726-9347	1-151
00-664-6655	1-194		1-12	00-720-1096	1-138	00-727-1727	1-128
00-670-0653	1-130	00-690-5395	1-4	00-720-1166	1-162	00-727-3721	1-42
00-670-0753	1-130	00-690-7801	1-126	00-720-1274	1-151	00-727-5458	1-12
00-670-2485	1-181	00-690-8044	1-234	00-720-1508	1-150	00-727-7491	1-150
00-670-3293	1-223	00-691-5441	1-144	00-720-1810	1-175	00-727-9795	1-161

# NIIN Cross Reference Index

NIIN	Page No.	NIIN	Page No.	NIIN	Page No.	NIIN	Page No.
00-728-0996	1-26		1-12	00-753-3911	1-15	00-770-0270	1-118
00-729-5334	1-137	00-735-4563	1-10	00-753-3912	1-15	00-770-4262	1-57
00-729-5338	1-137		1-12	00-753-3913	1-15	00-770-8373	1-6
00-729-5675	1-260		1-12	00-753-3914	1-15		1-7
00-729-5677	1-260	00-735-4564	1-12	00-753-3977	1-2	00-770-8374	1-5
00-729-5678	1-260	00-735-4565	1-4	00-753-4217	1-11		1-7
00-729-5682	1-261	00-735-4567	1-6	00-753-4219	1-10	00-770-8378	1-11
00-729-5683	1-261	00-735-4568	1-6	00-753-6555	1-94	00-770-8379	1-12
00-729-5684	1-260	00-735-4569	1-6	00-754-0661	1-273	00-770-8380	1-12
00-729-5685	1-260	00-735-4571	1-6	00-754-1499	1-217	00-770-8382	1-10
00-729-5686	1-260	00-735-4572	1-6	00-755-7237	1-155	00-770-8385	1-6
00-729-5687	1-260	00-735-4573	1-6	00-756-1145	1-128		1-7
00-729-5688	1-262	00-735-4575	1-6	00-756-1155	1-234	00-770-8390	1-9
00-729-5689	1-260		1-7	00-756-1156	1-234	00-770-8391	1-11
00-729-5690	1-261	00-735-4578	1-6	00-756-1195	1-237	00-770-8392	1-12
00-729-5691	1-261		1-7	00-756-1943	1-155	00-770-8393	1-12
00-729-5692	1-261	00-735-7988	1-266	00-756-8412	1-27	00-770-8394	1-12
00-729-5693	1-261	00-740-2580	1-143	00-756-8416	1-27		1-12
00-729-5694	1-260	00-740-3650	1-29	00-756-9687	1-25	00-770-8396	1-11
00-729-5695	1-260	00-741-6835	1-27	00-757-2840	1-48	00-771-2302	1-12
00-729-5696	1-261	00-745-7786	1-174	00-757-5497	1-87		1-12
00-729-5698	1-260	00-752-8878	1-93	00-758-6653	1-225	00-771-3732	1-208
00-729-5700	1-260	00-752-8879	1-93	00-758-7408	1-44	00-771-4730	1-196
00-729-5701	1-262	00-752-8880	1-93	00-759-2975	1-153	00-771-9424	1-147
00-729-5702	1-261	00-752-9008	1-252	00-760-2597	1-273	00-771-9428	1-138
00-729-5703	1-261	00-752-9030	1-237	00-760-2598	1-273	00-772-2466	1-225
00-729-5706	1-261	00-752-9040	1-179	00-760-2599	1-273	00-772-4142	1-265
00-729-5709	1-262	00-752-9065	1-123	00-760-2600	1-273	00-772-9259	1-9
00-729-5710	1-262	00-752-9343	1-108	00-760-2601	1-273	00-773-0222	1-189
00-729-5711	1-261	00-752-9355	1-270	00-760-2602	1-273	00-773-3791	1-233
00-729-5715	1-262	00-752-9356	1-270	00-761-0212	1-186	00-773-8026	1-231
00-729-5716	1-262	00-752-9357	1-270	00-761-1981	1-195	00-775-0127	1-108
00-729-5717	1-262	00-752-9358	1-270	00-761-2015	1-243	00-775-6980	1-242
00-729-5718	1-262	00-752-9359	1-270	00-762-6428	1-98	00-776-0657	1-109
00-729-5736	1-155	00-752-9360	1-269	00-762-7092	1-70	00-776-1841	1-250
00-729-6392	1-231	00-752-9655	1-168	00-764-4801	1-215	00-777-2782	1-248
00-730-4917	1-87	00-752-9715	1-122	00-764-5222	1-208	00-777-5744	1-84
00-730-7310	1-137	00-752-9809	1-193	00-764-6610	1-6	00-778-1241	1-29
00-730-7361	1-139	00-752-9952	1-138		1-6	00-778-8899	1-95
00-731-2862	1-223	00-753-1108	1-98		1-7	00-778-8967	1-97
00-731-7967	1-49	00-753-1109	1-98		1-7	00-779-5763	1-200
00-733-3884	1-165	00-753-1110	1-98		1-8	00-780-5223	1-159
00-734-5774	1-165	00-753-1111	1-98	00-764-8058	1-239	00-780-5944	1-183
00-735-4534	1-10	00-753-1113	1-98	00-764-8059	1-239	00-781-0446	1-47
00-735-4548	1-6	00-753-2863	1-3	00-764-8097	1-239	00-781-0447	1-47
	1-7	00-753-2865	1-3	00-764-8770	1-166	00-781-0466	1-47
00-735-4549	1-7	00-753-2867	1-3	00-765-4144	1-205	00-781-0478	1-47
00-735-4550	1-11	00-753-2886	1-93	00-766-9028	1-154	00-781-0819	1-236
00-735-4551	1-11	00-753-2887	1-93	00-766-9029	1-155	00-781-2085	1-47
00-735-4558	1-8	00-753-2888	1-93	00-767-7582	1-221	00-781-6089	1-166
00-735-4559	1-8	00-753-3751	1-12	00-767-9126	1-57	00-781-6318	1-119
00-735-4562	1-7	00-753-3875	1-9	00-770-0267	1-134	00-781-6390	1-59
	1-10		1-10	00-770-0268	1-119	00-781-6796	1-47

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-781-6797	1-47	00-802-1834	1-12	00-810-4507	1-129	00-821-0251	1-151
00-781-7261	1-47	00-802-1835	1-12	00-810-5861	1-21	00-821-0808	1-1
00-781-7294	1-45		1-12	00-810-8982	1-216	00-821-1027	1-260
00-781-7306	1-48	00-802-1836	1-12	00-811-2144	1-27	00-821-1029	1-260
00-781-7891	1-230	00-802-1837	1-12	00-811-7028	1-27	00-821-1030	1-260
00-781-8960	1-28	00-802-1838	1-11	00-812-1175	1-144	00-821-1031	1-260
00-782-3038	1-14	00-802-1858	1-11	00-812-2431	1-26	00-821-8404	1-96
00-782-3039	1-15	00-802-1859	1-6	00-812-2588	1-131	00-822-2250	1-81
00-782-3040	1-14		1-7	00-812-5036	1-170	00-822-6537	1-156
00-782-3041	1-15	00-802-2818	1-144	00-813-1286	1-214	00-822-6539	1-156
00-782-3042	1-14	00-802-2938	1-9	00-813-5709	1-2	00-822-7655	1-156
00-782-5125	1-101	00-802-8314	1-16	00-813-6923	1-162	00-822-7656	1-156
00-782-5431	1-89	00-802-8383	1-16	00-813-7478	1-21	00-822-7657	1-156
00-782-6560	1-193	00-803-2326	1-11	00-813-9002	1-83	00-822-9120	1-159
00-782-7210	1-152	00-803-3301	1-137	00-813-9050	1-139	00-823-8634	1-10
00-782-8251	1-152	00-803-5839	1-120	00-813-9872	1-131		1-12
00-785-1162	1-203	00-803-6339	1-219	00-814-1101	1-14		1-12
00-785-1785	1-39	00-803-6444	1-204	00-814-5781	1-99	00-824-2294	1-45
00-785-3895	1-273	00-803-7157	1-139	00-814-5790	1-99	00-824-2336	1-46
00-785-8151	1-243	00-803-9672	1-139	00-814-5825	1-99	00-824-8096	1-136
00-788-4700	1-26	00-803-9701	1-139	00-814-5827	1-99	00-824-9197	1-103
00-788-5407	1-242	00-804-1933	1-160	00-814-5831	1-99	00-824-9856	1-57
00-788-7406	1-27	00-804-2307	1-96	00-814-5847	1-99	00-825-0332	1-260
00-789-0093	1-238	00-804-2308	1-96	00-814-5851	1-99	00-825-0894	1-28
00-789-0637	1-27	00-804-2719	1-88	00-814-6236	1-161	00-825-1460	1-150
00-789-1058	1-91	00-805-1061	1-26	00-814-6919	1-26	00-825-3021	1-155
00-789-1151	1-27	00-805-1404	1-170	00-814-6920	1-26	00-825-5894	1-131
00-789-4863	1-139	00-805-7536	1-145	00-814-6921	1-26	00-825-7088	1-262
00-790-4862	1-184	00-805-8336	1-16	00-814-6929	1-26	00-825-7090	1-262
00-792-8984	1-132	00-805-8383	1-113	00-815-4791	1-1	00-825-7111	1-262
00-793-1036	1-27	00-806-0035	1-38	00-815-4792	1-1	00-825-7119	1-262
00-793-2732	1-170	00-806-1000	1-211	00-815-6354	1-138	00-825-7126	1-262
00-793-9809	1-142	00-806-5902	1-145	00-815-6491	1-152	00-825-7130	1-262
00-793-9811	1-142	00-806-7968	1-158	00-816-1791	1-266	00-825-7132	1-262
00-794-2280	1-161	00-806-9551	1-215	00-816-3819	1-118	00-825-7133	1-262
00-794-5979	1-152	00-807-2274	1-161	00-816-4489	1-194	00-825-7304	1-166
00-795-0945	1-162	00-807-4197	1-1	00-816-4569	1-27	00-826-1125	1-262
00-795-5793	1-153	00-807-9337	1-49	00-816-4793	1-145	00-826-2190	1-180
00-796-0334	1-150	00-808-1581	1-59	00-816-4949	1-130	00-826-3453	1-135
00-796-9680	1-193	00-808-2144	1-55	00-817-1891	1-168	00-826-3897	1-155
00-797-2488	1-138	00-808-7703	1-27	00-817-6578	1-149	00-826-4278	1-144
00-797-2992	1-243	00-808-7920	1-156	00-817-7781	1-138	00-826-4782	1-134
00-797-2994	1-243	00-809-4063	1-13	00-818-5062	1-153	00-826-6007	1-231
00-799-6002	1-159	00-809-7167	1-82	00-818-6582	1-153	00-826-7650	1-27
00-799-8860	1-273	00-809-7702	1-27	00-818-8926	1-29	00-827-2967	1-231
00-800-2585	1-172	00-809-8802	1-138	00-818-9947	1-155	00-827-3937	1-56
00-800-4788	1-168	00-809-9427	1-143	00-818-9948	1-155	00-827-5445	1-59
00-801-0952	1-59	00-810-1966	1-49	00-819-9162	1-153	00-827-5897	1-157
00-801-0953	1-59	00-810-4499	1-168	00-820-2110	1-40	00-827-9291	1-144
00-801-1048	1-12	00-810-4503	1-129	00-820-2995	1-239	00-828-4460	1-27
00-801-5342	1-96	00-810-4504	1-129	00-820-5145	1-81	00-828-8799	1-167
00-802-1833	1-12	00-810-4505	1-129	00-820-8090	1-259	00-828-8800	1-167
	1-12	00-810-4506	1-129	00-820-8167	1-260	00-829-3036	1-131

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-829-7691	1-251	00-840-9344	1-27	00-857-1733	1-138	00-877-6298	1-151
00-829-9857	1-49	00-841-1390	1-4	00-857-1734	1-138	00-877-7408	1-131
00-830-1038	1-49		1-6	00-857-1736	1-138	00-877-7417	1-131
00-831-1051	1-248		1-7	00-859-6594	1-109	00-877-9876	1-148
00-831-1052	1-248		1-7	00-860-6971	1-27	00-878-0387	1-184
00-831-1053	1-248	00-841-2837	1-262	00-861-1814	1-145	00-878-0397	1-184
00-831-1054	1-248	00-841-8702	1-257	00-861-2334	1-27	00-878-0398	1-184
00-831-1055	1-248	00-842-0065	1-155	00-863-4943	1-243	00-878-0402	1-184
00-831-8365	1-35	00-842-0067	1-155	00-863-4944	1-243	00-878-0405	1-184
00-832-4308	1-29	00-842-1138	1-146	00-863-8546	1-96	00-878-2158	1-56
00-832-4906	1-273	00-842-1139	1-146	00-864-0575	1-36	00-878-2882	1-56
00-832-4908	1-273	00-842-2198	1-146	00-864-5913	1-47	00-878-4736	1-161
00-832-4914	1-273	00-842-2199	1-146	00-864-9036	1-95	00-878-5932	1-230
00-832-6221	1-239	00-842-2200	1-147	00-865-2229	1-261	00-878-6157	1-27
00-833-0289	1-159	00-842-2201	1-147	00-865-2232	1-262	00-878-6519	1-215
00-833-0291	1-159	00-842-2202	1-146	00-865-2470	1-29	00-878-8583	1-164
00-833-1325	1-29	00-842-3162	1-159	00-865-2701	1-29	00-878-8693	1-95
00-833-5068	1-105	00-842-6484	1-143	00-865-2759	1-188	00-878-9819	1-89
00-833-6118	1-254	00-843-0269	1-147	00-865-4208	1-258	00-879-2128	1-79
00-833-8668	1-151	00-843-1505	1-170	00-865-4209	1-258	00-879-2133	1-79
00-833-9800	1-170	00-843-8393	1-27	00-865-4221	1-255	00-879-2137	1-81
00-834-0507	1-29	00-844-3483	1-146	00-865-4222	1-255	00-879-2362	1-166
00-834-0708	1-93	00-844-3591	1-28	00-865-4223	1-255	00-879-3547	1-243
00-834-3594	1-190	00-845-1096	1-180	00-865-4224	1-255	00-879-4882	1-50
00-834-3984	1-151	00-845-3032	1-139	00-865-4225	1-255	00-879-4998	1-233
00-834-5035	1-145	00-845-4983	1-144	00-865-4226	1-255	00-879-5398	1-142
00-834-5667	1-175	00-845-9150	1-16	00-865-4228	1-255	00-879-5473	1-193
00-834-6187	1-169	00-846-0956	1-140	00-865-4229	1-255	00-880-0743	1-27
00-834-7854	1-113	00-846-9210	1-130	00-865-9251	1-144	00-880-1273	1-142
00-834-9560	1-166	00-847-0035	1-160	00-866-1393	1-27	00-880-1310	1-65
00-835-1646	1-59	00-847-1710	1-139	00-866-1829	1-166	00-880-1311	1-65
00-836-3498	1-144	00-848-7283	1-146	00-866-6131	1-28	00-880-1312	1-65
00-836-7189	1-139	00-849-0871	1-129	00-867-5515	1-221	00-880-1316	1-56
00-836-7807	1-143	00-849-1033	1-27	00-867-5517	1-221	00-880-3539	1-151
00-837-0685	1-161	00-849-1141	1-227	00-868-1589	1-84	00-880-4560	1-237
00-837-0990	1-209	00-849-1220	1-179	00-868-5779	1-137	00-880-4565	1-237
00-837-2459	1-150	00-849-1356	1-28	00-869-6418	1-26	00-880-4570	1-237
00-837-3649	1-88	00-850-3292	1-257	00-869-7945	1-21	00-880-4574	1-237
00-837-7073	1-143	00-850-3828	1-175	00-870-4796	1-265	00-880-4583	1-237
00-837-7595	1-257	00-850-6313	1-238	00-870-5266	1-38	00-880-4592	1-172
00-838-2184	1-139	00-851-1940	1-143	00-870-6928	1-240	00-880-4604	1-237
00-838-3533	1-95	00-851-4247	1-240	00-871-5882	1-244	00-880-6448	1-4
00-838-5033	1-33	00-851-7021	1-58	00-871-6729	1-151	00-880-7011	1-155
00-838-5245	1-257	00-851-9319	1-105	00-872-1411	1-56	00-881-0049	1-55
00-838-5300	1-257	00-852-6227	1-142	00-872-4869	1-231	00-881-0992	1-190
00-838-8588	1-49	00-853-4538	1-250	00-872-6776	1-174	00-881-0994	1-196
00-838-9889	1-151	00-854-7122	1-49	00-873-3885	1-166	00-881-5536	1-147
00-839-5843	1-167	00-855-2144	1-94	00-873-3998	1-229	00-882-0008	1-70
00-839-8139	1-250	00-856-3471	1-270	00-873-4006	1-229	00-882-0013	1-192
00-840-3358	1-223	00-857-1729	1-138	00-875-8059	1-87	00-882-1215	1-70
00-840-8610	1-38	00-857-1730	1-138	00-875-8264	1-166	00-882-1219	1-70
00-840-8611	1-38	00-857-1731	1-138	00-876-8910	1-262	00-882-1228	1-70
00-840-8721	1-174	00-857-1732	1-138	00-877-5305	1-98	00-882-1230	1-70



# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-882-1738	1-138	00-892-4375	1-83	00-900-6113	1-227	00-912-6668	1-114
00-882-5322	1-87	00-892-4379	1-83	00-900-6118	1-227	00-912-6748	1-5
00-883-0888	1-26	00-892-4380	1-83	00-900-8737	1-57	00-913-1065	1-113
00-883-1159	1-29	00-892-4525	1-77	00-900-9514	1-254	00-913-4750	1-56
00-883-3003	1-237	00-892-4556	1-81	00-901-0826	1-141	00-913-5843	1-239
00-883-9038	1-137	00-892-4557	1-81	00-901-4458	1-89	00-913-5967	1-146
00-885-7570	1-128	00-892-4560	1-79	00-902-3983	1-267	00-913-6500	1-141
00-886-1321	1-50	00-892-4561	1-79	00-902-6689	1-25	00-913-7330	1-151
00-886-3802	1-192	00-892-4677	1-65	00-902-7305	1-23	00-914-3690	1-5
00-886-6251	1-89	00-892-4950	1-273	00-902-8991	1-159	00-914-6105	1-177
00-886-8203	1-174	00-892-5485	1-227	00-903-3755	1-188	00-914-7531	1-47
00-888-5826	1-223	00-892-5488	1-190	00-903-4451	1-153	00-914-8390	1-56
00-888-5831	1-223	00-892-5494	1-109	00-903-6378	1-126	00-914-8671	1-45
00-888-6075	1-139	00-892-5596	1-162	00-903-8545	1-229	00-914-9851	1-168
00-888-8000	1-224	00-892-5663	1-156	00-903-8546	1-229	00-915-4587	1-230
00-888-8007	1-246	00-892-5698	1-186	00-903-8552	1-229	00-915-7096	1-40
00-889-1796	1-244	00-892-5744	1-227	00-903-8553	1-229	00-916-2940	1-138
00-889-2050	1-247	00-892-5844	1-206	00-903-8555	1-229	00-916-3368	1-163
00-889-2134	1-254	00-892-5847	1-217	00-904-6699	1-13	00-916-6302	1-46
00-889-2162	1-231	00-892-5850	1-124	00-904-8172	1-147	00-916-8342	1-97
00-889-2163	1-231	00-892-5913	1-129	00-905-3206	1-49	00-916-9251	1-43
00-889-2197	1-152	00-892-5914	1-129	00-905-5446	1-115	00-917-7430	1-49
00-889-2468	1-162	00-892-5931	1-240	00-905-6728	1-239	00-918-3606	1-29
00-889-2473	1-147	00-892-6263	1-227	00-905-6729	1-239	00-918-8506	1-200
00-889-2474	1-147	00-892-6270	1-154	00-905-6730	1-239	00-919-1217	1-123
00-889-2475	1-147	00-893-5429	1-139	00-905-9524	1-142	00-919-3443	1-94
00-889-2476	1-147	00-893-5686	1-232	00-906-0168	1-251	00-919-4651	1-168
00-889-2478	1-147	00-893-8622	1-130	00-906-1459	1-184	00-919-7367	1-146
00-889-2492	1-108	00-893-8623	1-130	00-906-8988	1-47	00-919-9096	1-26
00-889-5309	1-262	00-893-8624	1-130	00-906-8992	1-47	00-920-5391	1-25
00-889-5316	1-262	00-893-8626	1-130	00-907-8076	1-58	00-921-5771	1-271
00-889-5779	1-194	00-893-8627	1-130	00-908-3193	1-151	00-922-6921	1-21
00-889-6499	1-263	00-893-8628	1-130	00-908-3194	1-151	00-923-9620	1-250
00-889-6603	1-260	00-893-8629	1-130	00-908-3195	1-151	00-924-0578	1-190
00-889-6610	1-260	00-893-8631	1-130	00-908-6292	1-151	00-925-4752	1-166
00-889-6617	1-260	00-894-1033	1-2	00-908-6293	1-151	00-926-0617	1-98
00-889-6619	1-260	00-895-7076	1-2	00-908-6294	1-151	00-926-0619	1-98
00-889-6629	1-261	00-895-9566	1-251	00-909-8627	1-151	00-926-0620	1-98
00-889-6976	1-262	00-897-5591	1-145	00-910-2549	1-55	00-926-0644	1-98
00-889-6977	1-262	00-897-5930	1-147	00-910-2550	1-55	00-926-1081	1-79
00-889-7745	1-254	00-898-5108	1-138	00-910-2551	1-55	00-926-1180	1-131
00-889-8991	1-254	00-898-5282	1-189	00-910-2553	1-55	00-926-1196	1-131
00-890-4727	1-27	00-899-4510	1-96	00-910-2554	1-55	00-926-1197	1-131
00-890-5014	1-139	00-899-4758	1-143	00-910-9335	1-48	00-926-1199	1-131
00-891-1947	1-162	00-900-0733	1-167	00-911-7127	1-143	00-926-1201	1-131
00-891-3461	1-4	00-900-1283	1-250	00-911-8322	1-47	00-926-3709	1-79
00-891-4894	1-187	00-900-1685	1-59	00-912-1085	1-232	00-926-3710	1-79
00-891-9967	1-160	00-900-2063	1-257	00-912-5778	1-5	00-926-3712	1-79
00-892-3943	1-89	00-900-2856	1-55	00-912-6029	1-257	00-926-3713	1-79
00-892-4028	1-94	00-900-3296	1-143	00-912-6030	1-257	00-926-3716	1-80
00-892-4372	1-83	00-900-6097	1-227	00-912-6031	1-257	00-926-3718	1-80
00-892-4373	1-83	00-900-6109	1-227	00-912-6032	1-257	00-926-3721	1-80
00-892-4374	1-83	00-900-6110	1-227	00-912-6172	1-5	00-926-3727	1-80

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-926-3728	1-79	00-935-1656	1-108	00-946-5318	1-49	00-965-0288	1-200
00-926-3734	1-80	00-935-1669	1-108	00-947-2735	1-26	00-965-0326	1-230
00-926-3737	1-79	00-935-4612	1-243	00-947-4290	1-144	00-965-0595	1-113
00-926-4143	1-131	00-935-4641	1-231	00-947-4397	1-49	00-965-0603	1-227
00-926-4148	1-131	00-935-4660	1-218	00-947-6308	1-189	00-965-0604	1-248
00-926-4150	1-131	00-935-5432	1-109	00-948-9003	1-147	00-965-0609	1-241
00-926-4177	1-131	00-935-5433	1-109	00-948-9314	1-148	00-965-0878	1-209
00-926-4277	1-140	00-935-7309	1-251	00-948-9623	1-148	00-965-0879	1-222
00-926-5175	1-223	00-935-7310	1-250	00-949-5580	1-124	00-965-1211	1-185
00-926-7116	1-232	00-935-7311	1-242	00-949-5581	1-124	00-965-7206	1-49
00-927-1063	1-206	00-935-7313	1-242	00-949-5938	1-44	00-966-5695	1-170
00-927-5561	1-124	00-935-7315	1-251	00-949-8240	1-181	00-967-1798	1-50
00-927-8963	1-266	00-935-7333	1-250	00-949-8694	1-166	00-967-4828	1-188
00-928-3438	1-93	00-935-7340	1-232	00-950-0087	1-145	00-967-8763	1-27
00-928-4506	1-154	00-935-7370	1-246	00-950-2956	1-79	00-967-8997	1-139
00-928-6571	1-147	00-935-7372	1-246	00-950-2960	1-79	00-967-9521	1-173
00-929-1092	1-138	00-935-7410	1-242	00-950-2961	1-80	00-968-1350	1-94
00-929-1105	1-140	00-935-7420	1-243	00-951-5426	1-88	00-968-1351	1-94
00-929-1107	1-147	00-935-7474	1-243	00-952-0038	1-147	00-968-1352	1-94
00-929-1191	1-4	00-935-7487	1-242	00-952-0108	1-231	00-968-1353	1-94
00-929-3399	1-149	00-935-7490	1-242	00-952-3507	1-227	00-968-1356	1-93
00-929-3464	1-173	00-935-9382	1-146	00-953-6440	1-53	00-968-1357	1-93
00-929-5705	1-148	00-935-9490	1-144	00-954-1269	1-244	00-968-1358	1-93
00-929-6211	1-145	00-936-2173	1-156	00-954-1270	1-244	00-969-0071	1-223
00-930-4513	1-138	00-936-2174	1-156	00-954-1281	1-169	00-970-3952	1-26
00-930-4515	1-138	00-937-0229	1-145	00-954-2641	1-138	00-970-8947	1-232
00-930-7503	1-238	00-937-0234	1-147	00-956-2871	1-88	00-971-3567	1-192
00-930-7504	1-230	00-937-6012	1-16	00-956-4103	1-64	00-972-0874	1-59
00-931-0975	1-148	00-938-5758	1-29	00-956-4109	1-64	00-972-5789	1-163
00-931-4610	1-152	00-939-8492	1-150	00-956-4754	1-94	00-975-2885	1-139
00-931-8793	1-93	00-941-2707	1-216	00-957-1824	1-143	00-975-2969	1-110
00-932-4753	1-164	00-941-3347	1-48	00-957-5655	1-185	00-977-3255	1-157
00-932-5565	1-48	00-941-3348	1-48	00-957-7882	1-156	00-977-8774	1-146
00-932-7421	1-33	00-941-8593	1-192	00-957-7910	1-10	00-978-2190	1-46
00-933-1462	1-139	00-942-8219	1-46		1-45	00-978-7206	1-189
00-933-1463	1-139	00-942-8220	1-46	00-958-7093	1-99	00-979-4040	1-121
00-933-5356	1-25	00-942-9147	1-143	00-958-8038	1-99	00-980-0502	1-28
00-933-5878	1-139	00-943-0941	1-250	00-958-8039	1-99	00-980-3422	1-258
00-933-8979	1-241	00-943-1031	1-28	00-958-8040	1-99	00-980-3423	1-258
00-934-0295	1-88	00-943-1676	1-59	00-959-3815	1-149	00-980-7721	1-196
00-934-8026	1-142	00-943-3359	1-152	00-960-4568	1-141	00-981-4694	1-193
00-935-0730	1-272	00-943-5137	1-40	00-960-4569	1-141	00-982-1360	1-147
00-935-0731	1-272	00-943-5230	1-39	00-961-1973	1-153	00-982-2481	1-160
00-935-0732	1-272	00-943-8266	1-49	00-961-5480	1-105	00-982-2482	1-160
00-935-0733	1-272	00-944-4268	1-236	00-961-9174	1-129	00-982-5113	1-64
00-935-0734	1-272	00-944-4485	1-26	00-961-9175	1-129	00-982-9736	1-147
00-935-0735	1-273	00-944-7566	1-49	00-961-9205	1-27	00-983-2873	1-29
00-935-0736	1-273	00-944-7588	1-49	00-962-2739	1-179	00-984-0220	1-80
00-935-0737	1-273	00-945-7790	1-124	00-962-2984	1-28	00-984-0223	1-79
00-935-0738	1-273	00-945-8055	1-207	00-962-7580	1-251	00-984-0224	1-79
00-935-0739	1-273	00-946-0436	1-93	00-964-0262	1-53	00-984-0247	1-231
00-935-0772	1-231	00-946-2700	1-193	00-964-0264	1-53	00-984-3405	1-65
00-935-0890	1-215	00-946-2970	1-28	00-964-1006	1-26	00-984-3475	1-111

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
00-984-3800	1-79	01-004-0357	1-46	01-018-2127	1-61	01-026-9133	1-162
00-984-4997	1-150	01-004-2718	1-231	01-018-3780	1-197	01-026-9141	1-162
00-985-1293	1-137	01-004-8348	1-148	01-018-4220	1-69	01-026-9143	1-148
00-986-5899	1-203	01-006-3855	1-90	01-018-4221	1-69	01-026-9144	1-148
00-987-9073	1-142	01-006-9147	1-43	01-018-4224	1-69	01-026-9147	1-148
00-988-2894	1-63	01-006-9149	1-43	01-018-6550	1-139	01-026-9149	1-148
00-988-2895	1-63	01-006-9150	1-43	01-018-8956	1-232	01-026-9151	1-148
00-988-3181	1-87	01-006-9514	1-42	01-019-0802	1-265	01-026-9152	1-148
00-988-5655	1-257	01-006-9515	1-42	01-019-1772	1-220	01-026-9154	1-148
00-988-5664	1-257	01-006-9516	1-42	01-019-7377	1-46	01-026-9156	1-138
00-988-5665	1-257	01-007-1940	1-139	01-019-8081	1-238	01-026-9158	1-138
00-988-5673	1-257	01-007-5232	1-145	01-019-8976	1-139	01-027-2212	1-195
00-988-5674	1-257	01-007-8999	1-273	01-019-9156	1-134	01-027-2296	1-133
00-988-5683	1-257	01-007-9167	1-58	01-020-2048	1-38	01-027-2652	1-148
00-988-5684	1-257	01-008-7577	1-57	01-020-4709	1-196	01-027-2653	1-148
00-988-5695	1-257	01-008-7578	1-57	01-021-1586	1-139	01-027-3183	1-33
00-988-5696	1-257	01-008-7580	1-57	01-021-5663	1-139	01-027-4728	1-43
00-988-5697	1-257	01-008-7639	1-63	01-021-6334	1-90	01-027-8920	1-196
00-988-5701	1-257	01-009-6257	1-65	01-021-6339	1-98	01-028-0937	1-234
00-988-5702	1-257	01-009-6258	1-65	01-021-6340	1-98	01-028-1350	1-138
00-988-5703	1-257	01-009-9520	1-153	01-022-1541	1-120	01-028-1442	1-200
00-989-3167	1-173	01-010-0997	1-172	01-022-2102	1-89	01-028-3837	1-94
00-989-3550	1-149	01-010-0998	1-172	01-022-3151	1-147	01-028-3840	1-94
00-989-4589	1-108	01-010-0999	1-172	01-022-3152	1-171	01-028-3841	1-94
00-989-6263	1-26	01-010-1000	1-172	01-022-3153	1-171	01-028-3843	1-94
00-989-6479	1-139	01-010-1001	1-172	01-022-3163	1-98	01-028-7102	1-234
00-989-7459	1-164	01-010-1002	1-172	01-022-3164	1-98	01-028-7145	1-59
00-990-2096	1-169	01-010-1003	1-172	01-022-4452	1-137	01-028-7493	1-203
00-990-4450	1-253	01-010-4483	1-221	01-022-4455	1-140	01-029-2857	1-170
00-990-5555	1-155	01-010-4775	1-265	01-022-5667	1-98	01-029-4127	1-90
00-990-6078	1-150	01-010-4776	1-265	01-022-7901	1-200	01-029-4157	1-2
00-990-6108	1-142	01-010-6123	1-172	01-022-8501	1-121	01-029-5401	1-136
00-991-1907	1-245	01-010-6290	1-145	01-023-0241	1-63	01-029-8736	1-114
00-991-8117	1-173	01-010-6291	1-144	01-023-7259	1-131	01-030-4942	1-188
00-991-8624	1-174	01-012-5020	1-223	01-023-7330	1-189	01-030-7179	1-172
00-993-0579	1-26	01-012-5660	1-147	01-023-7726	1-147	01-031-1094	1-119
00-993-3967	1-26	01-012-6806	1-129	01-023-7729	1-176	01-031-2839	1-141
00-993-5036	1-129	01-013-0312	1-161	01-023-7776	1-164	01-031-5900	1-158
00-995-1559	1-143	01-013-1676	1-242	01-024-0910	1-147	01-031-7120	1-134
00-995-1870	1-255	01-013-3459	1-70	01-024-0911	1-148	01-031-9694	1-61
00-996-8258	1-151	01-014-6856	1-253	01-024-7127	1-161	01-032-0082	1-160
00-996-9654	1-64	01-014-9032	1-70	01-024-8613	1-164	01-032-5696	1-191
00-996-9656	1-64	01-015-5194	1-121	01-025-0341	1-196	01-032-6017	1-148
00-997-2858	1-240	01-015-6762	1-115	01-025-1415	1-118	01-032-7496	1-228
00-997-4237	1-218	01-015-7518	1-154	01-025-4005	1-25	01-033-0597	1-27
00-998-4418	1-119	01-015-8426	1-70	01-025-8126	1-180	01-033-2134	1-241
00-998-7291	1-28	01-015-8846	1-42	01-025-9583	1-129	01-033-6240	1-2
00-998-8414	1-46	01-016-9923	1-173	01-026-1387	1-66		1-6
00-998-8624	1-48	01-017-1200	1-197	01-026-1854	1-90		1-7
00-999-8994	1-138	01-017-4340	1-27	01-026-3302	1-27	01-033-6395	1-65
01-003-1064	1-139	01-017-5123	1-146	01-026-6161	1-138	01-033-7237	1-187
01-003-4178	1-55	01-017-8313	1-154	01-026-7466	1-158	01-033-7238	1-187
01-003-5530	1-195	01-017-8590	1-61	01-026-9131	1-162	01-033-8751	1-65

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
01-034-1491	1-35	01-046-0355	1-65	01-056-8343	1-108	01-073-6062	1-158
01-034-5033	1-250	01-046-0356	1-65	01-056-9580	1-126	01-073-6183	1-191
01-034-6884	1-241	01-046-4980	1-271	01-056-9586	1-164	01-074-0337	1-139
01-034-8231	1-272	01-046-5079	1-231	01-057-1002	1-58	01-074-0793	1-25
01-035-6601	1-138	01-046-6807	1-173	01-057-1985	1-157	01-074-1522	1-69
01-036-0728	1-181	01-046-7053	1-66	01-057-4138	1-196	01-074-5046	1-188
01-036-4035	1-128	01-046-7064	1-66	01-058-4993	1-188	01-074-6036	1-168
01-036-7331	1-173	01-047-3091	1-66	01-058-9728	1-192	01-074-6573	1-221
01-036-8942	1-250	01-048-0636	1-139	01-059-1099	1-131	01-074-8873	1-139
01-037-0893	1-173	01-048-1232	1-135	01-060-0423	1-43	01-074-9983	1-57
01-037-2495	1-56	01-048-4454	1-25	01-060-8915	1-199	01-075-0761	1-206
01-037-4884	1-167	01-048-5049	1-184	01-061-1504	1-192	01-075-0762	1-206
01-037-5773	1-55	01-048-5451	1-70	01-061-2568	1-139	01-075-0763	1-206
01-037-6265	1-107	01-048-5620	1-64	01-061-2584	1-150	01-075-1200	1-243
01-037-7268	1-56	01-048-6717	1-185	01-061-2587	1-27	01-075-1220	1-273
01-038-1746	1-28	01-048-9400	1-121	01-061-3177	1-139	01-075-2597	1-250
01-038-6001	1-107	01-048-9515	1-122	01-061-4150	1-150	01-075-5071	1-173
01-038-7429	1-137	01-048-9516	1-122	01-061-4977	1-27	01-075-7324	1-109
01-038-7682	1-127	01-048-9517	1-122	01-061-5705	1-110	01-075-7325	1-109
01-039-1870	1-115	01-048-9518	1-118	01-061-6627	1-27	01-076-1515	1-147
01-039-1876	1-115	01-049-0975	1-118	01-061-9242	1-186	01-076-3289	1-109
01-039-3494	1-56	01-049-0977	1-120	01-062-4535	1-25	01-076-7460	1-197
01-040-3438	1-49	01-049-0978	1-119	01-063-1899	1-127	01-076-9359	1-173
01-040-4287	1-160	01-049-0979	1-118	01-063-4004	1-232	01-077-0858	1-173
01-040-4863	1-43	01-049-0981	1-122	01-063-5996	1-118	01-077-1603	1-115
01-040-5532	1-162	01-049-0983	1-122	01-063-7414	1-55	01-077-4893	1-163
01-040-8943	1-212	01-049-0984	1-122	01-064-2626	1-17	01-077-8773	1-113
01-041-3168	1-114	01-049-0985	1-118	01-064-2627	1-13	01-078-0652	1-128
01-041-4924	1-66	01-049-0986	1-117	01-064-5895	1-133	01-078-6125	1-59
01-041-5028	1-65	01-049-0987	1-118	01-064-7927	1-164	01-078-8351	1-58
01-041-6792	1-65	01-049-0989	1-117	01-065-2211	1-228	01-079-2822	1-59
01-041-7130	1-41	01-049-3696	1-147	01-065-7552	1-147	01-079-7461	1-135
01-041-7219	1-164	01-049-9419	1-26	01-065-9037	1-228	01-080-0062	1-191
01-041-8434	1-66	01-050-0794	1-56	01-066-3266	1-118	01-080-0105	1-135
01-042-0892	1-65	01-050-0817	1-71	01-067-1569	1-140	01-080-6399	1-164
01-042-3186	1-164	01-050-5055	1-43	01-067-3933	1-156	01-080-6420	1-66
01-042-9681	1-164	01-050-7870	1-65	01-067-5011	1-251	01-081-0322	1-114
01-042-9688	1-121	01-051-0328	1-127	01-067-6472	1-139	01-081-7826	1-267
01-043-1518	1-70	01-051-1390	1-65	01-067-8254	1-25	01-082-2171	1-12
01-043-5999	1-159	01-051-1391	1-65	01-068-8266	1-38	01-082-2548	1-63
01-044-1668	1-185	01-051-1960	1-25	01-069-6405	1-166	01-083-2373	1-38
01-044-3699	1-28	01-051-2566	1-66	01-069-7849	1-110	01-083-6480	1-7
01-044-3738	1-66	01-051-4114	1-257	01-069-9176	1-56		1-10
01-044-5749	1-59	01-052-9700	1-135	01-070-9109	1-25	01-083-9317	1-215
01-044-7232	1-161	01-052-9901	1-119	01-070-9110	1-25	01-084-0921	1-117
01-045-0316	1-56	01-053-2557	1-83	01-070-9208	1-248	01-084-2543	1-43
01-045-0317	1-56	01-053-3392	1-64	01-071-2993	1-226	01-084-7923	1-7
01-045-1817	1-58	01-053-7932	1-257	01-071-4296	1-125	01-084-7924	1-7
01-045-2619	1-28	01-054-3762	1-172	01-071-4961	1-15	01-084-7926	1-7
01-045-4946	1-257	01-055-5677	1-184	01-071-5356	1-228	01-084-7927	1-7
01-045-9154	1-65	01-055-7882	1-140	01-072-7433	1-38	01-084-7928	1-7
01-045-9724	1-6	01-055-8347	1-120	01-072-7987	1-228	01-084-7929	1-7
	1-7	01-056-0883	1-108	01-073-5950	1-69	01-084-7930	1-7

# NIIN Cross Reference Index

NIIN	Page No.	NIIN	Page No.	NIIN	Page No.	NIIN	Page No.
01-084-7931	1-7	01-095-2607	1-38		1-50	01-119-8807	1-49
01-084-7932	1-7	01-095-7013	1-152	01-106-9651	1-147	01-119-9009	1-188
01-084-7933	1-7	01-097-0758	1-25	01-107-2000	1-146	01-119-9058	1-93
01-084-7934	1-7	01-097-0977	1-144	01-108-3831	1-43	01-119-9923	1-123
01-084-7935	1-7	01-097-4520	1-228	01-108-4530	1-5	01-120-2876	1-141
01-084-7936	1-7	01-097-7966	1-6		1-6	01-120-7303	1-13
01-084-7948	1-7		1-7		1-46	01-120-8721	1-224
01-085-3344	1-192	01-097-8113	1-10	01-108-4531	1-8	01-120-9349	1-124
01-085-3346	1-191		1-12	01-108-4534	1-8	01-120-9481	1-96
01-085-3721	1-119		1-45		1-46	01-121-0432	1-39
01-085-8964	1-7	01-098-2496	1-31	01-108-4713	1-69	01-121-0512	1-115
01-086-1210	1-119	01-098-5322	1-25	01-108-4714	1-69	01-121-0873	1-139
01-086-7670	1-121	01-098-6488	1-66	01-108-4715	1-69	01-121-1778	1-45
01-087-8886	1-147	01-098-7327	1-88	01-108-4716	1-69	01-121-1779	1-44
01-088-2952	1-98	01-099-2285	1-63	01-108-4717	1-69	01-121-1798	1-42
01-088-3444	1-187	01-099-2286	1-63	01-108-4718	1-69	01-122-0989	1-44
01-088-3491	1-89	01-099-2287	1-63	01-108-7746	1-170	01-122-1683	1-28
01-088-4318	1-219	01-099-2288	1-63	01-109-3160	1-177	01-122-2172	1-152
01-088-4319	1-234	01-099-2289	1-63	01-109-5518	1-5	01-122-3686	1-26
01-088-4320	1-215	01-099-2290	1-63		1-6	01-122-4293	1-174
01-089-1240	1-215	01-099-2291	1-63	01-111-5671	1-27	01-122-4471	1-61
01-089-2601	1-7	01-099-2292	1-63	01-111-7770	1-27	01-122-6730	1-203
	1-10	01-099-2692	1-97	01-112-1097	1-107	01-123-2194	1-115
	1-50	01-100-3023	1-63	01-112-3867	1-127	01-123-2904	1-179
01-089-2602	1-10	01-101-0026	1-149	01-112-6239	1-98	01-123-3007	1-7
01-089-2603	1-7	01-101-7143	1-168	01-112-9072	1-150		1-10
	1-10	01-102-8534	1-70	01-112-9073	1-150	01-123-3020	1-127
01-089-3772	1-7	01-102-9973	1-70	01-113-5973	1-98	01-123-3836	1-154
	1-10	01-103-7295	1-154	01-113-7869	1-127	01-123-8675	1-7
	1-50	01-103-7896	1-12	01-114-3884	1-156		1-10
01-089-3773	1-7	01-103-8339	1-103	01-114-4580	1-25	01-124-2755	1-29
	1-10	01-103-8475	1-117	01-114-6672	1-180	01-124-3766	1-153
01-089-3858	1-25	01-103-8804	1-6	01-115-5157	1-138	01-124-3806	1-114
01-089-6502	1-173		1-7	01-115-7371	1-138	01-124-6672	1-41
01-089-7727	1-48	01-103-8882	1-6	01-115-7372	1-138	01-124-8201	1-98
01-089-9834	1-41		1-7	01-115-7437	1-164	01-125-6925	1-31
01-090-5870	1-219	01-104-0611	1-192	01-115-8347	1-123	01-126-0203	1-174
01-090-5872	1-207	01-104-1052	1-4	01-116-1249	1-196	01-126-1292	1-37
01-090-8358	1-137	01-104-1108	1-4	01-116-1528	1-187	01-126-1294	1-37
01-091-4066	1-182	01-104-1197	1-64	01-116-3734	1-154	01-126-1681	1-37
01-092-1692	1-139	01-104-4965	1-6	01-116-3735	1-154	01-126-5160	1-180
01-092-1904	1-152		1-7	01-116-3791	1-183	01-126-9171	1-135
01-092-2154	1-45		1-46	01-116-6688	1-43	01-127-3831	1-39
01-092-3278	1-250	01-104-4966	1-6	01-117-0624	1-7	01-127-5856	1-134
01-092-4155	1-127		1-7	01-117-1026	1-39	01-127-6741	1-29
01-092-5652	1-107		1-46	01-117-3695	1-201	01-127-7210	1-27
01-092-8095	1-156	01-104-6251	1-179	01-117-7490	1-27	01-127-8698	1-98
01-093-1079	1-12	01-105-7341	1-98	01-118-1751	1-139	01-127-9488	1-98
01-093-1551	1-8	01-106-0796	1-156	01-118-1986	1-187	01-128-2506	1-25
01-093-1552	1-7	01-106-2805	1-11	01-119-2159	1-93	01-128-3014	1-185
01-093-7289	1-196	01-106-4054	1-203	01-119-4535	1-98	01-128-4720	1-124
01-093-7447	1-151	01-106-6753	1-12	01-119-7085	1-152	01-128-6152	1-96
01-094-2863	1-8	01-106-6754	1-6	01-119-8104	1-140	01-129-3635	1-157

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
01-129-5146	1-196	01-142-6231	1-63	01-162-6353	1-142	01-184-3881	1-98
01-129-5592	1-151	01-142-7904	1-150	01-163-5201	1-49	01-184-9371	1-191
01-130-1040	1-47	01-143-1406	1-135	01-163-6014	1-96	01-186-1017	1-149
01-130-1276	1-153	01-143-1833	1-166	01-163-7389	1-49	01-188-1754	1-49
01-130-1867	1-146	01-143-3401	1-191	01-164-4064	1-41	01-188-1871	1-26
01-130-2164	1-186	01-143-6748	1-44	01-164-6282	1-49	01-190-0393	1-139
01-130-8756	1-196	01-144-1824	1-25	01-165-1475	1-27	01-190-2744	1-172
01-130-9846	1-7	01-144-3962	1-47	01-165-1476	1-27	01-191-3230	1-36
01-131-0247	1-109	01-144-3964	1-47	01-165-7660	1-49	01-192-1507	1-46
01-131-0249	1-109	01-144-9216	1-126	01-165-8865	1-122	01-192-4393	1-143
01-131-2742	1-188	01-145-4063	1-150	01-166-3719	1-98	01-192-4729	1-149
01-131-3001	1-44	01-145-4658	1-88	01-166-4668	1-169	01-192-4963	1-234
01-131-3008	1-47	01-145-6660	1-184	01-166-9450	1-91	01-192-9670	1-25
01-131-3025	1-47	01-146-6953	1-57	01-167-3404	1-43	01-193-7390	1-173
01-131-5999	1-25	01-146-7063	1-172	01-167-6283	1-98	01-194-0176	1-25
01-131-6720	1-12	01-147-1091	1-108	01-167-6366	1-48	01-196-7440	1-191
01-131-7637	1-49	01-147-1359	1-25	01-167-7765	1-49	01-196-7441	1-191
01-131-9932	1-41	01-147-5634	1-176	01-168-1967	1-25	01-198-2849	1-169
01-132-1139	1-48	01-147-6410	1-27	01-168-2044	1-204	01-198-5595	1-172
01-132-1140	1-48	01-147-8546	1-28	01-168-2795	1-181	01-198-6560	1-28
01-132-1141	1-47	01-147-8568	1-31	01-168-3756	1-182	01-199-0077	1-121
01-133-7940	1-43	01-148-1635	1-19	01-168-4430	1-13	01-199-3121	1-142
01-134-1256	1-192	01-148-2792	1-27	01-168-6218	1-13	01-200-2593	1-172
01-134-7674	1-179	01-149-7838	1-25	01-168-8226	1-11	01-200-2809	1-137
01-134-8784	1-5	01-150-0860	1-179	01-168-8895	1-65	01-200-2816	1-137
	1-6	01-150-3807	1-201	01-169-8436	1-101	01-200-2819	1-137
01-134-8839	1-152	01-150-6504	1-195	01-169-9821	1-167	01-200-2820	1-137
01-135-8775	1-163	01-151-8907	1-203	01-171-4202	1-134	01-200-3186	1-183
01-136-1339	1-160	01-152-7902	1-200	01-171-5932	1-49	01-200-4295	1-137
01-136-7813	1-180	01-154-3868	1-266	01-171-6616	1-46	01-200-8695	1-29
01-137-3327	1-126	01-154-3869	1-266	01-171-7185	1-168	01-201-1228	1-137
01-137-4624	1-28	01-154-3870	1-266	01-172-6706	1-26	01-201-4978	1-269
01-137-7168	1-98	01-156-4835	1-145	01-172-7574	1-115	01-201-4979	1-271
01-137-7169	1-98	01-157-7960	1-147	01-173-1161	1-186	01-201-9479	1-43
01-138-2014	1-123	01-158-1701	1-39	01-173-3730	1-45	01-201-9481	1-42
01-138-7539	1-58	01-158-4071	1-29	01-173-3745	1-49	01-202-0004	1-158
01-139-4296	1-90	01-158-5089	1-1	01-173-4676	1-203	01-202-7014	1-88
01-139-4961	1-13	01-158-8417	1-142	01-173-8665	1-14	01-202-7725	1-47
01-140-0282	1-122	01-159-0832	1-143	01-176-5990	1-12	01-202-8656	1-183
01-140-3195	1-31	01-159-7605	1-197	01-177-0987	1-154	01-203-1007	1-93
01-140-3695	1-50	01-160-1311	1-248	01-178-2154	1-98	01-204-0638	1-201
01-140-4853	1-176	01-160-2398	1-83	01-178-3089	1-185	01-204-8343	1-187
01-140-7520	1-195	01-160-5618	1-118	01-179-6591	1-182	01-206-1077	1-117
01-140-7521	1-195	01-160-5794	1-155	01-180-2194	1-182	01-206-8699	1-43
01-140-9212	1-27	01-160-5795	1-155	01-180-6064	1-157	01-207-0468	1-184
01-140-9950	1-12	01-161-1915	1-251	01-180-6357	1-127	01-207-9947	1-23
01-141-2237	1-44	01-161-4074	1-43	01-180-7251	1-153	01-209-3040	1-43
01-141-5085	1-27	01-161-5113	1-179	01-180-8999	1-49	01-209-3832	1-98
01-142-0456	1-98	01-162-0139	1-155	01-181-8705	1-181	01-209-6498	1-42
01-142-2630	1-109	01-162-4128	1-153	01-181-8792	1-63	01-209-6553	1-63
01-142-2982	1-27	01-162-4371	1-25	01-181-9598	1-164	01-209-7478	1-98
01-142-3595	1-12	01-162-4372	1-25	01-183-4632	1-58	01-210-0319	1-130
01-142-6230	1-63	01-162-4373	1-25	01-183-7007	1-44	01-210-0905	1-90

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
01-210-2739	1-27	01-232-2902	1-26	01-256-3403	1-66	01-288-1952	1-25
01-210-7544	1-47	01-232-4837	1-65	01-256-3616	1-27	01-289-3021	1-231
01-211-8445	1-151	01-232-8410	1-65	01-256-5403	1-182	01-289-4310	1-238
01-212-0183	1-45	01-232-8411	1-65	01-256-7204	1-38	01-290-6494	1-41
01-212-2432	1-238	01-234-1796	1-118	01-257-7788	1-98	01-291-4386	1-66
01-212-5245	1-37	01-234-3281	1-98	01-258-1245	1-118	01-292-2816	1-121
01-212-7595	1-29	01-235-1702	1-49	01-258-5118	1-149	01-293-1959	1-25
01-213-0002	1-134	01-235-7616	1-49	01-258-5125	1-28	01-293-8544	1-28
01-213-9542	1-50	01-237-3208	1-3	01-258-7241	1-149	01-294-4869	1-31
01-214-1520	1-27		1-16	01-259-2498	1-90	01-296-1800	1-203
01-214-1726	1-181	01-237-4056	1-3	01-259-9345	1-43	01-296-6859	1-125
01-214-4268	1-28	01-237-7089	1-3	01-260-6236	1-120	01-297-5986	1-117
01-214-7125	1-169	01-238-0933	1-3	01-261-0212	1-183	01-298-1344	1-126
01-214-8929	1-160	01-238-0934	1-3	01-261-3044	1-114	01-300-3148	1-66
01-215-1455	1-191	01-238-0937	1-3	01-263-3063	1-142	01-300-9401	1-121
01-216-1092	1-133	01-238-8945	1-98	01-263-3116	1-25	01-300-9402	1-121
01-216-3406	1-70	01-239-3653	1-90	01-263-8306	1-43	01-300-9403	1-121
01-216-3743	1-90	01-239-3678	1-27	01-263-8539	1-49	01-300-9416	1-121
01-216-6812	1-27	01-239-7501	1-143	01-264-0017	1-49	01-300-9417	1-121
01-217-9997	1-195	01-241-4373	1-219	01-264-3871	1-109	01-300-9418	1-121
01-218-3469	1-183	01-242-6186	1-171	01-265-3405	1-42	01-301-8013	1-29
01-218-6699	1-27	01-242-9527	1-40	01-265-3993	1-26	01-302-3516	1-25
01-220-5816	1-115	01-242-9975	1-150	01-266-1491	1-203	01-302-3711	1-101
01-220-6648	1-109	01-243-1954	1-119	01-267-0640	1-203	01-302-6043	1-95
01-221-8871	1-140	01-244-4333	1-172	01-267-4280	1-28	01-302-9683	1-117
01-222-4421	1-195	01-244-8379	1-197	01-267-6226	1-94	01-305-4769	1-70
01-223-3692	1-140	01-245-3663	1-140	01-269-4171	1-121	01-306-7827	1-107
01-223-3730	1-201	01-245-8021	1-172	01-269-7319	1-91	01-306-7834	1-9
01-223-7312	1-120	01-245-8024	1-172	01-271-0159	1-27	01-307-2489	1-98
01-224-0351	1-121	01-246-2812	1-192	01-271-0742	1-67	01-308-1483	1-45
01-224-4195	1-120	01-246-5408	1-117	01-271-3754	1-28	01-311-6917	1-120
01-224-4197	1-120	01-246-6113	1-221	01-272-7604	1-28	01-313-4096	1-232
01-224-4198	1-121	01-247-5511	1-114	01-272-8384	1-90	01-313-4097	1-232
01-224-6336	1-118	01-247-9616	1-3	01-272-8385	1-90	01-314-1814	1-215
01-225-5805	1-187	01-247-9618	1-3	01-273-4727	1-109	01-314-4960	1-43
01-225-9712	1-90	01-248-1496	1-29	01-273-7871	1-66	01-314-5580	1-43
01-226-1073	1-118	01-248-8822	1-137	01-274-0807	1-162	01-314-5581	1-43
01-226-8472	1-137	01-249-2563	1-117	01-274-3720	1-66	01-316-1082	1-27
01-227-6034	1-114	01-249-2572	1-118	01-275-0583	1-25	01-316-7423	1-127
01-227-7503	1-115	01-249-2573	1-118	01-275-9740	1-67	01-317-1461	1-113
01-228-0984	1-159	01-250-2970	1-126	01-275-9741	1-67	01-317-2453	1-254
01-228-1028	1-179	01-250-4235	1-204	01-276-5999	1-41	01-317-2805	1-113
01-228-1054	1-139	01-250-4236	1-204	01-278-8257	1-232	01-318-6212	1-195
01-228-4286	1-138	01-250-4237	1-204	01-279-9332	1-214	01-319-0749	1-25
01-228-7622	1-164	01-250-6455	1-136	01-282-6968	1-29	01-320-8223	1-134
01-230-0960	1-175	01-250-8295	1-121	01-283-2409	1-48	01-320-8238	1-87
01-230-6892	1-117	01-251-9403	1-120	01-283-3040	1-138	01-320-8239	1-87
01-230-6894	1-117	01-253-7376	1-203	01-284-7726	1-204	01-322-2123	1-138
01-230-6895	1-117	01-253-9953	1-171	01-286-1841	1-120	01-322-2124	1-138
01-231-7066	1-27	01-254-0191	1-139	01-286-1842	1-118	01-322-5115	1-98
01-231-7168	1-111	01-254-1195	1-201	01-286-1843	1-121	01-322-6409	1-118
01-231-9906	1-111	01-254-4912	1-137	01-286-7226	1-38	01-323-5034	1-180
01-231-9907	1-111	01-255-9276	1-105	01-286-9699	1-185	01-324-8208	1-55

# NIIN Cross Reference Index

<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>	<u>NIIN</u>	<u>Page No.</u>
01-325-6379	1-127	01-348-4491	1-114	01-383-5178	1-185	01-455-2409	1-42
01-327-2021	1-114	01-352-2309	1-25	01-385-7354	1-220	01-457-5621	1-273
01-327-2022	1-114	01-355-0459	1-171	01-386-0784	1-267	01-463-7300	1-51
01-327-2023	1-114	01-355-3245	1-156	01-386-1441	1-2	01-493-4694	1-109
01-327-4148	1-120	01-355-3251	1-156	01-386-5318	1-49	01-500-6964	1-111
01-327-4149	1-120	01-355-5901	1-156	01-386-9355	1-81	01-500-6984	1-111
01-327-4150	1-120	01-355-9202	1-140	01-392-0601	1-193	01-500-6986	1-111
01-329-5024	1-127	01-356-2647	1-156	01-392-8703	1-139	01-500-6989	1-111
01-329-5025	1-127	01-356-6970	1-42	01-398-0674	1-39	01-500-6991	1-111
01-330-9936	1-90	01-358-2530	1-126	01-408-1609	1-186	01-500-6994	1-111
01-331-2824	1-186	01-358-2905	1-122	01-409-0980	1-118	01-500-6999	1-111
01-331-2880	1-137	01-358-2906	1-122	01-417-0133	1-42	01-500-7002	1-111
01-334-2931	1-42	01-361-4042	1-122	01-417-0134	1-42	01-500-7253	1-111
01-334-2932	1-42	01-363-2559	1-253	01-417-0135	1-42	01-500-7256	1-111
01-335-0696	1-221	01-363-2569	1-128	01-417-0136	1-42	01-500-7263	1-111
01-335-1418	1-206	01-363-4159	1-129	01-425-7289	1-168	01-500-7267	1-111
01-335-1419	1-206	01-364-2994	1-118	01-431-9119	1-183	01-500-7270	1-111
01-335-1590	1-210	01-365-3010	1-184	01-432-3144	1-272	01-500-7274	1-111
01-336-7141	1-272	01-365-9308	1-67	01-433-9039	1-25	01-500-7278	1-111
01-337-7289	1-25	01-367-3795	1-239	01-434-5068	1-272	01-500-7286	1-111
01-339-1571	1-94	01-367-3801	1-239	01-435-1754	1-5	01-500-7290	1-111
01-341-4284	1-26	01-367-3878	1-215		1-7	01-500-7291	1-111
01-341-7448	1-199	01-367-4647	1-215	01-435-1756	1-4	01-500-7297	1-111
01-342-3196	1-208	01-367-4650	1-215	01-436-1548	1-213	01-500-7301	1-111
01-345-2629	1-26	01-368-3507	1-217	01-438-7324	1-187	01-500-7304	1-111
01-345-2630	1-26	01-373-6708	1-182	01-442-9990	1-184	01-500-7313	1-111
01-345-3828	1-179	01-375-7243	1-136	01-444-4662	1-253	01-500-7315	1-111
01-345-8917	1-25	01-375-7280	1-25	01-445-8798	1-37	01-500-7319	1-111
01-346-3859	1-45	01-376-1728	1-113	01-448-6600	1-46	01-500-7324	1-111
01-346-5339	1-214	01-377-3155	1-25	01-448-6601	1-47	01-500-7328	1-111
01-346-5340	1-214	01-377-6999	1-26	01-452-8678	1-118	01-500-7332	1-111
01-346-5341	1-214	01-378-4842	1-96	01-454-0088	1-162	01-500-7336	1-111
01-346-7918	1-25	01-378-5888	1-181	01-454-0089	1-162		
01-348-3833	1-25	01-382-2063	1-28				



To assist us in continuing to deliver a quality product, we ask that you provide us with your input.  
We welcome your comments and thank you for your participation.

(Upon completion, tear off the card at the perfs, fold in half, seal with tape and mail.)

## DLIS QUALITY FEEDBACK CARD

1. How does your unit use the ASG? Please check all that apply.

- At sea                       Maintenance  
 In port                       Below deck  
 Shipyards                   Other (Explain)\_\_\_\_\_

2. Why do you find the ASG to be a valuable resource? Please be specific.

\_\_\_\_\_

3. What other DLA products do you currently use?

- FEDLOG                       DESX  
 WebFLIS                       Map Catalog  
 LOLA/LOGRUN               Other (Explain)\_\_\_\_\_

4. In which of the following formats do you use the ASG?

- CD-ROM  
 Hard Copy  
 Website

5. Would you prefer to receive the ASG in the current 3-volume set, or in a 3-ring binder with change pages?

- 3-volume set of books  
 3-ring binder

6. Do you think appropriate Federal Supply Class's (FSCs) are presented in the ASG?

- Yes  
 No

7. If you answered no, please list the FSC's you would like included.

\_\_\_\_\_

8. Additional Comments:\_\_\_\_\_

\_\_\_\_\_

**Please indicate branch of service.**

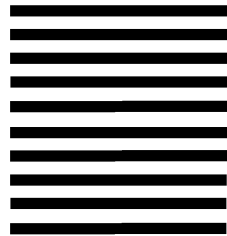
- Army                               DoD  
 Air Force                         Marines  
 Coast Guard                     Navy  
 Civilian                          Other

**FOR ASSISTANCE CONTACT:**

**Diane Barnes**  
Commercial: 269-961-5476 or DSN: 661-5476  
**Tom Miller**  
Commercial: 269-4209 or DSN 661-4209



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**BUSINESS REPLY MAIL**  
FIRST-CLASS MAIL PERMIT NO 1267 BATTLE CREEK MI

POSTAGE WILL BE PAID BY ADDRESSEE

**DLIS-VPH**

DEFENSE LOGISTICS INFORMATION SERVICE  
74 WASHINGTON AVE N STE 7  
BATTLE CREEK MI 49017-9915



----  
Fold Here

----  
Fold Here





---

Produced by:  
DLIS

ELECTRONIC DOCUMENTS/PRODUCTS BRANCH  
DEFENSE LOGISTICS INFORMATION SERVICE  
74 WASHINGTON AVENUE NORTH, SUITE 7  
BATTLE CREEK MI 49017-3084

Telephone  
Toll Free: 1-877-DLA-CALL (352-2255)  
DSN: 661-7766  
Commercial: 1-269-961-7766

FAX  
DSN 661-5305  
Commercial: 1-269-961-5305  
E-mail: [dli-support@000d.la.mil](mailto:dli-support@000d.la.mil)