

# TM 55-1925-273-10-2

This manual supersedes TM 55-1925-207-10-2, dated 16 August 1991

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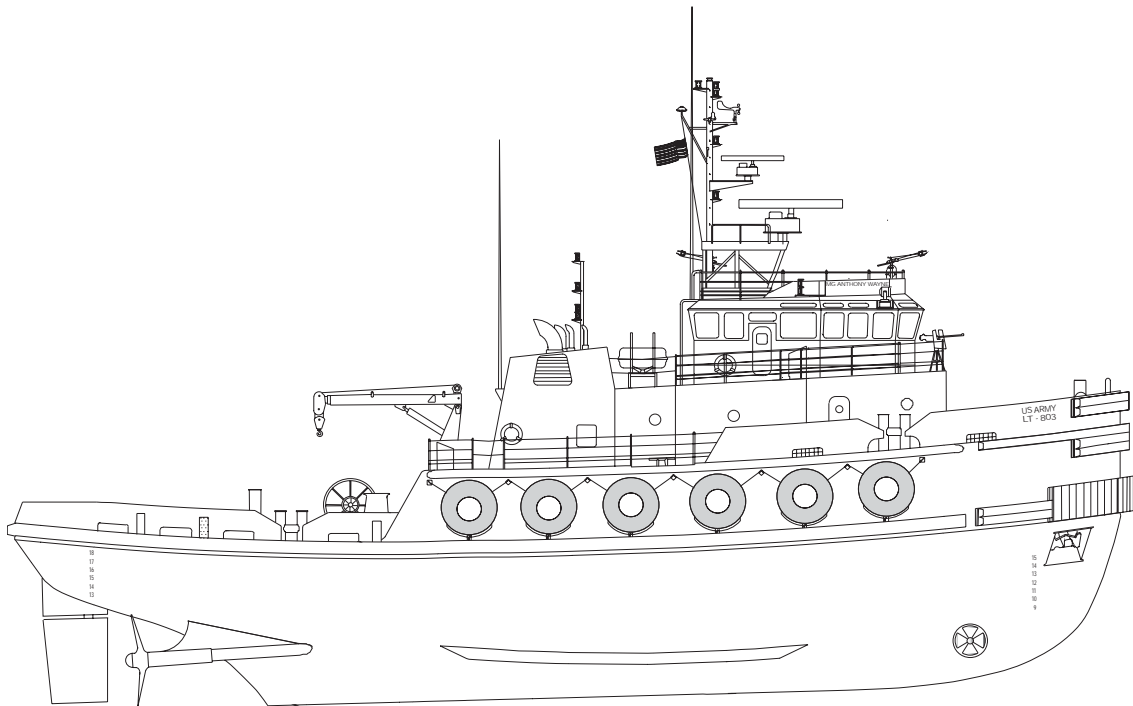
## TECHNICAL MANUAL

### OPERATOR'S MANUAL

### FOR

### INLAND AND COASTAL LARGE TUG (LT)

### NSN 1925-01-509-7013 (EIC XAG)



DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**30 NOVEMBER 2005**



## WARNING SUMMARY

### FIRST AID

Although the 128' Large Tug is normally assigned a medic, first aid is still an important skill for all crewmembers. The ability to promptly administer first aid to another crewmember could mean the difference between life and death for that crewmember. First aid procedures for soldiers are contained in FM 4-25.11.

### WARNING SUMMARY CONTENT

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation and maintenance of this vessel and its equipment. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and of hazardous materials used within the technical manual.

### CHLORINE AND BROMINE STORAGE AND HANDLING



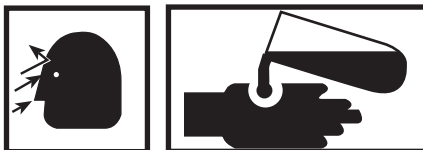
Chlorine and the Water Demineralizer Cartridge (NSN 4610-01-022-9970) which contains the chemical Bromine may not be stored together. Both chemicals, Chlorine and Bromine, must follow the Federal HAZCOM standard (29 CFR 1910.1200) along with the Material Safety Data Sheet (MSDS) for each chemical. Failure to comply could result in injury or death.

### GALLEY NOISE HAZARD



All crewmembers working in the galley area must wear Army Hearing Protection Devices (HPDs) and ensure that the galley doors remain closed. Failure to comply could result in injury.

### GAYLORD VENTILATION AND FIRE SUPPRESSION SYSTEM



In the event that the Gaylord Ventilation and Fire Suppression system is activated and exposure to the fire suppressant occurs, all personnel exposed should immediately wash out the eyes and shower to remove residual material. Failure to comply could result in injury or death.

**MACHINE GUN NOISE HAZARD**



During M2 caliber 0.50 weapons firing, all personnel standing outside on deck must wear Army Hearing Protection Devices (HPDs). Failure to comply with this warning could result in serious injury.

**RADIATION, RADIO ANTENNAS**



Inspecting antennas with the INSA, radars, transceivers and receiver-transmitters turned on presents a radiation hazard. Ensure all transceivers and receiver-transmitters are turned off prior to inspecting antennas. Ensure that the appropriate circuit breaker has been secured, locked out, and tagged out (see WP 0008) in accordance with FM 55-502. Failure to comply could result in injury or death.

**SAFETY HARNESS**

Ensure that a safety harness is worn when inspecting antennas. Failure to comply could result in injury or death.

**SEWAGE**

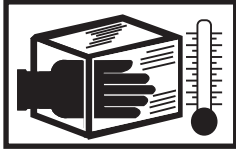


Toxic and flammable vapors are generated in the sewage system. Provide ventilation from outside source. Avoid open flames and prolonged breathing of fumes. Failure to comply could result in injury or death.

EXPLANATION OF SAFETY WARNING ICONS



**CHEMICAL** - drops of liquid on hand show that the material will cause burns or irritation to human skin or tissue.



**CRYOGENIC** - hand in block of ice shows that the material is extremely cold and can injure human skin or tissue.



**DROWNING** - a figure drowning in water indicates that the danger of by death by drowning exists.



**EAR PROTECTION** - headphones over ears show that noise level will harm ears.



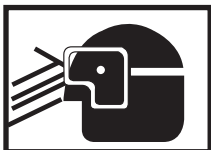
**ELECTRICAL** - electrical wire to arm with electricity symbol running through human body shows that shock hazard is present.



**ELECTRICAL** - electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.



**EXPLOSION** - rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition, or high pressure.



**EYE PROTECTION** - person with goggles shows that the material will injure the eyes.



**FIRE** - flame shows that a material may ignite and cause burns.

EXPLANATION OF SAFETY WARNING ICONS (CONTINUED)



**FALLING PARTS** - arrow bouncing off human shoulder and head shows that falling parts present a danger to life or limb.



**FLYING PARTICLES** - arrows bouncing off of face show that particles flying through the air will harm face.



**FLYING PARTICLES** - arrows bouncing off face with face shield show that particles flying through the air will harm face.



**HEAVY OBJECT** - human figure stooping over heavy object shows physical injury potential from improper lifting technique.



**HEAVY PARTS** - hand with heavy object on top shows that heavy parts can crush and harm.



**HEAVY PARTS** - foot with heavy object on top shows that heavy parts can crush and harm.



**HEAVY PARTS** - heavy object on human figure shows that heavy parts present a danger to life or limb.



**HEAVY PARTS** - heavy object pinning human figure against wall shows that heavy, moving parts present a danger to life or limb.



**HELMET PROTECTION** - arrow bouncing off head with helmet shows that falling parts present a danger.

EXPLANATION OF SAFETY WARNING ICONS (CONTINUED)



**HOT AREA** - hand over object radiating heat shows that part is hot and can burn.



**MOVING PARTS** - human figure with an arm caught between gears shows that the moving parts of the equipment present a danger to life or limb.



**MOVING PARTS** - hand with fingers caught between gears shows that the moving parts of the equipment present a danger to life or limb.



**MOVING PARTS** - hand with fingers caught between rollers shows that the moving parts of the equipment present a danger to life or limb.



**RADIO TRANSMISSION WARNING** - Radiating lines from a radio antenna indicate the danger of radiation and electric shock hazards are present.



**SHARP OBJECT** - pointed object in hand shows that a sharp object presents a danger to limb.



**SHARP OBJECT** - pointed object in hand shows that a sharp object presents a danger to limb.



**SHARP OBJECT** - pointed object in foot shows that a sharp object presents a danger to limb.



**SLICK FLOOR** - wavy line on floor with legs prone shows that slick floor presents a danger for falling.



**VAPOR** - human figure in a cloud shows that material vapors present a danger to life or health.





LIST OF EFFECTIVE PAGES/WORK PACKAGES

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Original 30 NOVEMBER 2005

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HEADQUARTERS,  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 30 NOVEMBER 2005

TECHNICAL MANUAL

OPERATOR'S MANUAL

FOR

INLAND AND COASTAL LARGE TUG (LT)  
NSN 1925-01-509-7013 (EIC XAG)

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Equipment Technical Publications) through the Internet on the Army Electronic Product Support (AEPS) Web site. The Internet address is <https://aeps.ria.army.mil>. The DA Form 2028 is located under the Public Applications section on the AEPS public home page. Fill out the form and click on SUBMIT. Using this form on the AEPS site will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax, or e-mail your letter or DA Form 2028 directly to: AMSTA-LC-LPIT / TECH PUBS, TACOM-RI, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The e-mail address is TACOM-TECH-PUBS@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

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This manual supersedes TM 55-1925-207-10-2, dated 16 August 1991

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## HOW TO USE THIS MANUAL

### USING THIS MANUAL

When using this manual, read and understand the entire maintenance action before performing the task. Also, read and understand all warnings, cautions, and notes as well as general safety precautions that apply to the task to be performed. The warning summary will inform personnel of hazards associated with the equipment to be worked on. However, the summary is not all inclusive and personnel should be aware at all times of hazardous conditions that may arise.

### ACCESSING INFORMATION

Information is accessed by referring to the table of contents, located in the front of this manual, or by looking in the alphabetical index, located in the back of this manual.

To locate information using the table of contents, first scan the chapter titles to determine the general area in which your information will be contained. After locating the proper chapter, look beneath the chapter title to find the desired informational or procedural work package title. To the right of the work package title is a work package sequence number. This work package sequence number will direct you to the proper work package. Work packages are arranged in numerical order in this manual.

To locate information using the alphabetical index, look down the subject column on the left side of the page until you find the desired subject. To the right of the subject is the work package sequence number and page number. Go to the indicated work package and indicated page number to find the desired information.

### INITIAL SETUP

Initial setup requirements are located directly above many of the procedures in this manual. The information is given to ensure all materials, expendables, tools and any other equipment necessary are readily available for use. The initial setup will be accomplished prior to starting the actual steps of each maintenance procedure. There are five basic headings listed under the initial setup:

**Tools and Special Tools:** This section lists all tools (standard or special) required to perform the task. Tools are identified with an item number and work package number from table 2 of the Maintenance Allocation Chart (MAC).

**Materials/Parts:** This section lists all of the materials and parts required to perform the task. If the material or part is needed each time to work package is used, then it is listed here. If the part is optional, replaced on a conditional basis, or is only needed for certain specific procedures within the work package it is not listed.

**Personnel Required:** This section lists all personnel necessary to perform the task. When a specific MOS or other personnel qualification is required, this MOS or additional requirement is also indicated.

**Equipment Conditions:** This section notes the conditions that must exist before starting the task. The equipment condition will also include any prerequisite maintenance tasks to be performed with reference to the work package number or to the TM number that contains the required maintenance task.

**References:** This section lists any other publications necessary to complete the task. When there are no references listed, all steps necessary to complete the task are contained within this manual. A listing of reference materials is contained in the Supporting Information chapter at the rear of this manual.

### ILLUSTRATIONS

Various visual methods are used to locate and repair components. Locator illustrations in Controls and Indicator tables, Preventive Maintenance Checks and Services (PMCS) tables, exploded views, and cut-away diagrams make the information in the manual easier to understand and follow.

## **LOCATING MAJOR COMPONENTS**

This work package gives a brief description of the major components, and provides illustrations showing the location of the components. Knowing the major components of the system is the first step to understanding system operation and maintenance.

## **THEORY OF OPERATION**

This work package contains the theory of operation for the system. Theory of operation is provided to familiarize the user system operating principles. Once the operating principles are understood, the user is better equipped to operate, troubleshoot, and maintain the system.

## **DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS**

This work package describes all of the operator controls and indicators contained in the system. Use of the operator controls and indicators is also described. Turn to the figure that shows the desired control or indicator. Note the key number corresponding to the control or indicator. Refer to the table below the illustration and find the desired key number in the column on the far left hand side. The center column contains the name of the control or indicator and the right hand column briefly describes the control or indicator's function.

## **OPERATOR INSTRUCTIONS**

Work packages are included in this manual to describe operation under usual conditions as well as operation under unusual conditions. Prior to performing any operating procedure, perform the initial setup by obtaining the expendables, tools, materials and other items listed prior to starting the task. Always perform the listed steps in the listed order.

## **TROUBLESHOOTING PROCEDURES**

A troubleshooting index work package is contained in this manual to permit easy location of troubleshooting procedures. Full directions for using the troubleshooting index and the accompanying troubleshooting procedures are contained in the troubleshooting index work packages. The troubleshooting procedure work package(s) immediately follow the troubleshooting index.

## **ALPHABETICAL INDEX**

The Alphabetical Index, located in the back of this manual, contains an alphabetical list of all sections of this manual. For example, Location and Description of Major Components is found in section L. The work package sequence number is found on the right side of the title where the Location and Description of Major Components is located. Turn to the work package indicated to find the description and location of each component.





## **Chapter 4**

# **Operator Instructions-- Operation Under Unusual Conditions for Inland and Coastal Large Tug (LT)**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
FM-200 FIRE SUPPRESSION SYSTEM**

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**INITIAL SETUP:****Personnel Required:**

One Crewmember, Any MOS

**References:**

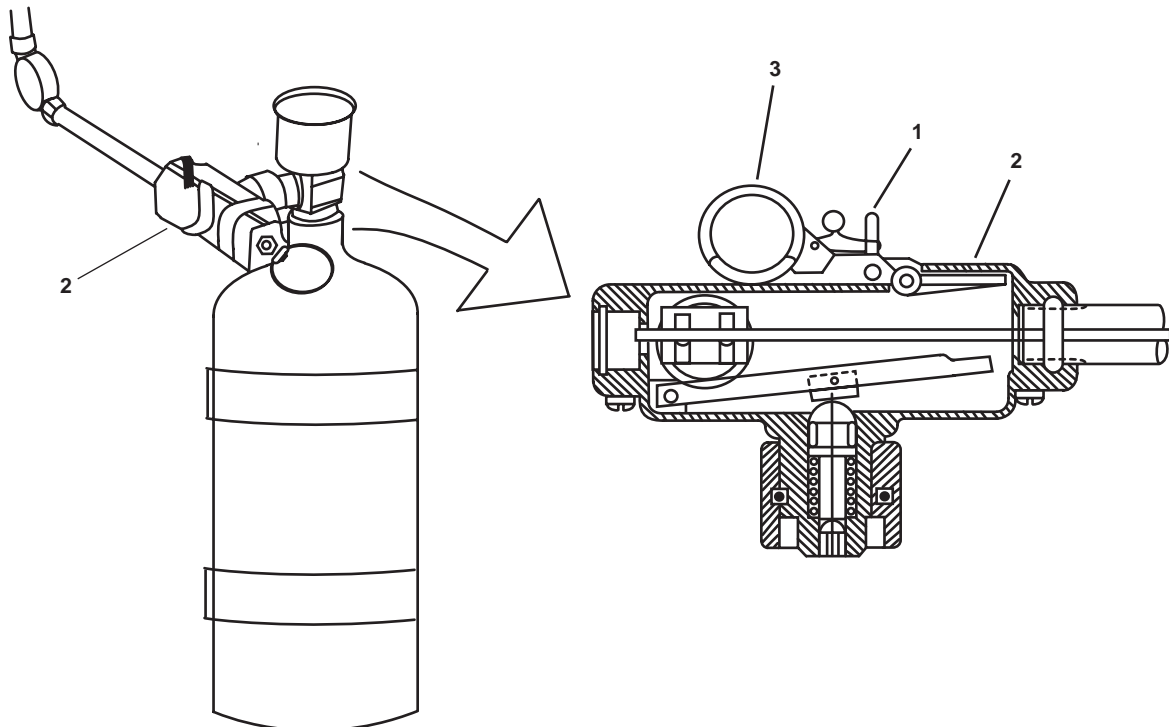
WP 0085 00 (volume 1)

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**FM-200 LOCAL ACTUATION****NOTE**

Perform this procedure only in extreme emergency. If the situation is not extreme, actuate the FM-200 fire suppression system from the main deck.

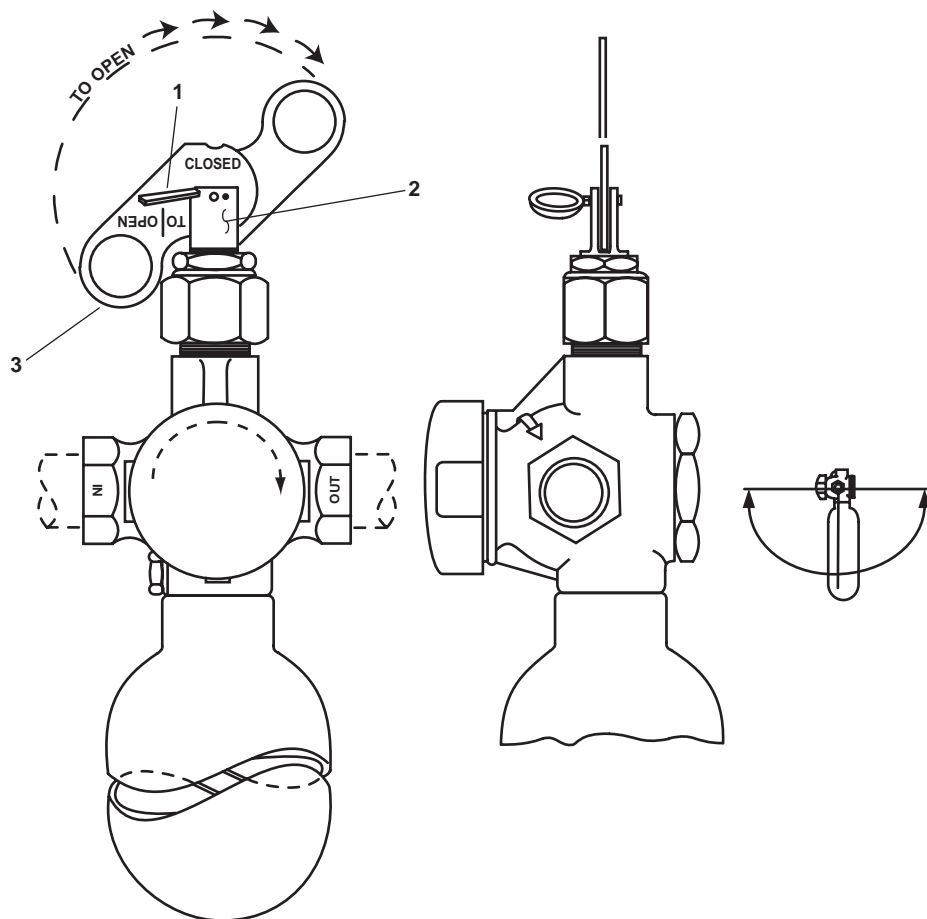
1. Perform the FM-200 Fire Suppression System Actuation procedure (WP 0085 00, volume 1).
2. Remove the locking pin (figure 1, item 1) and OPEN the CO<sub>2</sub> discharge valve (figure 1, item 2) by pulling the handle (figure 1, item 3) and rotating it clockwise 180°.
3. Wait 15 minutes and then begin reentry procedures (WP 0085 00, volume 1).



**Figure 1. CO<sub>2</sub> Discharge Valve**

**BYPASS FM-200 DISCHARGE DELAY**

1. Remove the locking pin (figure 2, item 1) on the discharge delay valve (figure 2, item 2).
2. OPEN the discharge delay valve (figure 2, item 2) by rotating the handle (figure 2, item 3) to the OPEN position.
3. The FM-200 system will now discharge without the 60-second delay.

**Figure 2. FM-200 Discharge Valve****END OF WORK PACKAGE**

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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
FIRE DAMPER OPERATION**

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**INITIAL SETUP:****Personnel Required:**

One Crewmember, Any MOS

**References:**

TM 55-1925-273-SDC

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**VENTILATION DAMPER OPERATION**

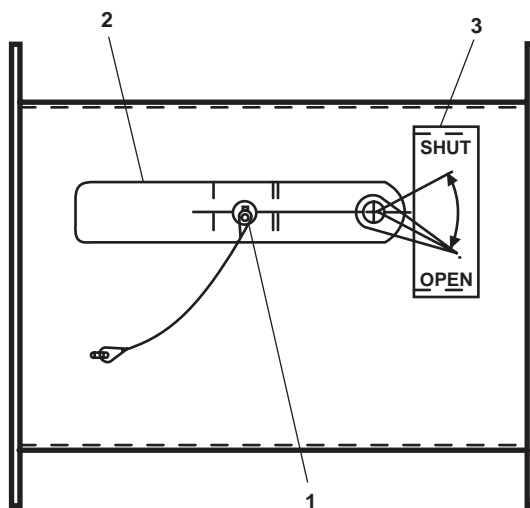
Dampers are located in the ventilation ductwork throughout the vessel. They serve to balance the amount of air provided to various compartments. In the event of a fire, the dampers are CLOSED to prevent "fanning" the fire. The following procedure provides instructions for closing and opening dampers.

**SYSTEM OPERATION****CLOSE DAMPER**

1. Remove the locking pin (figure 1, item 1).
2. Move the damper lever (figure 1, item 2) in the SHUT direction as indicated on the lever guide (figure 1, item 3).
3. Install the locking pin (figure 1, item 1).

**OPEN DAMPER**

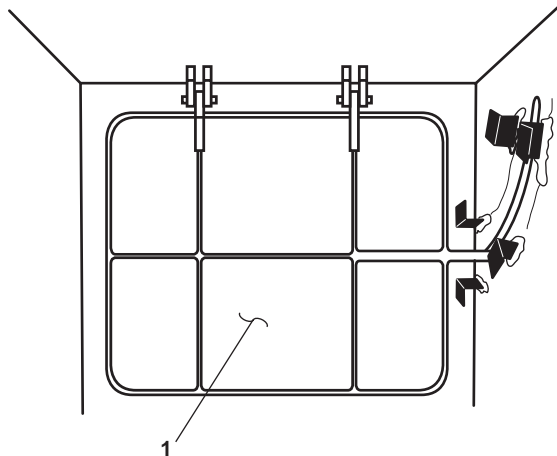
1. Remove the locking pin (figure 1, item 1).
2. Move the damper lever (figure 1, item 2) in the OPEN direction indicated on lever guide (figure 1, item 3).
3. Install the locking pin (figure 1, item 1).



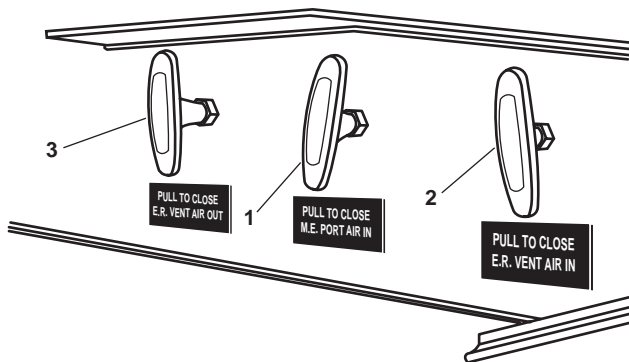
**Figure 1. Fire Damper Operation**

**FIRE FLAP ASSEMBLIES**

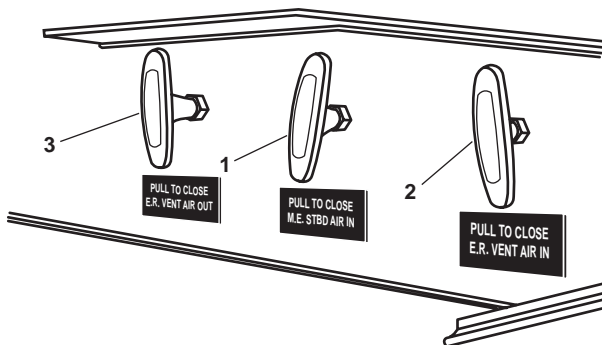
The LT is outfitted with a main engine combustion air fire flap assembly (figure 2, item 1). This arrangement upgrades the previous blanking plate arrangement that was used to secure the main engine intake if a catastrophic casualty required shutdown of a main engine. The main engine combustion air fire flap assemblies are rectangular in shape, and their quick release T handles (figures 3 and 4, item 1) are located at the front of the stacks on the 02 level. Access to the main engine combustion air fire flap assembly is gained by entering the manhole cover on the stacks at the 01 level.



**Figure 2. Main Engine Combustion Air Fire Flap Assembly**



**Figure 3. Port Engine Room Fire Flap Quick Release T Handles**



**Figure 4. Starboard Engine Room Fire Flap Quick Release T Handles**

The LT is outfitted with an engine room ventilation supply fire flap assembly (figure 5, item 1). The engine room ventilation supply fire flap assemblies are of the louver type, and their quick release T handles (figures 3 and 4, item 2) are located at the front of the stacks on the O2 level. Access to the engine room ventilation supply fire flap assembly is gained by entering the watertight hatch on the stack at the O1 level. Additionally, the LT is outfitted with an engine room ventilation exhaust fire flap assembly (figure 6, item 1). The engine room ventilation exhaust fire flap assemblies are circular in shape and their quick release T handles (figures 3 and 4, item 3) are located at the front of the stacks on the O2 level. Access to the engine room ventilation exhaust fire flap assembly is gained by entering the watertight hatch on the stack at the O2 level and entering the manhole cover inside the stack.

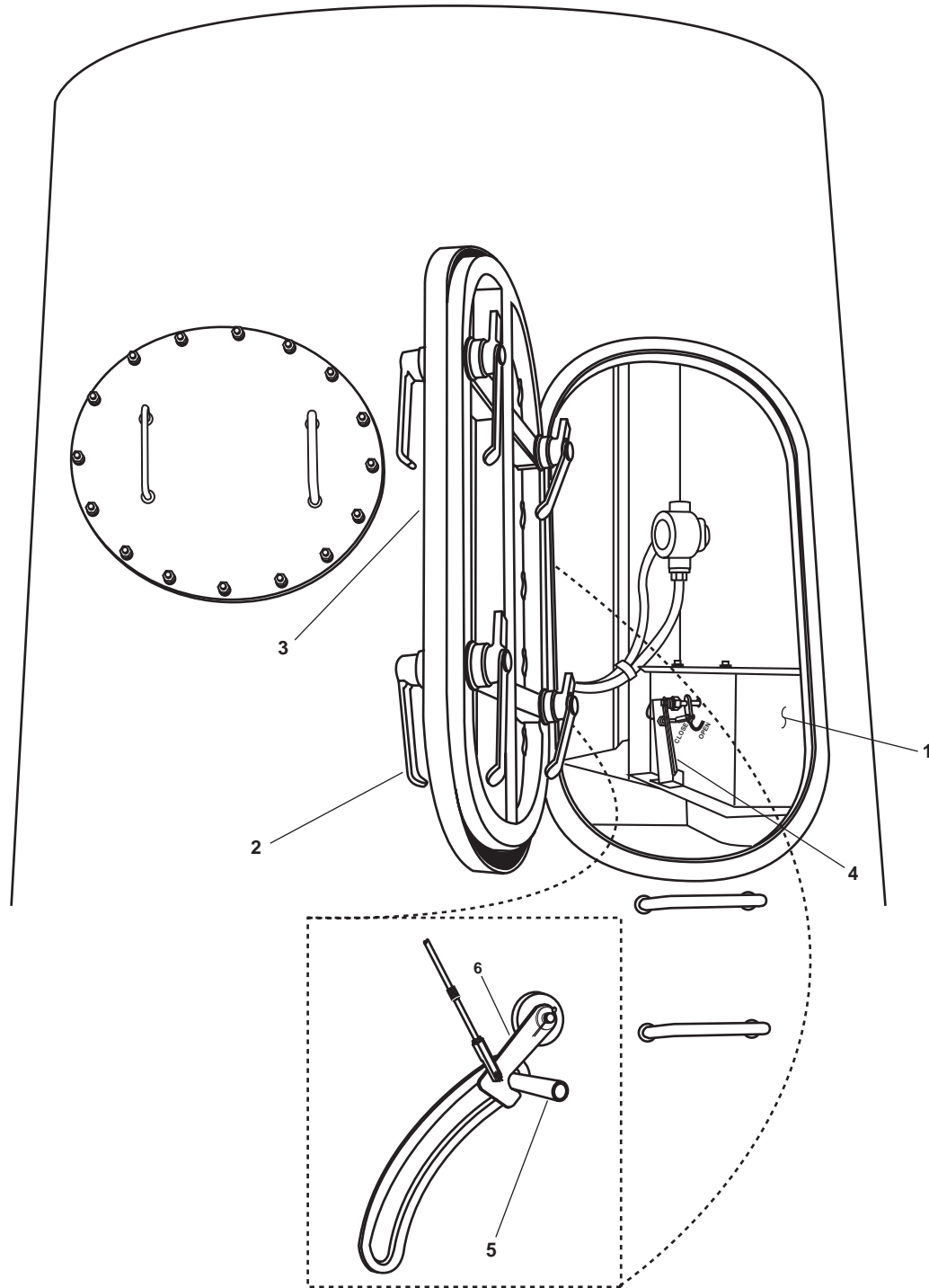
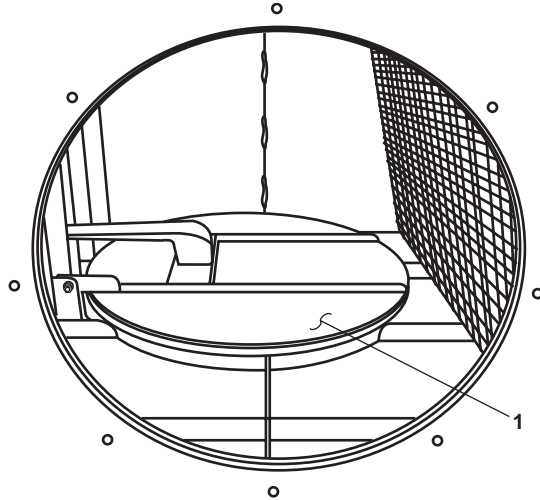
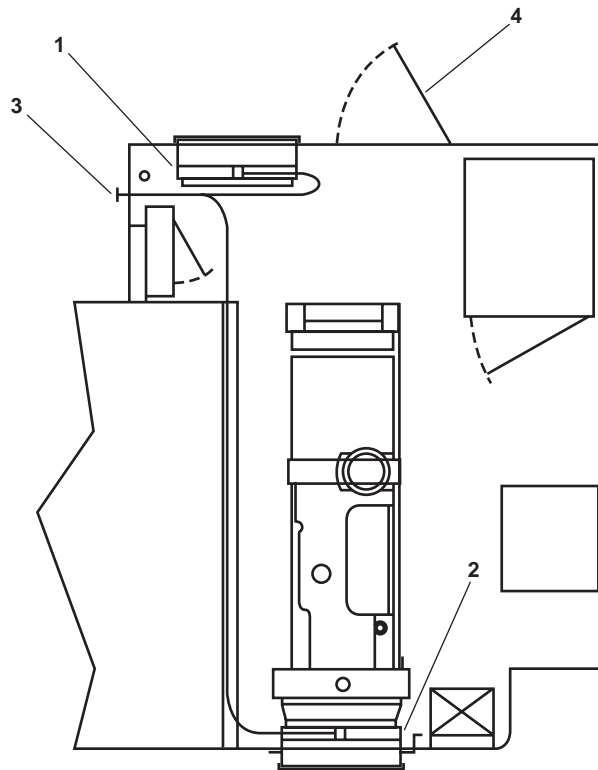


Figure 5. Engine Room Ventilation Fire Flap Assembly



**Figure 6. Engine Room Ventilation Exhaust Fire Flap Assembly**

In addition to the main engine combustion air fire flap assembly and the engine room ventilation supply and exhaust fire flap assemblies, the LT is also outfitted with Emergency Diesel Generator (EDG) room fire flap assemblies. These assemblies are located on the inboard (figure 7, item 1) and outboard (figure 7, item 2) ventilation louvers. The EDG room fire flap assemblies are actuated by pulling T handles (figure 7, item 3) located on the aft bulkhead of the EDG room, inboard.



**Figure 7. EDG Room Fire Flap Assemblies**



**CLOSE ENGINE ROOM VENTILATION AND MAIN ENGINE COMBUSTION AIR FIRE FLAPS****NOTE**

If propulsion is required, do not CLOSE the main engine combustion air fire flap assemblies.

1. Pull the T handles (figures 3 and 4 items 1, 2, and 3) to their fully extended position. This CLOSES the main engine combustion air fire flap assembly (figure 2, item 1), the engine room ventilation exhaust fire flap assembly (figure 6, item 1) and CLOSES the engine room ventilation supply fire flap assembly lovers (figure 5, item 1).
2. Repeat step 1 on the opposite stack for the remaining fire flaps.

**OPEN ENGINE ROOM VENTILATION AND MAIN ENGINE COMBUSTION AIR FIRE FLAPS****ENGINE ROOM EXHAUST FIRE FLAP ASSEMBLY**

1. Gain access to the inside of the stack on the 02 level by loosening the four dogs (figure 8, item 1) and opening the watertight hatch (figure 8, item 2).
2. Remove the eight bolts (figure 8, item 3) and eight flat washers (figure 8, item 4) from the manhole cover (figure 8, item 5).
3. Remove the manhole cover (figure 8, item 5) from the engine room exhaust fire flap assembly housing (figure 8, item 6).
4. Remove the gasket (figure 8, item 7) from the manhole cover (figure 8, item 5). Inspect the gasket for damage. Discard the gasket if damaged, retain if intact.
5. Push the quick release T handle (figure 8, item 8) all the way in.
6. Have one crewmember push the engine room exhaust fire flap handle (figure 8, item 9) down, raising the engine room exhaust fire flap (figure 8, item 10) up, while a second crewmember secures it in the OPEN position with the quick release latch (figure 8, item 11).
7. Install a new gasket (figure 8, item 7) on the engine room exhaust fire flap assembly housing (figure 8, item 6).
8. Install the manhole cover (figure 8, item 5) and secure it with the eight flat washers (figure 8, item 4) and the eight bolts (figure 8, item 3).
9. CLOSE the watertight hatch (figure 8, item 2) and tighten the dogs (figure 8, item 1).
10. Perform steps 1-9 for the engine room exhaust fire flap assembly on the opposite stack.

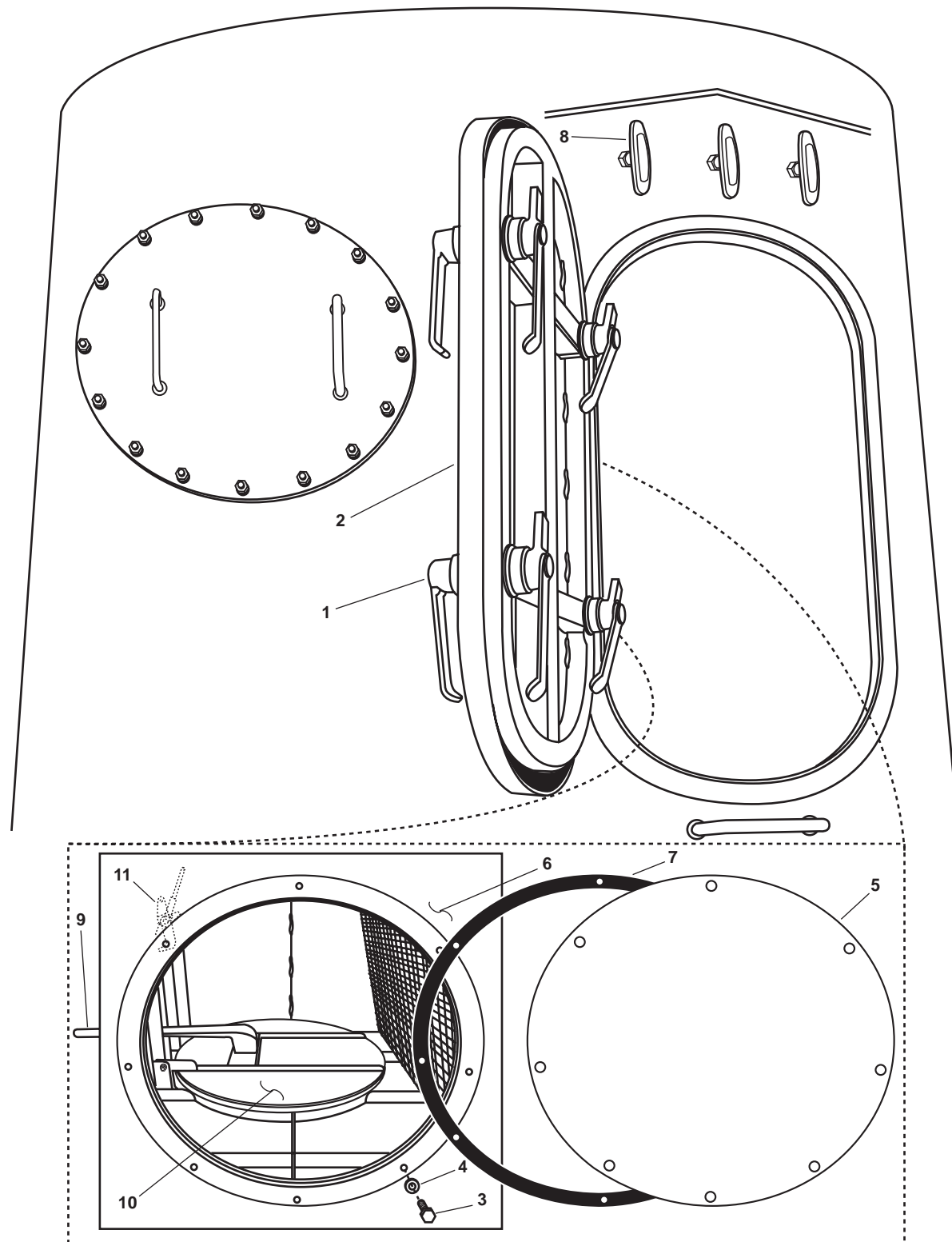


Figure 8. Access to Engine Room Ventilation Exhaust Assembly Fire Flap

**ENGINE ROOM VENTILATION SUPPLY FIRE FLAP ASSEMBLY**

1. Gain access to the inside of the stack on the 01 level by loosening the four dogs (figure 5, item 2) and opening the watertight hatch (figure 5, item 3).
2. Have one crewmember push the quick release T handle (figures 3 and 4, item 2) all the way in while a second crewmember moves the engine room ventilation supply fire flap assembly handle (figure 5, item 4) to the OPEN position.
3. Close the watertight hatch (figure 5, item 3) and tighten the dogs (figure 5, item 2).
4. Perform steps 1-3 for the engine room ventilation supply fire flap assembly in the opposite stack.

**MAIN ENGINE COMBUSTION AIR FIRE FLAP ASSEMBLY**

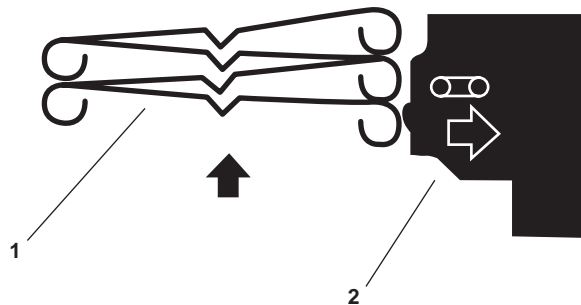
1. Gain access to the inside of the stack on the 01 level by loosening the four dogs (figure 5, item 2) and opening the watertight hatch (figure 5, item 3).
2. Have one crewmember push the quick release T handle (figures 3 and 4, item 1) all the way in while a second crewmember lifts up on the main engine combustion air fire flap assembly handle (figure 5, item 5) and secures it in the OPEN position with the quick release latch (figure 5, item 6).
3. CLOSE the watertight hatch (figure 5, item 3) and tighten the dogs (figure 5, item 2).
4. Perform steps 1-3 for the engine room ventilation supply fire flap assembly in the opposite stack.

**CLOSE EDG ROOM FIRE FLAP ASSEMBLIES**

1. Ensure that all personnel are clear of the EDG room.
2. Secure the watertight door (figure 7, item 4) to the EDG room.
3. Pull OUT on both T handles (figure 7, item 3) to deploy the EDG room fire flaps (figure 7, items 1 and 2).
4. Notify the pilothouse of the fire condition.

**OPEN EDG ROOM FIRE FLAP ASSEMBLIES**

1. Ensure that the fire is out and that the proper command authority has authorized entry into the space.
2. After the space has been ventilated, and appropriate damage control measures have been completed (TM 55-1925-273-SDC), the EDG room fire flaps (figure 7, items 1 and 2) may be reset.
3. Reset the EDG room fire flaps (figure 7, items 1 and 2) by pulling UP from the bottom. The sections (figure 9, item 1) of the EDG room fire flap should fold up like a fan as they are raised. Once the EDG room fire flaps are fully raised, the latch assembly (figure 9, item 2) will automatically latch them into place.



**Figure 9. Opening the EDG Room Fire Flaps**

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
ENGINE ROOM WATER WASHDOWN SYSTEM**

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**INITIAL SETUP:****Personnel Required:**

One Crewmember, Any MOS

**References:**

WP 0109 00 (volume 1)

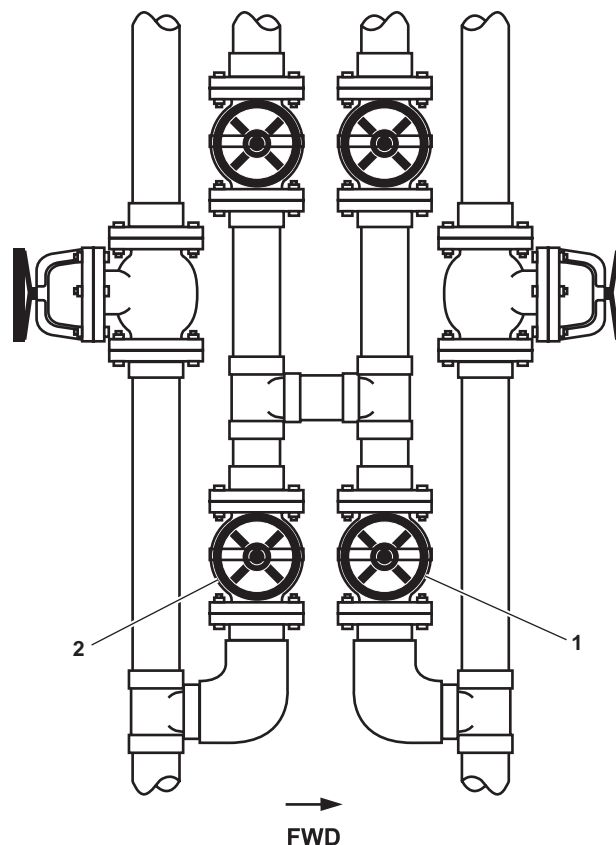
**ACTIVATION PROCEDURES**

1. Evacuate all personnel from the engine room and AMS 1.
2. CLOSE the watertight doors between the engine room, AMS 1, and AMS 2.
3. Align fire and general service pump 1 as the online fire pump (WP 0109 00, volume 1).

**▲ CAUTION**

FM-17 and/or FM-15 supplies raw water to various shipboard systems including the refrigeration plant, the air conditioning plant, and the water maker. Failure to secure power to these systems prior to closing the valves will cause damage to the equipment.

4. CLOSE the following valves:
  - a. FM-17, FIRE/G.S. PMP NO. 1 DISCH TO GS (figure 1, item 1)



**Figure 1. Fire and General Service Pump Valves**

- b. FM-15, FIRE/G.S. PMP. No. 2 DISCH. TO GS. (figure 1, item 2)
5. OPEN WWS-1 (figure 2, item 1), located in the main deck vestibule, starboard side, to activate the Engine Room Water Washdown System (ERWWS).
6. Operate the ERWWS for a minimum of 15 minutes.
7. While the ERWWS is operating, OPEN the ERWWS strainer blow off valve (figure 1, item 2) approximately every three minutes for a period of 10 seconds. This will allow any foreign matter to flush from the inline strainer basket.
8. Secure the ERWWS by CLOSING valve WWS-1 (figure 1, item 1).
9. Maintain operation of fire and general service pump 1 as required by current onboard conditions.

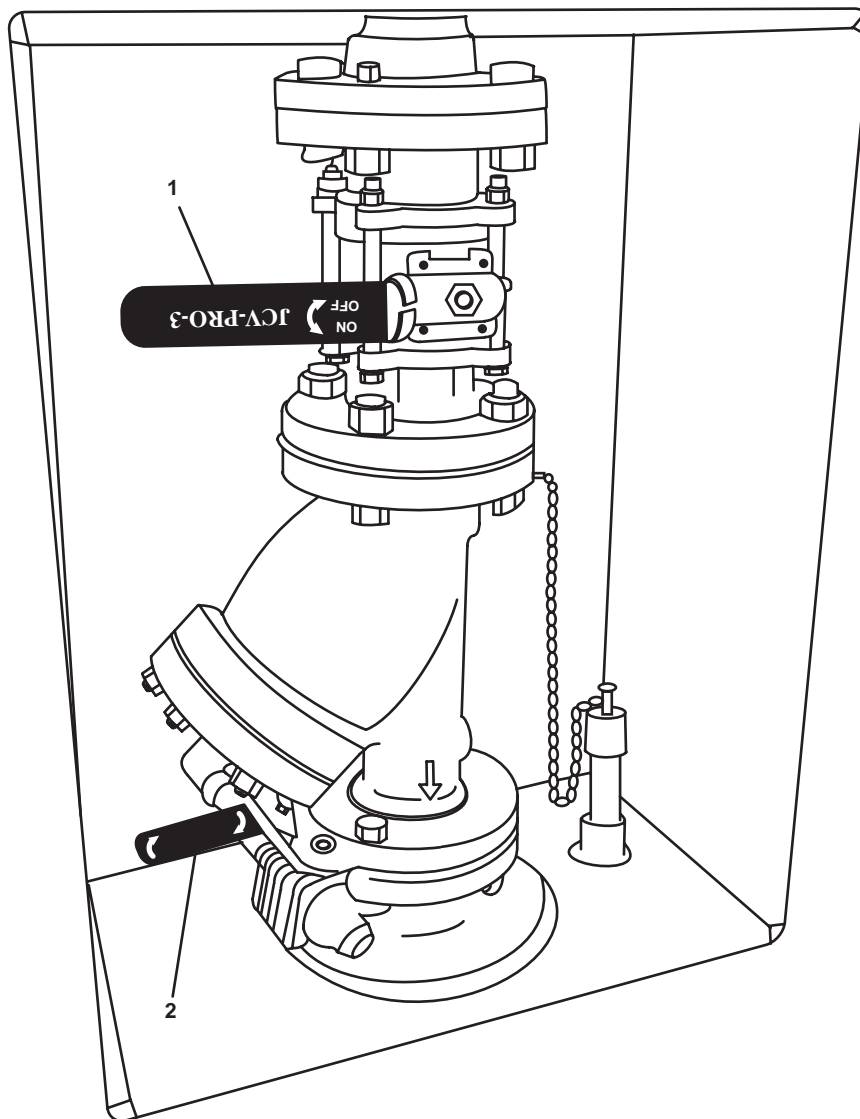


Figure 2. WWS Control Station

END OF WORK PACKAGE

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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
PORTABLE FIRE EXTINGUISHER OPERATION**

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**INITIAL SETUP:****Personnel Required:**

One Crewmember, Any MOS

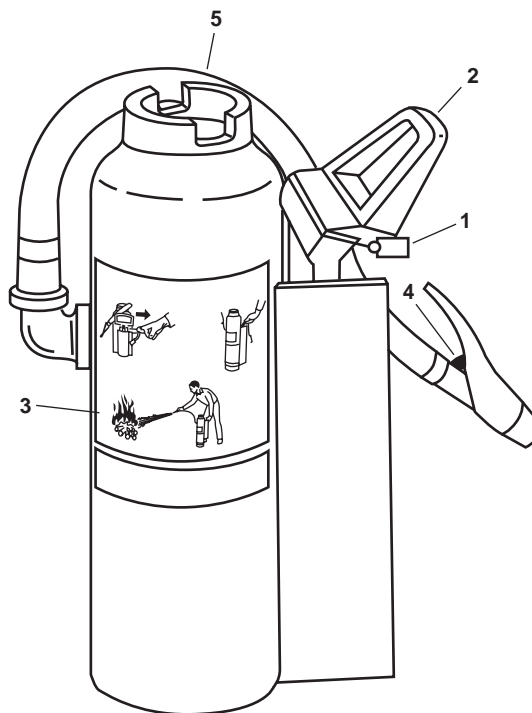
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**PORTABLE DRY CHEMICAL EXTINGUISHER**

The effective range of the extinguisher is from 13 to 22 feet (4 to 6.7 meters). Dry chemical is capable of covering large areas, but the residue left behind is difficult to remove. When combating a fire, a quick squeeze on the nozzle grip will give some assurance that the chemical is not caked and will knock down some of the smoke. If no chemical is expelled, quickly turn the extinguisher upside down, and strike the top against a solid surface. This will un-cake the powder. The dry chemical fire extinguisher should not be laid sideways when in use, because this will allow the gas propellant to be released without releasing any dry chemical. If two portable extinguishers are expended, and little or no progress is made in extinguishing the fire, use low velocity fog. Low velocity fog is superior to dry chemical in putting out all major fires, but using fog on a class C fire may present a shock hazard.

The following is a basic procedure for using a portable extinguisher:

1. The discoverer reports the fire, and the alarm is sounded.
2. Carry the extinguisher to the scene of the fire.
3. While in route to the fire, pull the locking pin (figure 1, item 1), and push down on the handle (figure 1, item 2) to charge the extinguisher.



**Figure 1. Portable Dry Chemical Extinguisher**

- 
4. If possible, approach the fire from the windward side. Hold the cylinder (figure 1, item 3) in one hand, and the nozzle (figure 1, item 4) in the other.
  5. Squeeze the grip on the nozzle firmly (figure 1, item 4) and direct the dry chemical at the base of the fire in a wide sweeping side-to-side motion. The extinguisher has a range of about 13 to 22 feet (4 to 6.7 meters).
  6. Extinguish all of the flames in your area before moving in further. If the fire appears to be too large, or if there is a possibility of being surrounded by flames, wait for assistance before going any further.
  7. Do not economize on the dry chemical. Use as much as needed to extinguish the fire. Remember that if two extinguishers do not put out the fire, use a fire hose.
  8. Get a fire hose to the scene as soon as possible, and use it for the reflash watch.
  9. After a dry chemical extinguisher has been used, invert the cylinder (figure 1, item 3), squeeze the discharge lever, and tap the nozzle on the deck. This releases any chemical in the cylinder (figure 1, item 3) and any chemical in the hose (figure 1, item 5) and nozzle (figure 1, item 4). By inverting the cylinder, further discharge of the dry chemical is prevented. Dry chemical in the hose and nozzle will cake up and cause clogging.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
FIREFIGHTING SYSTEM OPERATION USING PUMP DRIVE ENGINE**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

**References:**

WP 0071 00 (volume 1)

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**GENERAL**

The firefighting system can be pressurized by the diesel engine-driven firefighting pump if the fire and general service pumps fail.

**OPERATIONAL OVERVIEW**

In the event of a fire, perform the following procedures. They must be performed in the proper order to ensure crew safety and successful fire suppression.

**FIRE MAIN AND WASHDOWN COUNTERMEASURE SYSTEM**

1. Align the Piping System
2. Start the Pump
3. Secure the Piping System

**ALIGN THE PIPING SYSTEM**

1. OPEN the following valves:
  - a. FM-1, SEA SUCT F.F. PMP. (figure 1, item 1)
  - b. AE-28, SEACHEST VENT (figure 1, item 2)
  - c. FM-13, F. F. TO F. M. CRSVR (figure 1, item 3)
  - d. FO-31, F.O. SPLY TO PMP DRV ENG (figure 1, item 4)
  - e. FO-13, F.O. SERV. SUCT. PORT (figure 1, item 5)
  - f. FO-33, F.O. RTN TO DAY TK. PORT (figure 1, item 6)
  - g. Asw-17, SEA SUCTION S.W. COOLING (figure 1, item 7)
  - h. Asw-19, S.W. TO PUMP DRIVE ENG (figure 1, item 8)
  - i. Asw-20, S.W. FR. PUMP DRIVE ENG. TO OVB'D DISCHARGE (figure 1, item 9)
  - j. Asw-22, OVB'D. DISCH., S.W. COOLING (figure 1, item 10)
  - k. FF PMP. SUCT. STR. DIFF. PRESS. GAUGE CUTOUT and FIRE MAIN PRESS. GAUGE (figure 1, item 11)
  - l. SW STRNR. DIFF. PRESS. GAUGE CUTOUT valves (figure 1, item 12)

- m. GS-75, TOW WN HYD OIL CLR SPLY (figure 1, item 13)
- n. GS-77, HYD OIL CLR DISCH (figure 1, item 14)

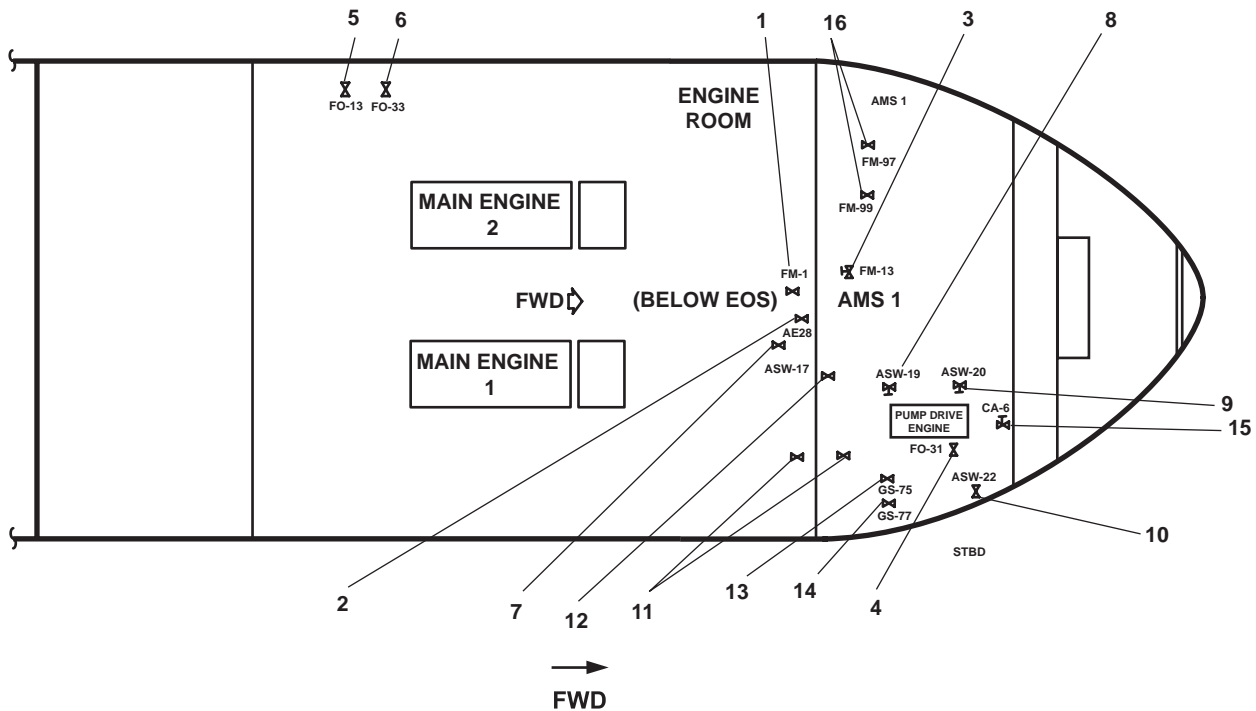


Figure 1. Firefighting System Valve Locations

- 2. CLOSE the following valves:
  - a. FM-14, FIRE/G.S. PMP. No. 2 DISCH. TO FM. (figure 2, item 1)
  - b. FM-16, FIRE/G.S. PMP. No. 1 DISCH TO FM (figure 2, item 2)
  - c. FM-6, FIRE/G.S. PMP. No. 1 SUCT (figure 2, item 3)
  - d. FM-7, FIRE/G.S. PMP. No. 2 SUCT (figure 2, item 4)
  - e. WDCM-11, WDCM SPLY (figure 2, item 5)
  - f. FM-60, FM-61, and FM-62, COV AFFF MON (figure 3, item 1)

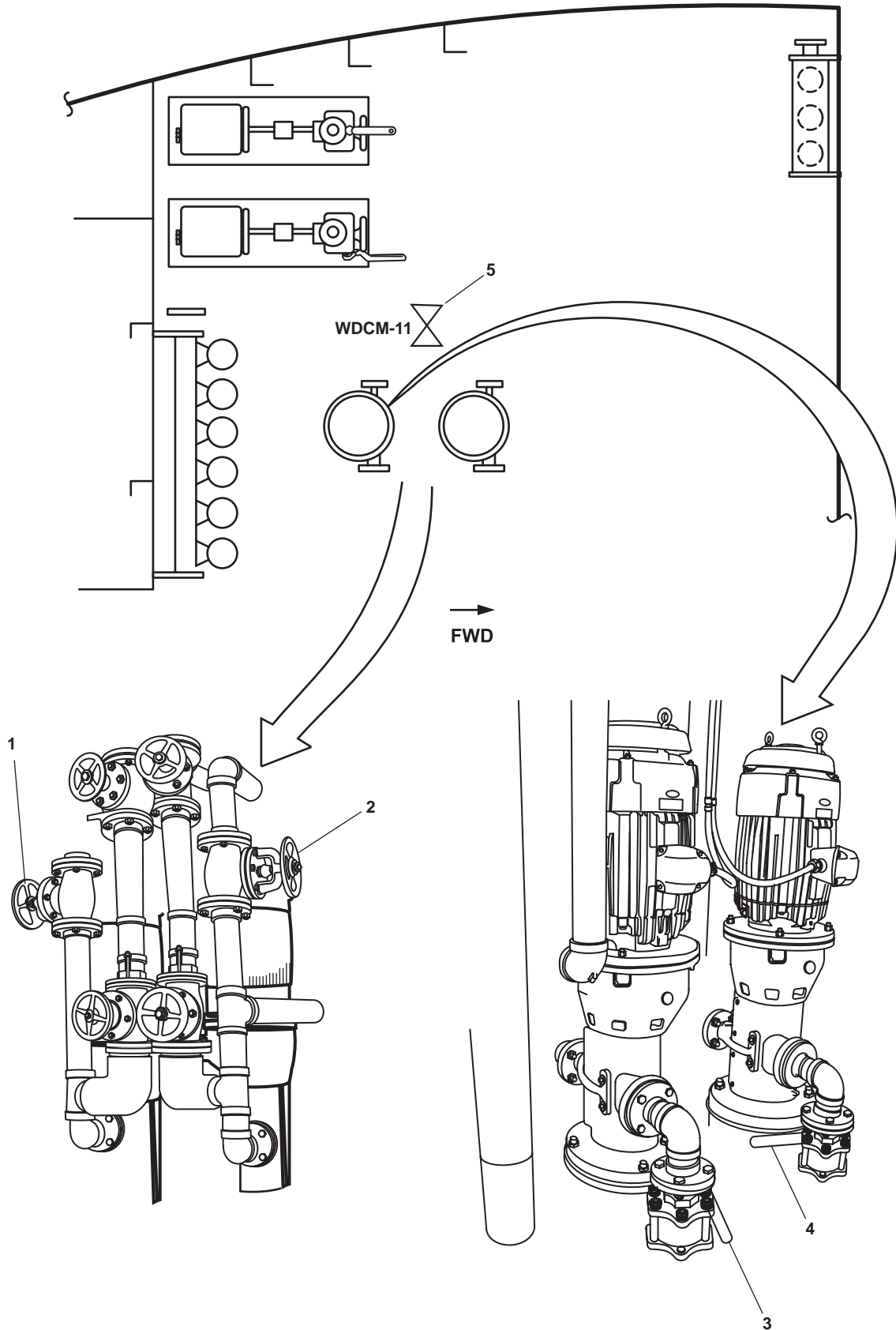


Figure 2. Fire and General Service Pump Locations

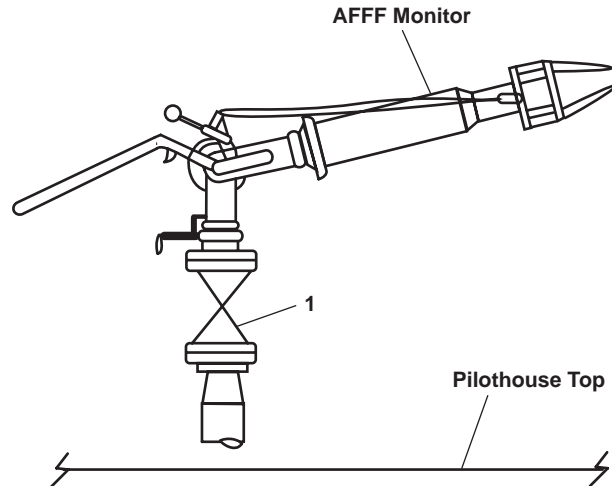


Figure 3. Fire Monitor

### START THE PUMP

1. At the machinery DC control distribution panel, set the PMP DR ENG circuit breaker (figure 4, item 1) to ON.

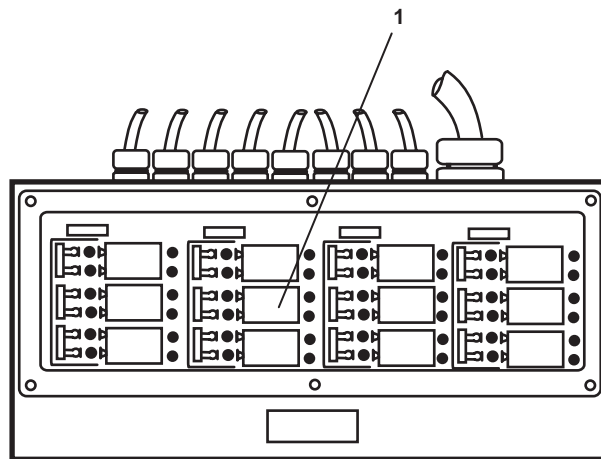


Figure 4. Machinery DC Control Distribution Panel

2. To start the pump drive engine:
  - a. Place the Power Take-Off (PTO) control lever (figure 5, item 1) in the disengaged (aft) position.
  - b. Move the governor control lever (figure 6, item 1) to the half engine speed position (approximately straight up).
  - c. Check the PMP DR ENG STG AIR PRESS gauge. The starting air pressure must be 100 PSI (6.9 bar) to operate properly.
  - d. OPEN CA-6, STG AIR TO PMP DR ENG (figure 1, item 15).
  - e. Turn the EMERGENCY/STOP pushbutton (figure 6, item 2) clockwise to release the pushbutton to the OUT position.

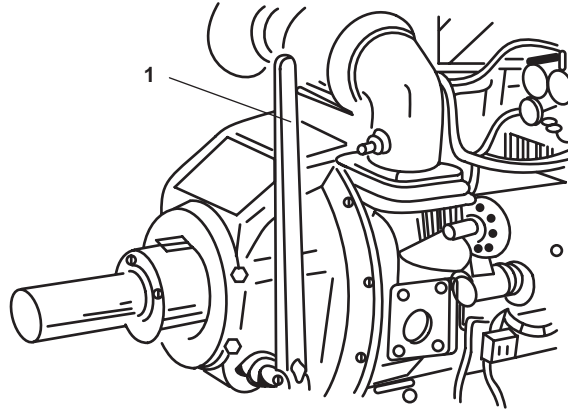


Figure 5. Pump Drive Engine PTO

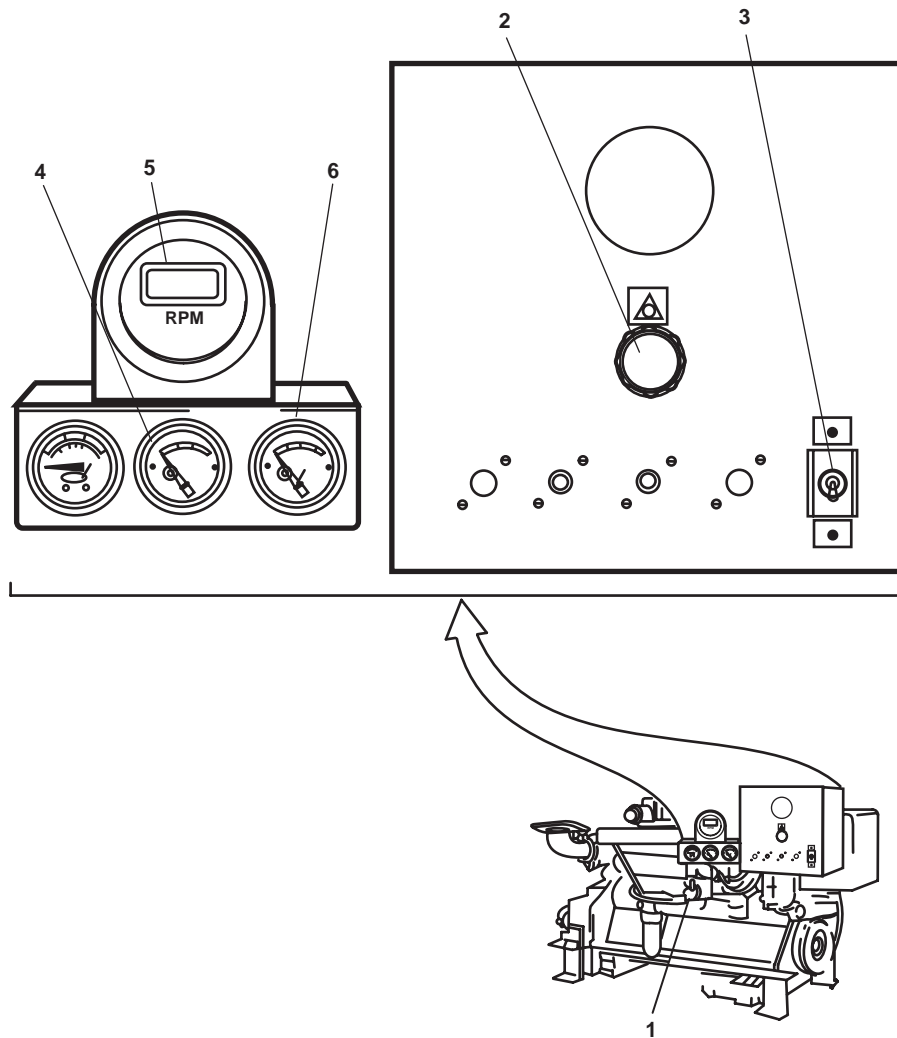


Figure 6. Pump Drive Engine Controls

- f. Push the START-STOP toggle switch (figure 6, item 3) to START in order to crank the engine. As soon as the engine starts, release the toggle switch (switch is spring-loaded and will return to run position).

 **CAUTION**

Oil pressure should rise to 24 PSI (1.7 bar) after the engine starts. If oil pressure does not rise, stop the engine immediately, push the toggle switch down to STOP to prevent damage, and refer the problem to unit maintenance.

- g. Allow the engine to idle 3 to 5 minutes, or until oil the pressure gauge (figure 6, item 4) reads 24 PSI (1.7 bar).
  - h. Operate the engine at low load until all systems reach operating temperatures. Check all gauges (figure 6, items 4, 5, and 6) during the warm-up period.
3. To operate the firefighting pump:
    - a. Ensure that the pump is primed.
    - b. Place the PTO lever (figure 5, item 1) in the engaged (forward) position.
    - c. Move the governor control lever (figure 6, item 1) to the high idle (full load) position.
    - d. Check the engine gauges (figure 6, items 4, 5, and 6) for readings in green range.
    - e. Observe the FIRE MAIN PRESS gauge to ensure that the firefighting pump is delivering liquid.
  4. Operate the fire main under usual conditions (WP 0071 00, volume 1).
  5. To shut down the firefighting pump:
    - a. Move the governor control lever (figure 6, item 1) to the half engine speed (slow idle).
    - b. Place the power take-off control lever (figure 5, item 1) in the disengaged (aft) position.

 **CAUTION**

Stopping the engine without a cooldown period may cause accelerated wear of engine components. Follow the stopping procedure below to avoid damage to the engine.

- c. Allow the engine to idle with no load for a minimum of 5 minutes.
- d. Move the governor control lever (figure 6, item 1) to the OFF position.
- e. Push the START-STOP toggle switch (figure 6, item 3) down to the OFF position.
- f. Push in the EMERGENCY/STOP pushbutton (figure 6, item 2).

### **SECURE THE PIPING SYSTEM**

CLOSE the following valves:

1. FM-1, SEA SUCT, F. F. PMP. (figure 1, item 1)
2. AE-28, SEACHEST VENT (figure 1, item 2)

3. FM-13, F. F. TO F. M. CRSVR (figure 1, item 3)
4. FO-31, F. O. SPLY TO PMP DRV ENG (figure 1, item 4)
5. FO-13, F. O. SERV. SUCT. PORT (figure 1, item 5)
6. FO-33, F. O. RTN TO DAY TK. PORT (figure 1, item 6)
7. Asw-17, SEA SUCTION S. W. COOLING (figure 1, item 7)
8. Asw-19, S. W. TO PUMP DRIVE ENG (figure 1, item 8)
9. Asw-20, S. W. FR. PUMP DRIVE ENG. TO OVB'D DISCHARGE (figure 1, item 9)
10. Asw-22, OVB'D. DISCH. , S. W. COOLING (figure 1, item 10)
11. CA-6, STG AIR TO PMP DR ENG (figure 1, item 15)
12. FF PMP. SUCT. STIR. DIFF. PRESS. GAUGE CUTOUT and FIREMAN PRESS. GAUGE (figure 1, item 11)
13. SW STRNR. DIFF. PRESS. GAUGE CUTOUT valves (figure 1, item 12)
14. GS-75, TOW WN HYD OIL CLR SPLY (figure 1, item 13)
15. GS-77, HYD OIL CLR DISCH (figure 1, item 14)

#### **WASHDOWN COUNTERMEASURE SYSTEM**

#### **ALIGN THE PIPING SYSTEM**

1. OPEN the following valves:
  - a. FM-1, SEA SUCT F. F. PMP. (figure 1, item 1)
  - b. AE-28, SEACHEST VENT (figure 1, item 2)
  - c. FM-13, F.F. TO F. M. CRSVR (figure 1, item 3)
  - d. WDCM-11, WDCM SPLY (figure 1, item)
  - e. FO-31, F.O. SPLY TO PMP DR ENG (figure 1, item 4)
  - f. FO-13, F.O. SERV. SUCT. PORT (figure 1, item 5)
  - g. FO-33, F.O. RTN. TO DAY TK. PORT (figure 1, item 6)
  - h. Asw-19, S. W. TO PUMP DRIVE ENG (figure 1, item 8)
  - i. Asw-20, S. W. FR. PUMP DRIVE ENG. TO OVB'D DISCHARGE (figure 1, item 9)
  - j. Asw-22, OVBD. DISCH., S. W. COOLING (figure 1, item 10)
  - k. Asw-17, SEA SUCTION S. W. COOLING (figure 1, item 7)
  - l. FM-97 and FM-99, PRESSURE GAUGE CUTOUT valves (figure 1, item 16)
  - m. GS-75, TOW WN HYD OIL CLR SPLY (figure 1, item 13)
  - n. GS-77, HYD OIL CLR DISCH (figure 1, item 14)

2. CLOSE the following valves:
  - a. FM-14, FIRE/G. S. PMP. No. 2 DISCH. TO FM. (figure 2, item 1)
  - b. FM-16, FIRE/G. S. PMP No. 1 DISCH TO FM (figure 2, item 2)
  - c. FM-6, FIRE/G. S. PMP No. 1 SUCT (figure 2, item 3)
  - d. FM-7, FIRE/G. S. PMP No. 2 SUCT (figure 2, item 4)
3. Perform the Start The Pump procedure in this work package.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
EMERGENCY BILGE PUMPING USING FIRE AND GENERAL SERVICE PUMPS**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

**References:**

WP 0071 00 (volume 1)

WP 0079 00 (volume 1)

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**GENERAL**

In the event that the bilge pump is disabled, fire and general service pump 1 has the capability to temporarily replace the bilge/ballast pumps when pumping the bilges directly overboard.

 **CAUTION**

Using fire and general service pump No. 1 to pump bilges may contaminate the piping in the fire and general service system that can cause damage to other systems such as the reverse osmosis water purification system. This procedure should only be used in cases of extreme necessity or in an emergency.

**PREPARE FOR SYSTEM OPERATION**

1. CLOSE the following valves:
  - a. FM-16, FIRE/G.S. PMP No. 1 DISCH TO FM (figure 1, item 1)
  - b. FM-17, FIRE/G.S. PMP No. 1 DISCH TO GS (figure 1, item 2)
  - c. FM-2, SEA SUCT. FIRE/G.S. &BLST PMPS. (figure 2, item 1)
  - d. HIGH LEVEL SEACHEST CROSS CONNECT (figure 2, item 2)
  - e. BB-35, B/B PMP No. 1 BLST. TO MANF. (figure 3, item 1)
  - f. BB-33, B/B PMP. No. 2 BLST TO MANF. (figure 3, item 2)
  - g. BB-34, B/B PMP. No. 1 OVBD DISCH. (figure 3, item 3)
  - h. BB-32, B/B PMP No. 2 OVBD DISCH (figure 3, item 4)
  - i. BB-28, BILGE-ENG.RM. EMER SUCT. (figure 3, item 5)
  - j. BB-25, BLST MANF TO PMPS OUTLT (figure 3, item 6)
2. OPEN the following valves:
  - a. FM-6, FIRE/G.S. PMP No. 1 SUCT (figure 2, item 3)
  - b. FM-8, EMG. BILGE OVBD (figure 3, item 7)
  - c. FM-31, OVBD. DISCH (figure 3, item 8)

- d. BB-26, B/B PMP No. 1 BLST. SUCT (figure 3, item 9)
- e. BB-27, B/B PMP No. 2 BLST. SUCT (figure 3, item 10)
- f. BB-29, B/B PMP No. 1 BILGE SUCT. (figure 3, item 11)
- g. BB-30, B/B PMP No. 2 BILGE SUCT (figure 3, item 12)
- h. BB-13, S.W. TO BLST. PMPS (figure 2 item 4)

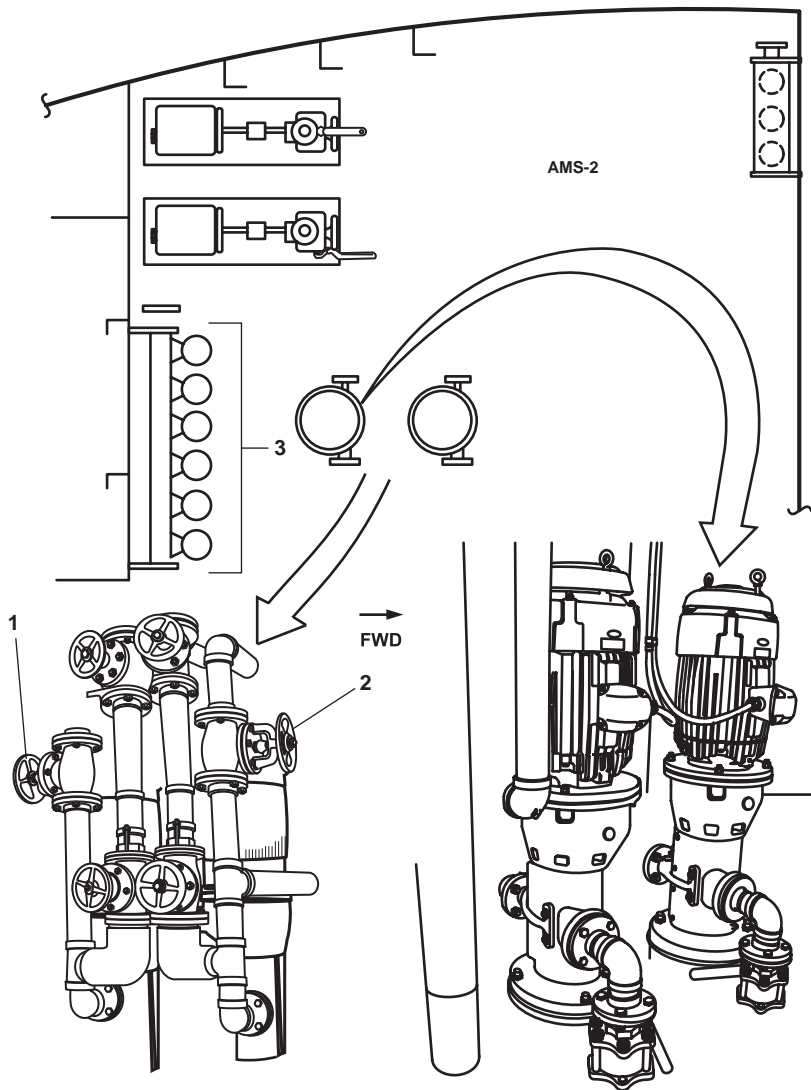


Figure 1. Emergency Bilge Pumping Valve Locations

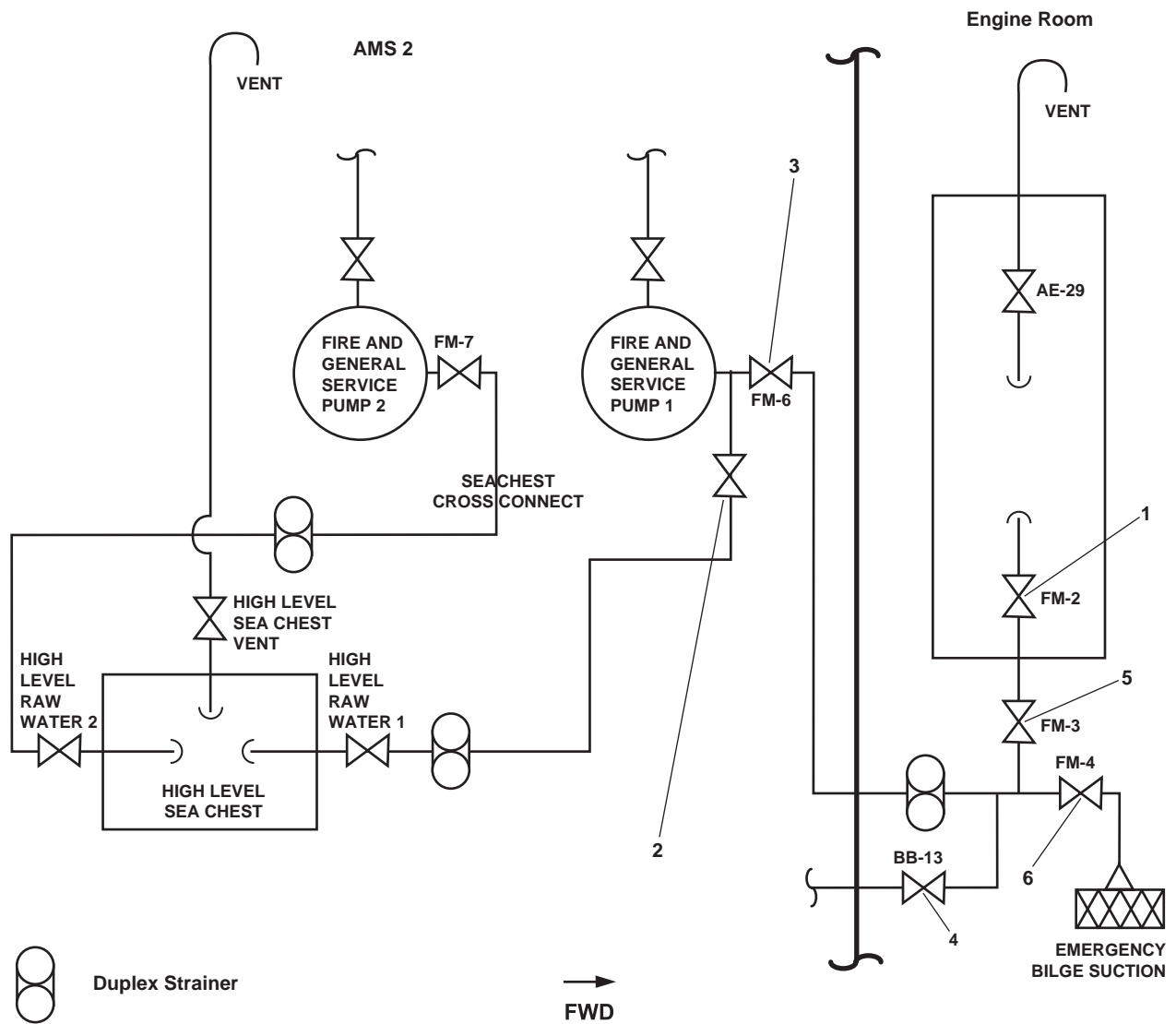


Figure 2. Firemain and General Service Valve Locations

3. At the emergency switchboard, set the FIRE PUMP NO. 1 circuit breaker (figure 4, item 1) to ON.
4. At fire and general service pump No. 1 motor controller:
  - a. Set the LOCAL-REMOTE switch (figure 5, item 1) to LOCAL.
  - b. Set the ON-OFF switch (figure 5, item 2) to ON.
  - c. Verify that the POWER AVAILABLE indicator (figure 5, item 3) illuminates.

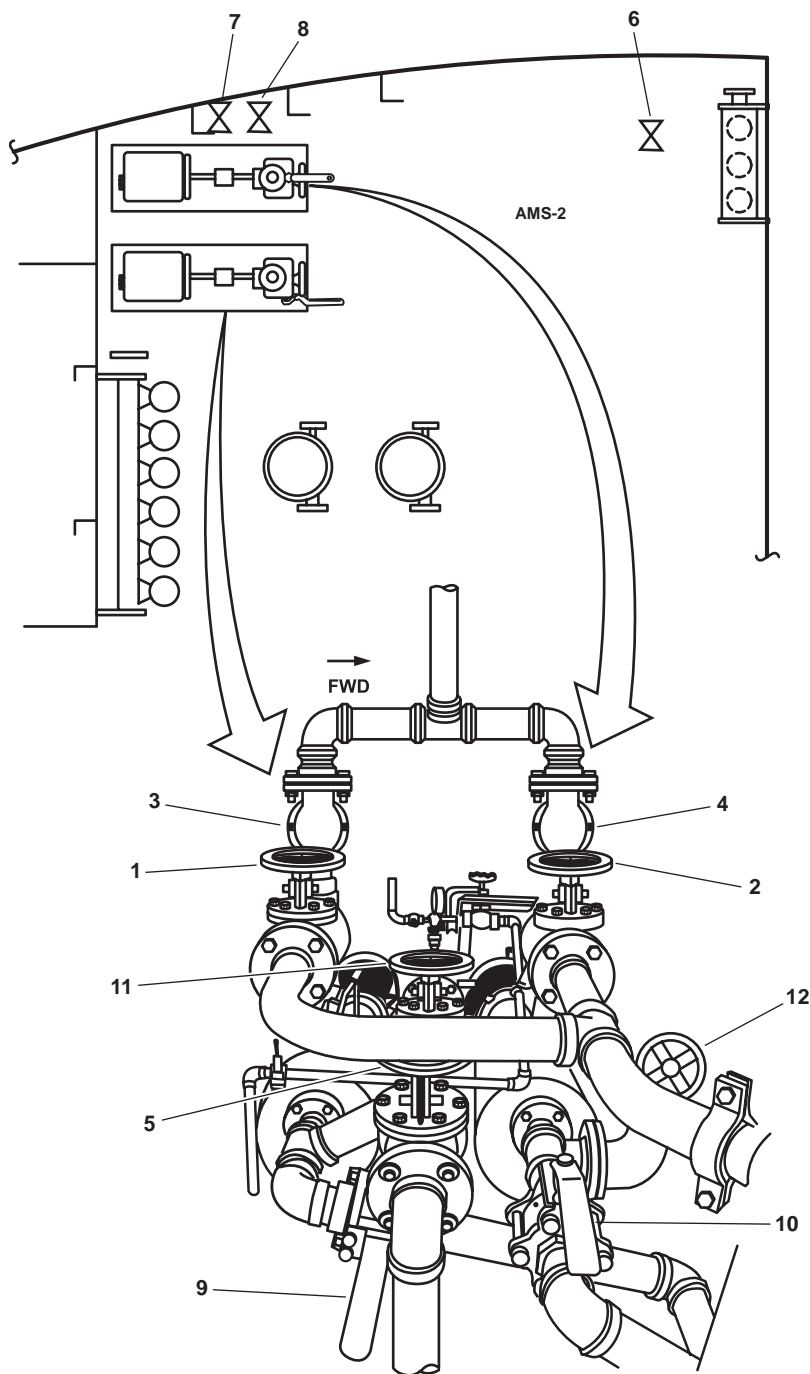
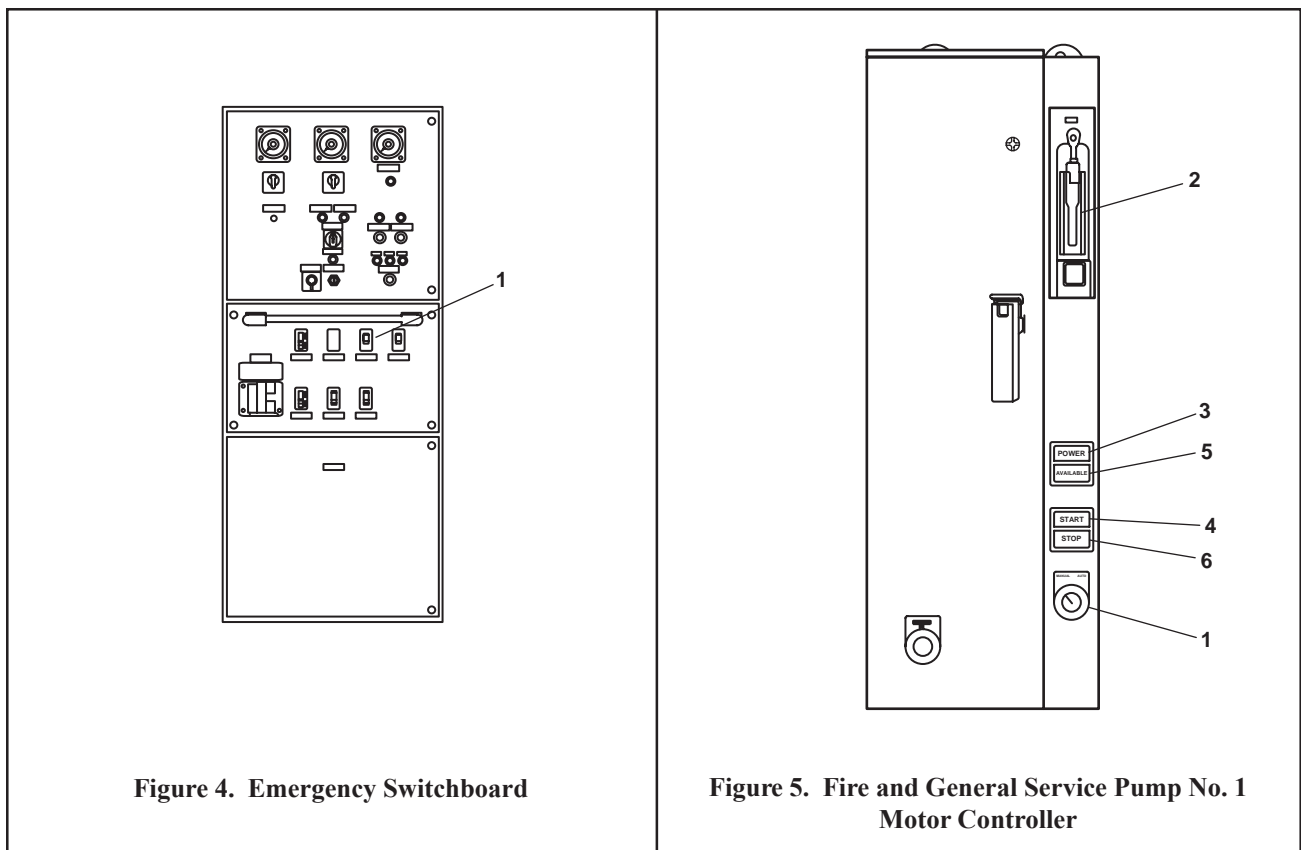


Figure 3. Bilge/Ballast Valve Locations



### **PUMPING THE AFT ENGINE ROOM BILGE USING FIRE AND GENERAL SERVICE PUMP 1**

1. CLOSE valve FM-3, S.W. TO BILGE/BLST. PMPS. (figure 2, item 5).
2. OPEN valve FM-4, EMER BILGE SUCT (figure 2, item 6).
3. Start the pump by completing the following at the fire and general pump No. 1 motor controller:
  - a. Press START (figure 5, item 4).
  - b. Verify that the MOTOR RUN indicator (figure 5, item 5) illuminates.
4. When pumping is complete:
  - a. Press STOP (figure 5, item 6) at the fire and general service pump No. 1 motor controller.
  - b. Verify that the MOTOR RUN indicator (figure 5, item 5) goes out.
  - c. CLOSE valve FM-4, EMER BILGE SUCT (figure 2, item 6).
  - d. Perform the Secure From Emergency Bilge Pumping procedure in this work package.

### **PUMPING BILGES OTHER THAN THE AFT ENGINE ROOM BILGE USING FIRE AND GENERAL SERVICE PUMP 1**

1. OPEN valve FM-3, S.W. TO BILGE/BLST. PMPS. (figure 2, item 5)
2. CLOSE valve FM-4, EMER BILGE SUCT (figure 2, item 6).

3. On the bilge manifold (figure 1, item 3), OPEN the valve for the desired bilge.
4. Start the pump by completing the following at the fire and general pump No. 1 motor controller:
  - a. Press START (figure 5, item 4).
  - b. Verify that the MOTOR RUN indicator (figure 5, item 5) illuminates.
5. When pumping is complete:
  - a. Press STOP (figure 5, item 6) at the fire and general service pump No. 1 motor controller.
  - b. Verify that the MOTOR RUN indicator (figure 5, item 5) goes out.
  - c. CLOSE the bilge suction valve that was OPENED in step 3 above.
  - d. CLOSE valve FM-3, S.W. TO BILGE/BLST. PMPS. (figure 2, item 5).
  - e. Perform the Secure From Emergency Bilge Pumping procedure in this work package.

#### **SECURE FROM EMERGENCY BILGE PUMPING**

1. Operate the bilge/ballast system under usual conditions (WP 0079 00, volume 1).
2. Operate the firemain and general service system under usual conditions (WP 0071 00, volume 1).
3. Return the equipment to the desired readiness condition.

**END OF WORK PACKAGE**

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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
MAIN ENGINE EMERGENCY STOPPING**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

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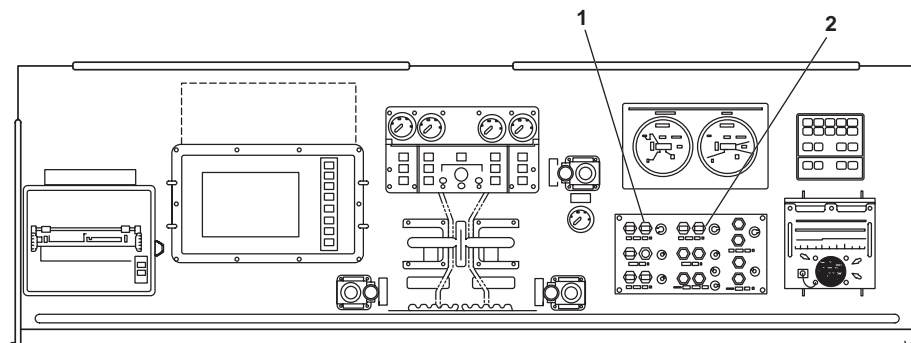
**EMERGENCY STOPPING****STARBOARD MAIN ENGINE**

1. Stop the engine using one of the two methods below:
  - a. Preferred method: Press the NO. 1 MN ENG STOP red pushbutton (figure 1, item 1) on the EOS console.
  - b. Alternate method: Move the overspeed trip lever (figure 2, item 1) to TRIPPED.

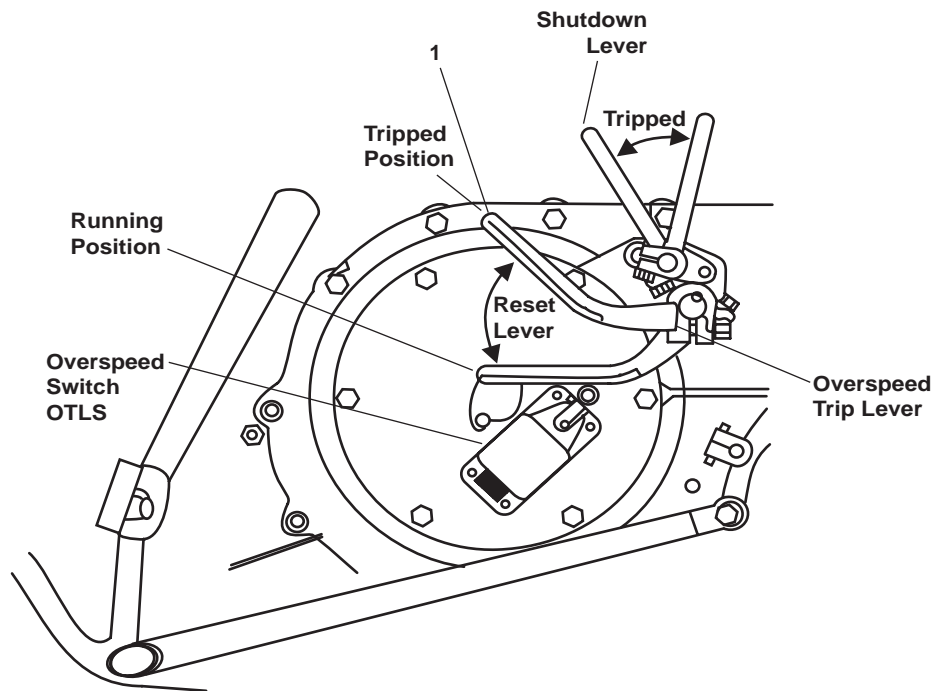
**NOTE**

The turbocharger lube oil pump will automatically run for a short time after the engine stops.

2. CLOSE the following valves:
  - a. CA-9, STG AIR TO ME #1 (figure 3, item 1).
  - b. Fwc-13, F.W. FR. RED. GEAR No. 1 TO KEEL CLR (figure 3, item 2)
  - c. Fwc-15, F.W. FR. KEEL CLR TO RED. GEAR No. 1 (figure 3, item 3)
  - d. Fwc-3, F.W. FR. M.E. No. 1 TO KEEL CLR. (figure 3, item 4)
  - e. Fwc-1, F.W. FR. KEEL CLR TO M.E. N0. 1 (figure 3, item 5)
  - f. FO-15, F.O. SERV. SUCT. STBD (figure 3, item 6)
  - g. FO-35, F.O. RTN TO DAY TK. STBD (figure 3, item 7)
  - h. FO-20, F.O. SPLY TO STBD ME No. 1 (figure 3, item 8)



**Figure 1. EOS Console**



**Figure 2. Overspeed Trip Lever**

- i. FO-14, F.O. SERV CRSVR (figure 3, item 9)
  - j. FO-34, F.O. RTN CRSVR (figure 3, item 10)
3. Secure the reduction gear cooling pump motor controller by performing the following actions at the motor controller located on the aft bulkhead of the engine room:
    - a. Press STOP (figure 4, item 1). The motor RUN indicator (figure 4, item 2) will go out.
    - b. Set the ON-OFF switch (figure 4, item 3) to OFF.
  4. At 440V power panel No. 1, set the following circuit breakers to OFF:
    - a. FRESH WATER PUMP No. 1, (REDUCTION GEAR). (figure 5, item 1)
    - b. MAIN ENGINE LUBE OIL PRIMING PUMP No. 1. (figure 5, item 2)
    - c. MAIN ENGINE JACKET WATER HEATER No. 1./TURBO OIL PUMP No. 1./WATER LAY OVER PUMP No. 1. (figure 5, item 3)



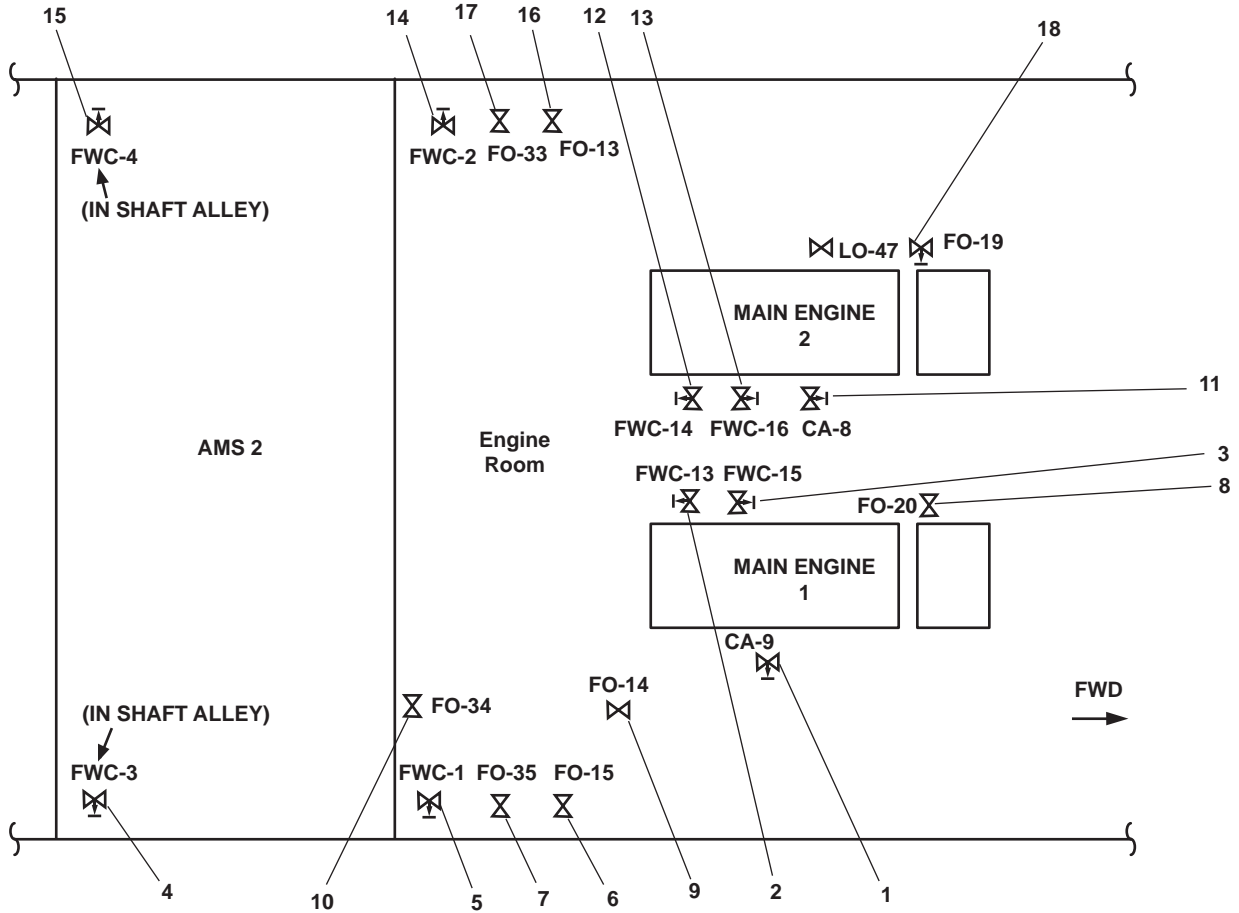


Figure 3. Main Engine Valves

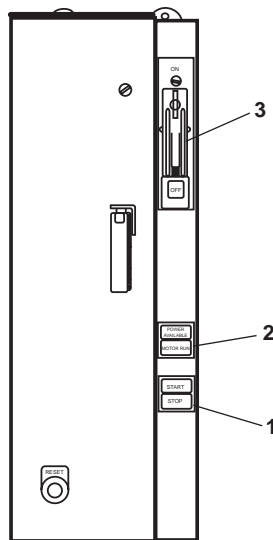
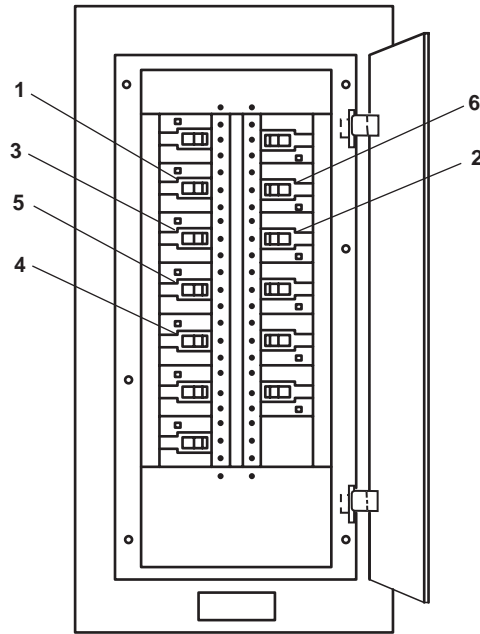


Figure 4. Fresh Water Reduction Gear Cooling Pump Motor Controller



**Figure 5. 440V Power Panel No. 1**

## EMERGENCY STOPPING

### PORT MAIN ENGINE

1. Stop the engine using one of the two methods below:
  - a. Preferred method: NO. 2 MN ENG STOP red pushbutton (figure 1, item 2) on the EOS console.
  - b. Alternate method: Move the overspeed trip lever to the tripped position (figure 2, item 1).

#### NOTE

Turbocharger lube oil pump will automatically run for a short time after engine stops.

2. CLOSE the following valves:
  - a. CA-8, STG AIR TO ME #2 (figure 3, item 11).
  - b. Fwc-14, F.W. FR. RED. GEAR No. 2 TO KEEL CLR (figure 3, item 12)
  - c. Fwc-16, F.W. FR. KEEL CLR TO RED. GEAR No. 2 (figure 3, item 13)
  - d. Fwc-2, F.W. FR. KEEL CLR TO M.E. No 2 (figure 3, item 14)
  - e. Fwc-4, F.W. FR. M.E. No. 2 TO KEEL CLR. (figure 3, item 15)
  - f. FO-13, F.O. SERV. SUCT. PORT (figure 3, item 16)
  - g. FO-33, F.O. RTN TO DAY TK. PORT (figure 3, item 17)

- 
- h. FO-19, F.O. SPLY TO PORT ME No. 2 (figure 3, item 18)
  - i. FO-14, F.O. SERV CRSVR (figure 3, item 9)
  - j. FO-34, F.O. RTN CRSVR (figure 3, item 10)
3. Secure the reduction gear cooling pump motor controller by performing the following actions at the motor controller located on the aft bulkhead of the engine room:
    - a. Press STOP (figure 4, item 1). The motor RUN indicator (figure 4, item 2) will go out.
    - b. Set the ON-OFF switch (figure 4, item 3) to OFF.
  4. At 440V power panel No. 1, set the following circuit breakers to OFF:
    - a. MAIN ENGINE JACKET WATER HEATER No. 2/TURBO OIL PUMP No. 2./WATER LAY OVER PUMP No. 2. (figure 5, item 4)
    - b. MAIN ENGINE LUBE OIL PRIMING PUMP No. 2 (figure 5, item 5)
    - c. FRESH WATER PUMP No. 2, (REDUCTION GEAR) (figure 5, item 6)

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
MAIN ENGINE COLD WEATHER STARTING**

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**INITIAL SETUP:****Materials/Parts:**

Aural Protector, Sound (Item 12, Table 3, WP 0163 00)  
Goggles, Industrial (Item 272, Table 3, WP 0163 00)

**Personnel Required:**

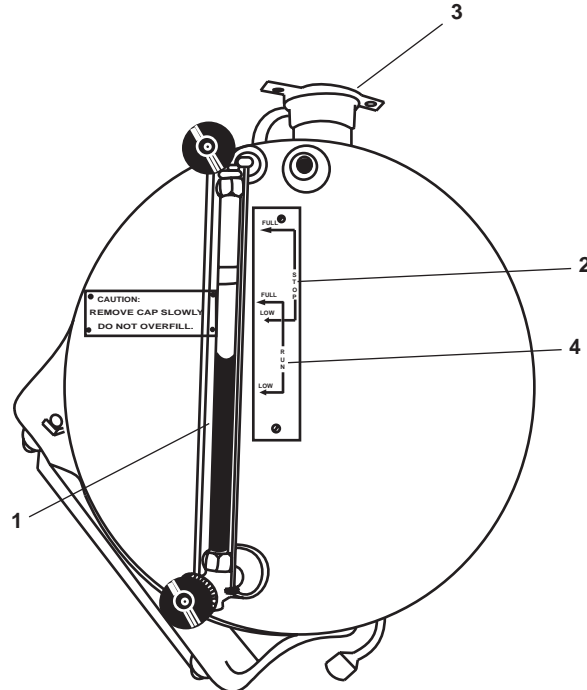
Two Watercraft Engineers, 88L

**References:**

TM 55-1925-208-24  
TM 55-1925-223-24&P  
TM 55-1925-286-13&P  
TM 55-1925-292-15&P  
WP 0163 00

**START THE STARBOARD PROPULSION PLANT**

1. Ensure that the air compressors are online and that the starting air receivers are pressurized to 250 PSI (17.2 bar). If the compressors are not online or the starting air receivers are not charged, START the air compressors (TM 55-1925-286-13&P).
2. Check that the coolant level in the starboard main engine coolant expansion tank sight glass (figure 1, item 1) is between LOW and FULL in the STOP range (figure 1, item 2). If the coolant is not between LOW and FULL, add coolant through the fill cap (figure 1, item 3) until the proper level is achieved. Proper engine coolant is a 50/50 mix of ethylene glycol antifreeze and water.



**Figure 1. Main Engine Coolant Expansion Tank**

3. Check that the starboard main engine oil is at the normal level on the dipstick (figure 2, item 1). If the engine oil level is low, add oil until the proper level is achieved. Refer to TM 55-1925-208-24 or maintenance supervisor for oil specification.
4. Check that the starboard reduction gear oil is at the normal level on the dipstick (figure 2, item 2). If the reduction oil is level low, add oil until the proper level is achieved. Refer to TM 55-1925-223-24&P or maintenance supervisor for oil specification.
5. At 440V power panel No. 1, set the following circuit breakers to ON:
  - a. FRESH WATER PUMP No. 1, (REDUCTION GEAR). (figure 3, item 1)
  - b. MAIN ENGINE LUBE OIL PRIMING PUMP No. 1. (figure 3, item 2).
  - c. MAIN ENGINE JACKET WATER HEATER No. 1./TURBO OIL PUMP No. 1./WATER LAY OVER PUMP No. 1. (figure 3, item 3).
6. Allow the main engine jacket water heater to run for at least 8 hours before continuing with this procedure.
7. OPEN valve Lo-47, C.O.V. PRELUBE PMP. DISCH. (figure 2, item 3).
8. PUSH the START pushbutton (figure 4, item 1) for the prelube pump.
9. At 120V emergency distribution panel No. 1, ensure that the following circuit breakers are set to ON:

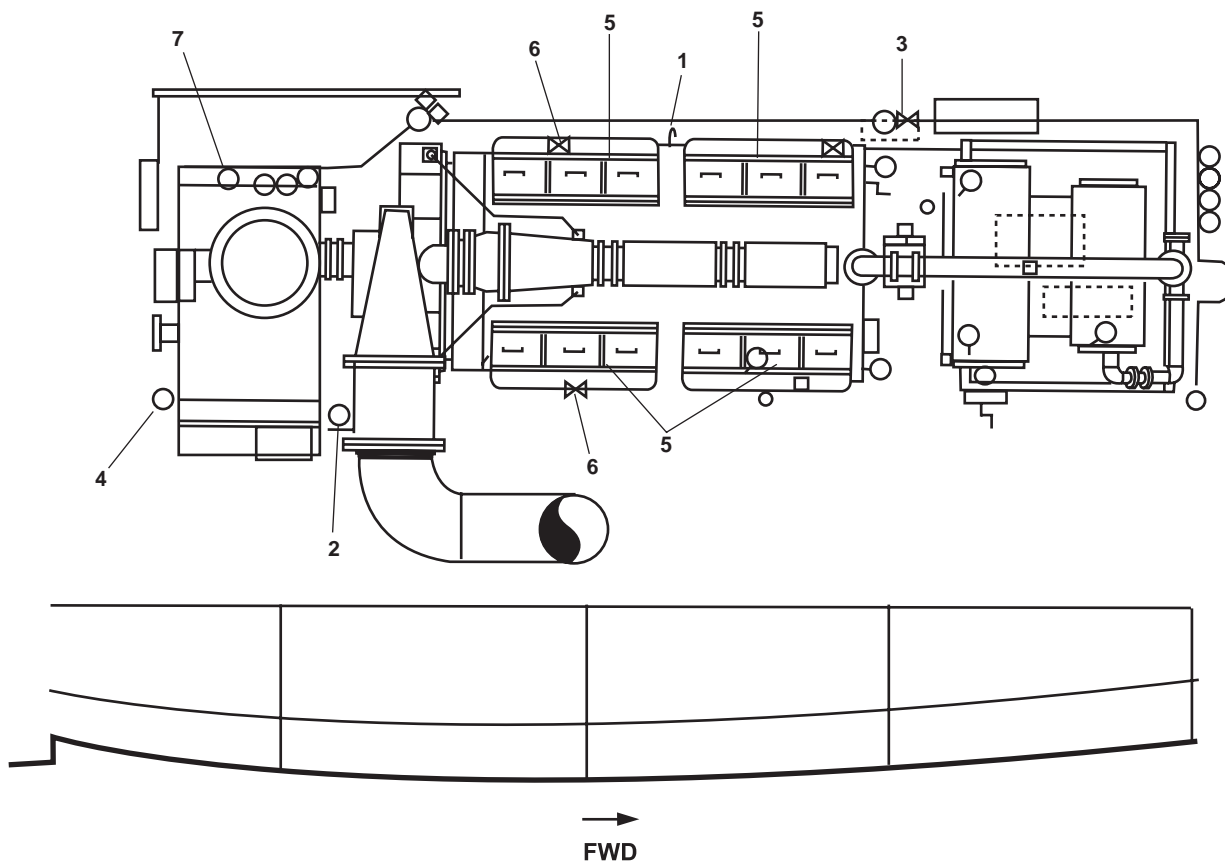


Figure 2. Starboard Main Engine and Reduction Gear

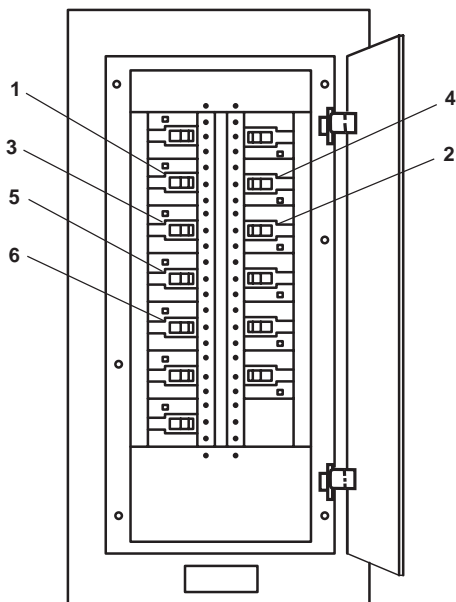


Figure 3. 440V Power Panel No. 1

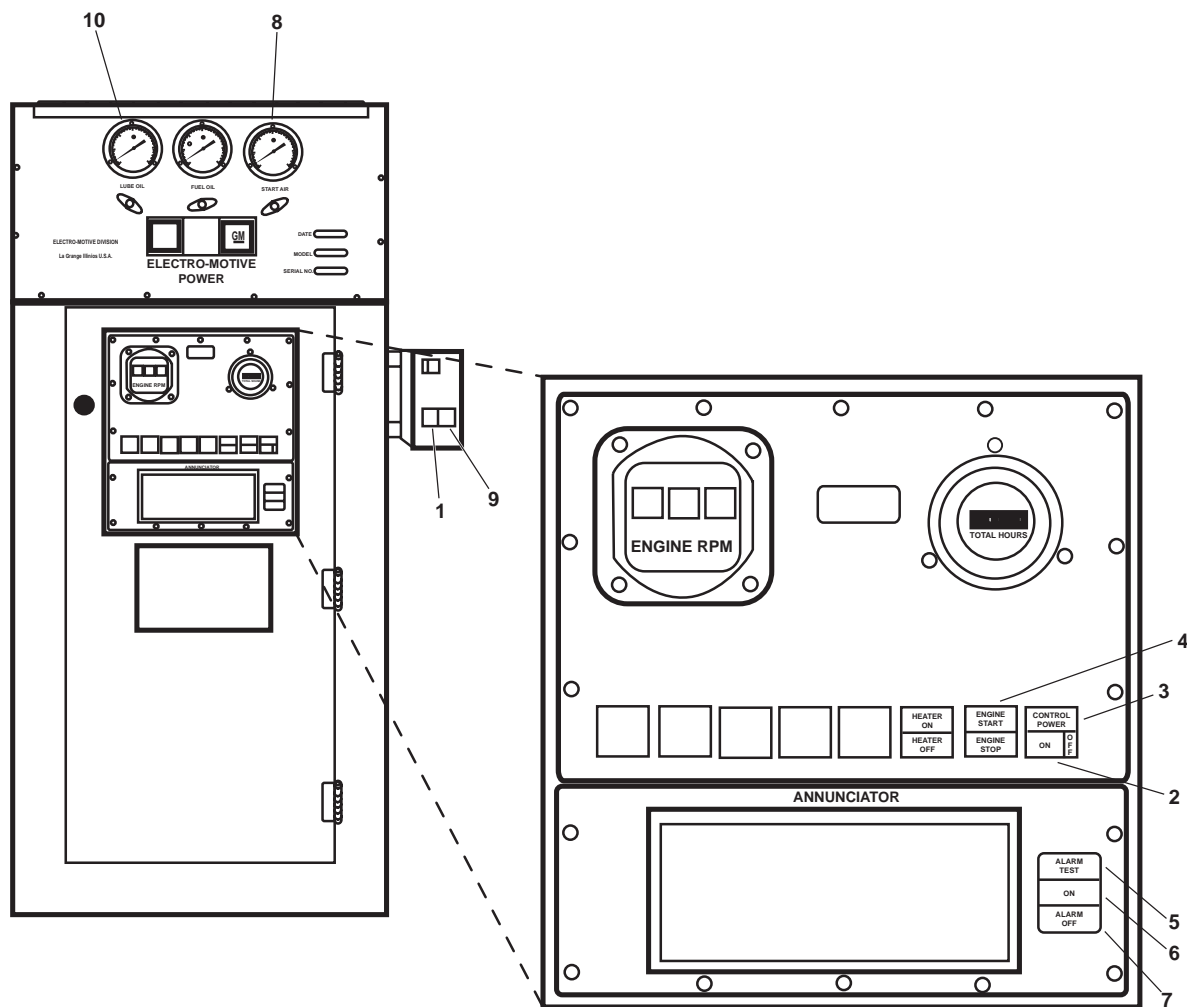


Figure 4. Starboard Main Engine Control Panel

## NOTE

If necessary to silence the fire alarm, obtain the key, unlock the fire and smoke alarm panel and press the ALARM SILENCE pushbutton (TM 55-1925-292-14&P).

- a. FIRE DETECTION SYSTEM. (figure 5, item 1).
  - b. E.O.T. SYSTEM. (figure 5, item 2).
  - c. MONITOR SYSTEM CIRCUIT. (figure 5, item 3).
  - d. REMOTE PROPULSION INDICATOR PANEL. (figure 5, item 4).
10. OPEN the following fuel system valves:
- a. FO-20, F.O. SPLY TO STBD ME No. 1 (figure 6, item 1).
  - b. FO-14, F.O. SERV CRSVR (figure 6, item 2).
  - c. FO-15, F.O. SERV. SUCT. STBD (remote operator in the galley) (figure 6, item 3).
  - d. FO-35, F.O. RTN TO DAY TK. STBD (figure 6, item 4).
  - e. FO-34, F.O. RTN CRSVR (figure 6, item 5).
  - f. Four Racor fuel supply cutoff valves (figure 7, item 1) and four Racor fuel discharge cutoff valves (figure 7, item 2) located at the forward inboard corner of the engine.
11. OPEN the following coolant valves:
- a. Fwc-15, F.W. FR. KEEL CLR TO RED. GEAR No. 1 (figure 6, item 6)
  - b. Fwc-13, F.W. FR. RED. GEAR No. 1 TO KEEL CLR (figure 6, item 7)
  - c. Fwc-1, F.W. FR. KEEL CLR TO M.E. N0. 1 (figure 6, item 8)
  - d. Fwc-3, F.W. FR. M.E. No. 1 TO KEEL CLR. (figure 6, item 9)

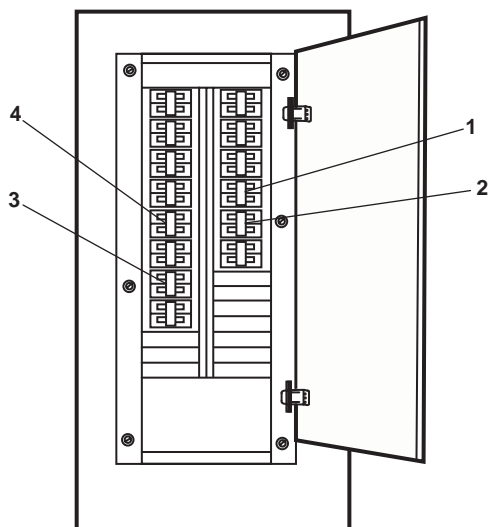


Figure 5. 120V Emergency Distribution Panel No. 1



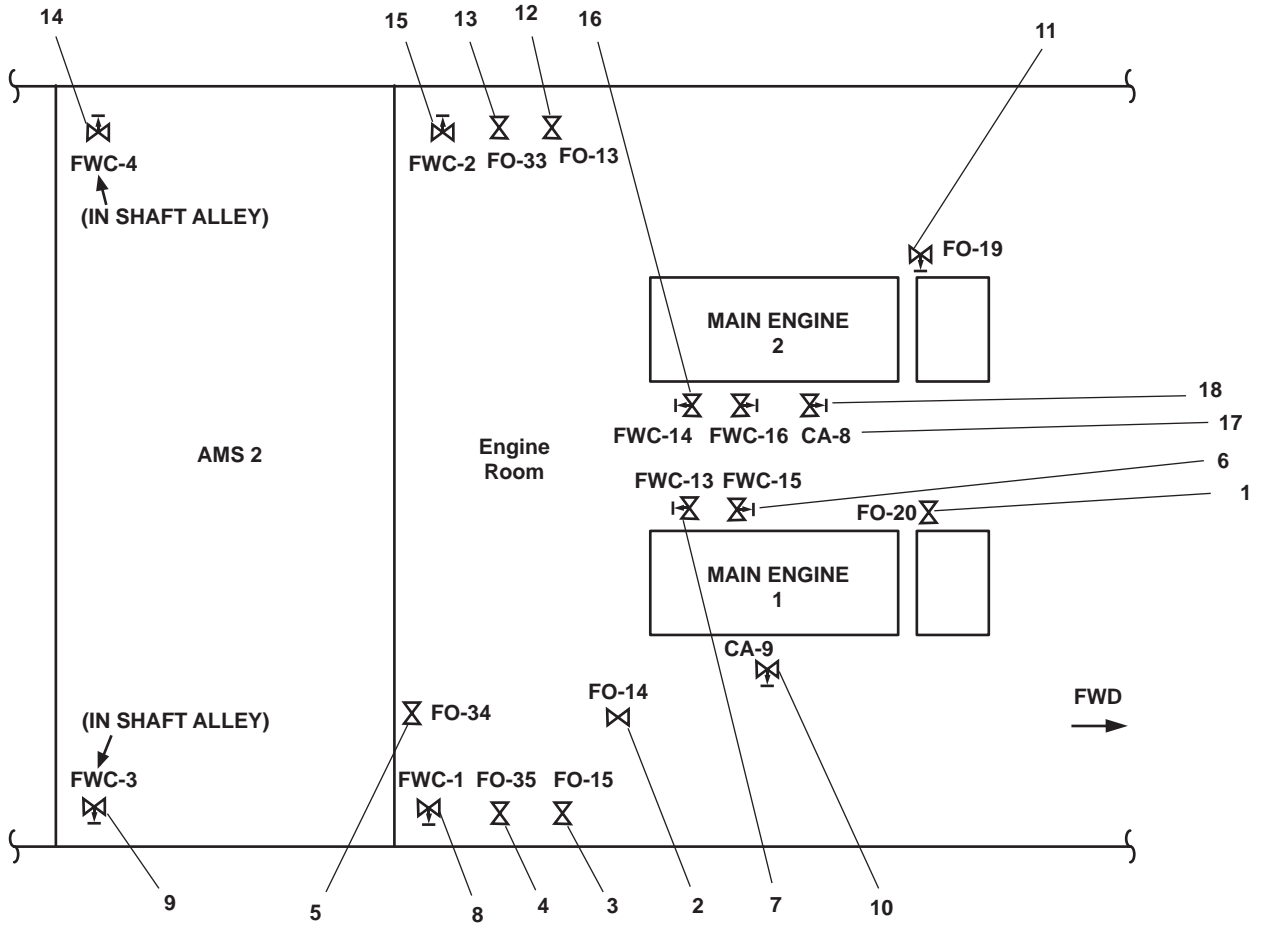


Figure 6. Main Propulsion System Valve Locations

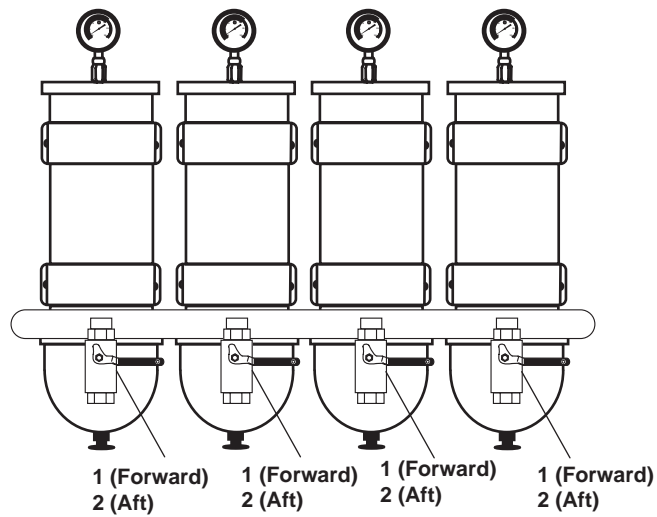


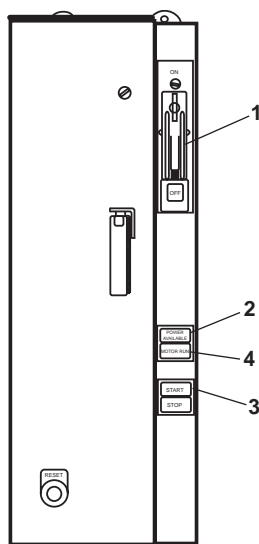
Figure 7. Racor Valves

12. Start the reduction gear 1 fresh water cooling pump by performing the following actions at its motor controller (located on the engine room aft bulkhead):
  - a. Set the ON-OFF switch (figure 8, item 1) to the ON position.
  - b. Verify that the POWER AVAILABLE indicator (figure 8, item 2) is energized.
  - c. Press the START pushbutton (figure 8, item 3).
  - d. Verify that the MOTOR RUN indicator (figure 8, item 4) is energized.
13. Verify that the reduction gear 1 fresh water cooling pump discharge pressure gauge reads approximately 20 PSI (1.4 bar).
14. Verify that coolant is visible in the reduction gear 1 expansion tank sight glass. The sight glass is located on the forward end of the expansion tank, near the overhead, above reduction gear 1. If coolant is not visible, add coolant through the fill port. Refer to TM 55-1925-223-24&P or the maintenance supervisor for the reduction gear coolant specification.
15. OPEN valve CA-9, STG AIR TO ME #1 (figure 6, item 10).

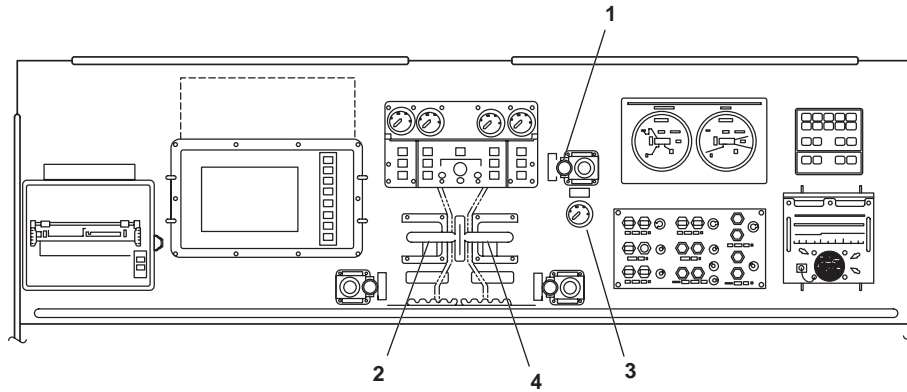


**Starting the main engine with the reduction gear engaged can result in injury or death to personnel.**

16. On the EOS console, place the COMMAND TRANSFER control (figure 9, item 1) in the EOS position.



**Figure 8. Reduction Gear Fresh Water Cooling Pump Motor Controller**



**Figure 9. EOS Console**

17. On the EOS console, place the STBD MN ENG THROTTLE/CLUTCH lever (figure 9, item 2) in the NEUTRAL (straight UP) position.

18. At the starboard main engine control panel:

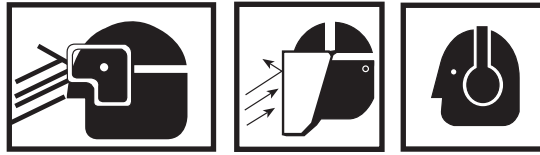
- a. Press the ON pushbutton (figure 4, item 2), and verify that the CONTROL POWER indicator (figure 4, item 3) is illuminated.

**NOTE**

Main engine start normally includes a 60-second operation of the turbo lube oil pump prior to starting the engine. However, in an emergency, the engine may be started without delay.

- b. Momentarily press and release the ENGINE START pushbutton (figure 4, item 4) to start the turbocharger lube oil pump.
  - c. Verify that the ALARM TEST indicator (figure 4, item 5) is illuminated.
  - d. Verify that the power ON indicator (figure 4, item 6) is illuminated.
  - e. Verify that the ALARM OFF indicator (figure 4, item 7) is illuminated.
  - f. Verify that the START AIR pressure gauge (figure 4, item 8) indicates approximately 200 PSI (13.8 bar).
19. On the EOS console, verify that the CONTROL AIR PRESSURE gauge (figure 9, item 3) indicates approximately 125 PSI (8.6 bar).
20. Ensure that the shaft brake pressure gauge (figure 2, item 4) indicates 1200 to 1500 PSI (82.7-103.4 bar).
21. Open the engine top deck covers (figure 2, item 5) and check that the valve train is receiving adequate flow from the prelube pump. If the flow is adequate, close the engine top deck covers. If the flow is inadequate, notify unit maintenance.
22. Blow down the starboard main engine by performing the following steps:
- a. Open the test valves (figure 10, item 1) on both sides of the starboard main engine, approximately ½ inch.

## WARNING



Use eye protection when checking test valves. Failure to comply could result in severe eye damage, blindness, or death.

Do not permit personnel to stand between or outboard of the engines during blowdown. Failure to comply can result in injury or death.

High noise levels are present in the engine room and AMS 1 when the engines are operating. Hearing protection must be worn at all times when the engines are operating. Failure to comply can result in permanent loss of hearing.

- b. Pull OUT on the governor's alarm switch plunger (figure 11, item 1) to prevent the engine from starting unexpectedly.
- c. Press and hold the ENGINE START pushbutton (figure 4, item 4) to crank the engine for 1-2 complete revolutions. Release the ENGINE START pushbutton when finished cranking.

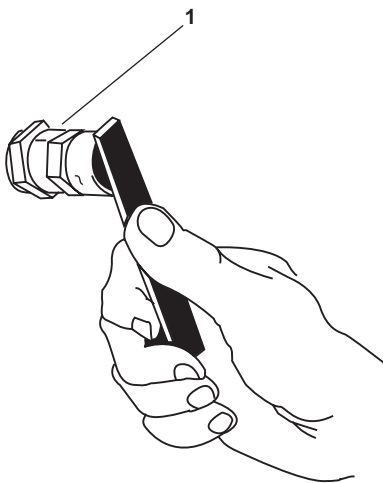


Figure 10. Main Engine Test Valve

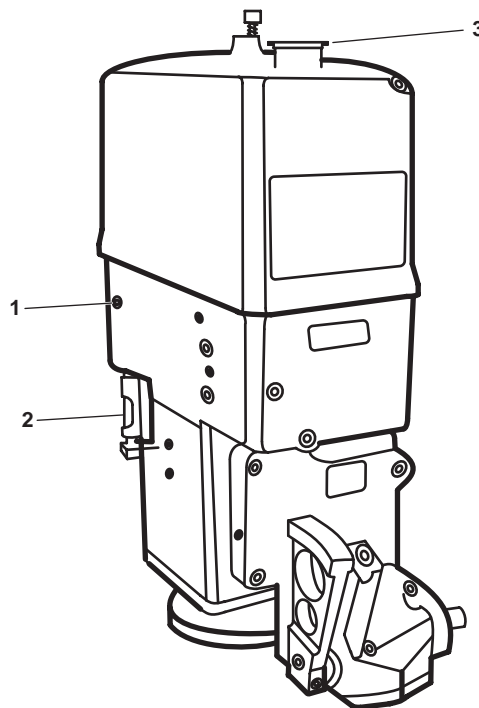


Figure 11. Governor

## ⚠ CAUTION

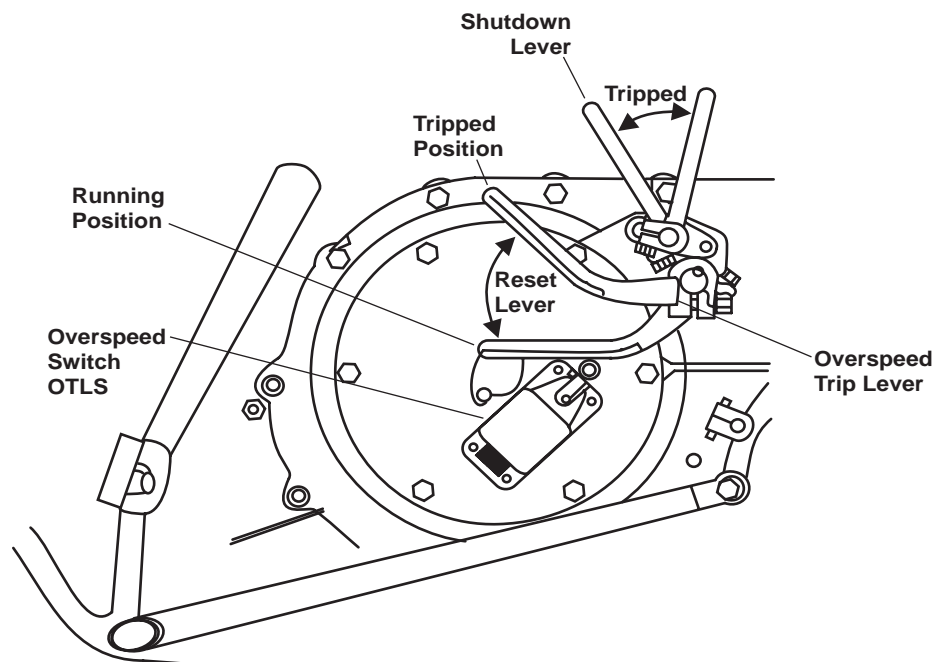
If there is any sign of water or oil being ejected at the cylinder test valves, or any indication of obstruction while rotating the engine, refer to unit maintenance. Do not attempt to start the engine until the problem has been corrected, or serious damage to the main engine could result.

- d. Check the starboard main engine test valves (figure 10, item 1) and air box blow down valves (figure 2, item 6) for the presence of oil and/or water. If no oil or water are detected, continue with this procedure. If oil or water are detected, notify the maintenance supervisor.
  - e. Shut all the test valves (figure 10, item 1).
23. Ensure that the starboard main engine overspeed trip lever (figure 12) is in the RUNNING (latched) position.
  24. Push IN the governor's alarm switch plunger (figure 11, item 1).
  25. Check that the governor oil level is at the mid-point in the sight glass (figure 11, item 2). If the oil level is low, add oil through the fill cap (figure 11, item 3). Refer to TM 55-1925-208-24 or the maintenance supervisor for the oil specification.

### NOTE

Removing the rear oil pan handhold cover is only necessary after an engine rebuild or a prolonged layup period.

26. Notify unit maintenance to remove the rear oil pan handhold cover, and confirm that lube oil is flowing from the gear train.
27. Replace/verify that all handhold and engine top deck covers are secure on the starboard main engine.



**Figure 12. Main Engine Overspeed Trip Lever**

28. Press the STOP pushbutton (figure 4, item 9) on the prelube pump motor controller.

**WARNING**

**High noise levels are present in the engine room and AMS 1 when the engines are operating. Hearing protection must be worn at all times when the engines are operating. Failure to comply can result in permanent loss of hearing.**

**NOTE**

The starboard main engine can also be started by pressing the MN ENG NO. 1 green pushbutton on EOS console.

29. Start the starboard main engine by pressing and holding the ENGINE START (figure 4, item 3) pushbutton until the engine starts.

**NOTE**

The engine should start within 10 seconds.

30. When the engine starts, release the ENGINE START pushbutton (figure 4, item 4).

**CAUTION**

If pressure is not indicated on the lube oil pressure gauge within 30 seconds after the main engine starts, stop the engine and determine the cause. Failure to comply could result in serious engine damage.

Do not increase engine speed above idle until the fresh water temperature gauge above the governor indicates at least 120 °F (49 °C). Failure to comply could result in serious engine damage.

Engine operation at less than 50% load increases turbocharger gear train wear and adds to maintenance requirements.

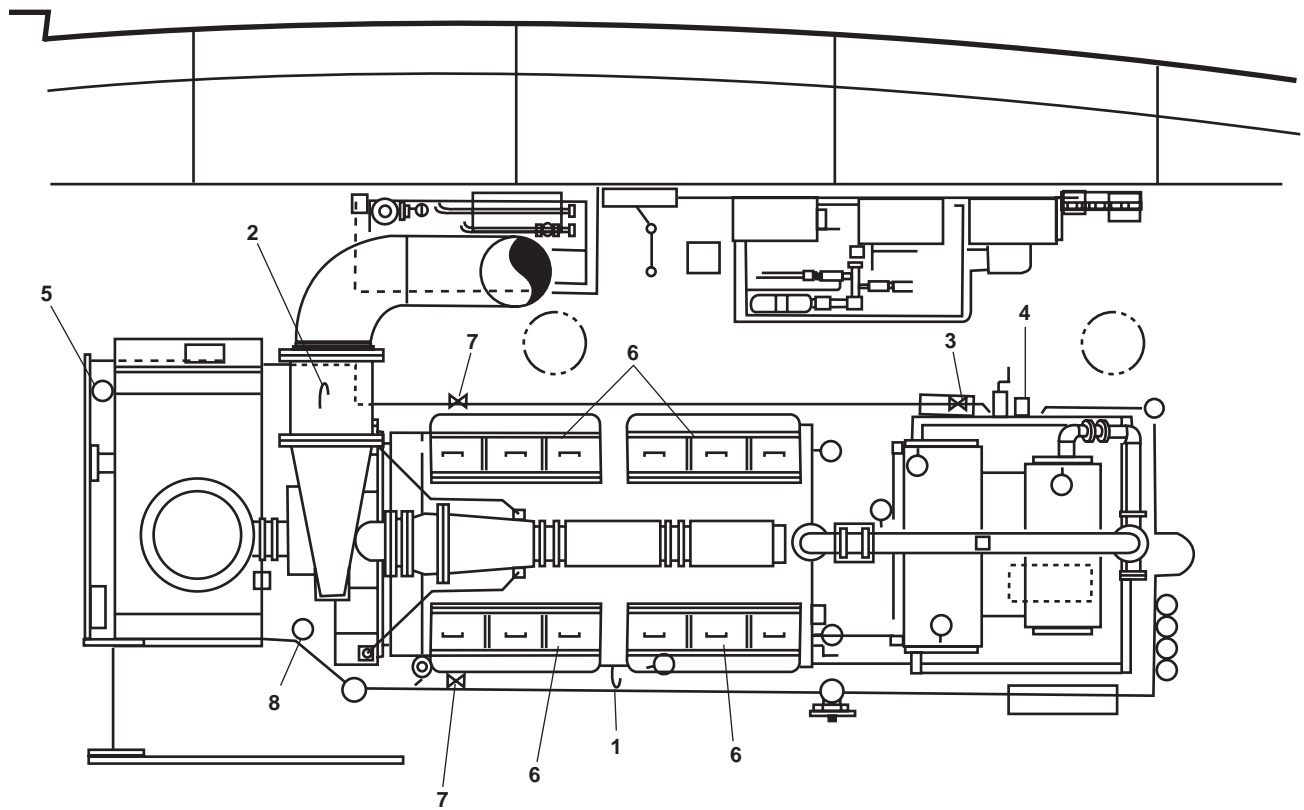
31. At the starboard main engine control panel, check the LUBE OIL pressure gauge (figure 4, item 10).

32. Check/verify the following conditions:

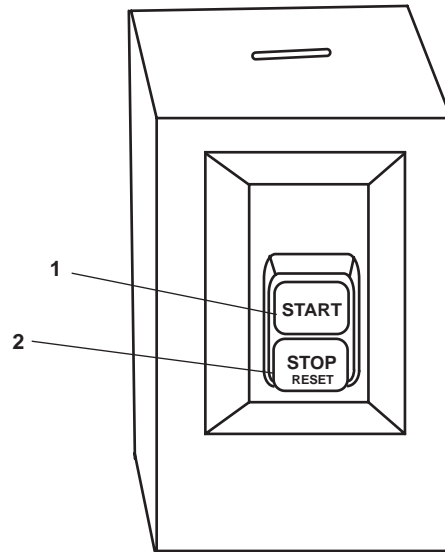
- a. Starboard reduction gear bearing oil pressure (figure 2, item 7) rises to approximately 32 PSI (2.2 bar) as soon as the engine starts.
- b. Starboard engine gauges and flow switch indicators are operating in the normal range.
- c. Engine coolant level in the starboard main engine coolant expansion tank sight glass (figure 1, item 1) is between LOW and FULL in the RUN range (figure 1, item 4). If the coolant is not between LOW and FULL, add coolant through the fill cap (figure 1, item 3) until the proper level is achieved. Proper engine coolant is a 50/50 mix of ethylene glycol antifreeze and water.
- d. Proper engine operating conditions are displayed on the machinery monitoring system.

**START THE PORT PROPULSION PLANT**

1. Ensure that the air compressors are online and that the starting air receivers are pressurized to 250 PSI (17.2 bar). If the compressors are not online or the starting air receivers are not charged, START the air compressors (TM 55-1925-286-13&P).
2. Check that the coolant level in the port main engine coolant expansion tank sight glass (figure 1, item 1) is between LOW and FULL in the STOP range (figure 1, item 2). If the coolant is not between LOW and FULL, add coolant through the fill cap (figure 1, item 3) until the proper level is achieved. Proper engine coolant is a 50/50 mix of ethylene glycol antifreeze and water.
3. Check that the port main engine oil is at the normal level on the dipstick (figure 13, item 1). If the engine oil level is low, add oil until the proper level is achieved. Refer to TM 55-1925-208-24 or maintenance supervisor for oil specification.
4. Check that the port reduction gear oil is at the normal level on the dipstick (figure 13, item 2). If the reduction oil is level low, add oil until the proper level is achieved. Refer to TM 55-1925-223-24&P or maintenance supervisor for oil specification.
5. At 440V power panel No. 1, set the following circuit breakers to ON:
  - a. FRESH WATER PUMP No. 2, (REDUCTION GEAR) (figure 3, item 4).
  - b. MAIN ENGINE LUBE OIL PRIMING PUMP No. 2. (figure 3, item 5).
  - c. MAIN ENGINE JACKET WATER HEATER No. 2/TURBO OIL PUMP No. 2./WATER LAY OVER PUMP No. 2. (figure 3, item 6).
6. Allow the main engine jacket water heater to run for at least 8 hours before continuing with this procedure.



**Figure 13. Port Main Engine and Reduction Gear**



**Figure 14. Port Main Engine Prelube Pump Motor Controller**

7. OPEN valve LO-48, C.O.V. PRELUBE PMP. DISCH. (figure 13, item 3).
8. At the prelube pump motor controller (figure 13, item 4), PUSH the START pushbutton (figure 14, item 1).
9. At 120V emergency distribution panel No. 1, ensure that the following circuit breakers are set to ON:

**NOTE**

If necessary to silence the fire alarm, obtain the key, unlock the fire and smoke alarm panel and press the ALARM SILENCE pushbutton (TM 55-1925-292-14&P).

- a. FIRE DETECTION SYSTEM. (figure 5, item 1).
  - b. E.O.T. SYSTEM. (figure 5, item 2).
  - c. MONITOR SYSTEM CIRCUIT. (figure 5, item 3).
  - d. REMOTE PROPULSION INDICATOR PANEL. (figure 5, item 4).
10. OPEN the following fuel system valves:
    - a. FO-19, F.O. SPLY TO PORT ME No. 2 (figure 6, item 11).
    - b. FO-14, F.O. SERV CRSVR (figure 6, item 2).
    - c. FO-13, F.O. SERV. SUCT. PORT (remote operator in the main deck fan room) (figure 6, item 12).
    - d. FO-33, F.O. RTN TO DAY TK. PORT (figure 6, item 13).
    - e. FO-34, F.O. RTN CRSVR (figure 6, item 5).
    - f. Four Racor fuel supply cutoff valves (figure 7, item 1) and four Racor fuel discharge cutoff valves (figure 7, item 2) located at the forward inboard corner of the engine.



11. OPEN the following coolant valves:
  - a. Fwc-4, F.W. FR. M.E. No. 2 TO KEEL CLR. (figure 6, item 14).
  - b. Fwc-2, F.W. FR. KEEL CLR TO M.E. No 2 (figure 6, item 15).
  - c. Fwc-14, F.W. FR. RED. GEAR No. 2 TO KEEL CLR (figure 6, item 16).
  - d. Fwc-16, F.W. FR. KEEL CLR TO RED. GEAR No. 2 (figure 6, item 17).
12. Start the reduction gear 2 fresh water cooling pump by performing the following actions at its motor controller (located on the engine room aft bulkhead):
  - a. Set the ON-OFF switch (figure 8, item 1) to the ON position.
  - b. Verify that the POWER AVAILABLE indicator (figure 8, item 2) is energized.
  - c. Press the START pushbutton (figure 8, item 3).
  - d. Verify that the MOTOR RUN indicator (figure 8, item 4) is energized.
13. Verify that the reduction gear 2 fresh water cooling pump discharge pressure gauge reads approximately 20 PSI (1.4 bar).
14. Verify that coolant is visible in the reduction gear 2 expansion tank sight glass. The sight glass is located on the aft end of the expansion tank, near the overhead, above reduction gear 1. If coolant is not visible, add coolant through the fill port. Refer to TM 55-1925-223-24&P or the maintenance supervisor for the reduction gear coolant specification.
15. OPEN valve CA-8, STG AIR TO ME #2 (figure 6, item 18).

**WARNING**

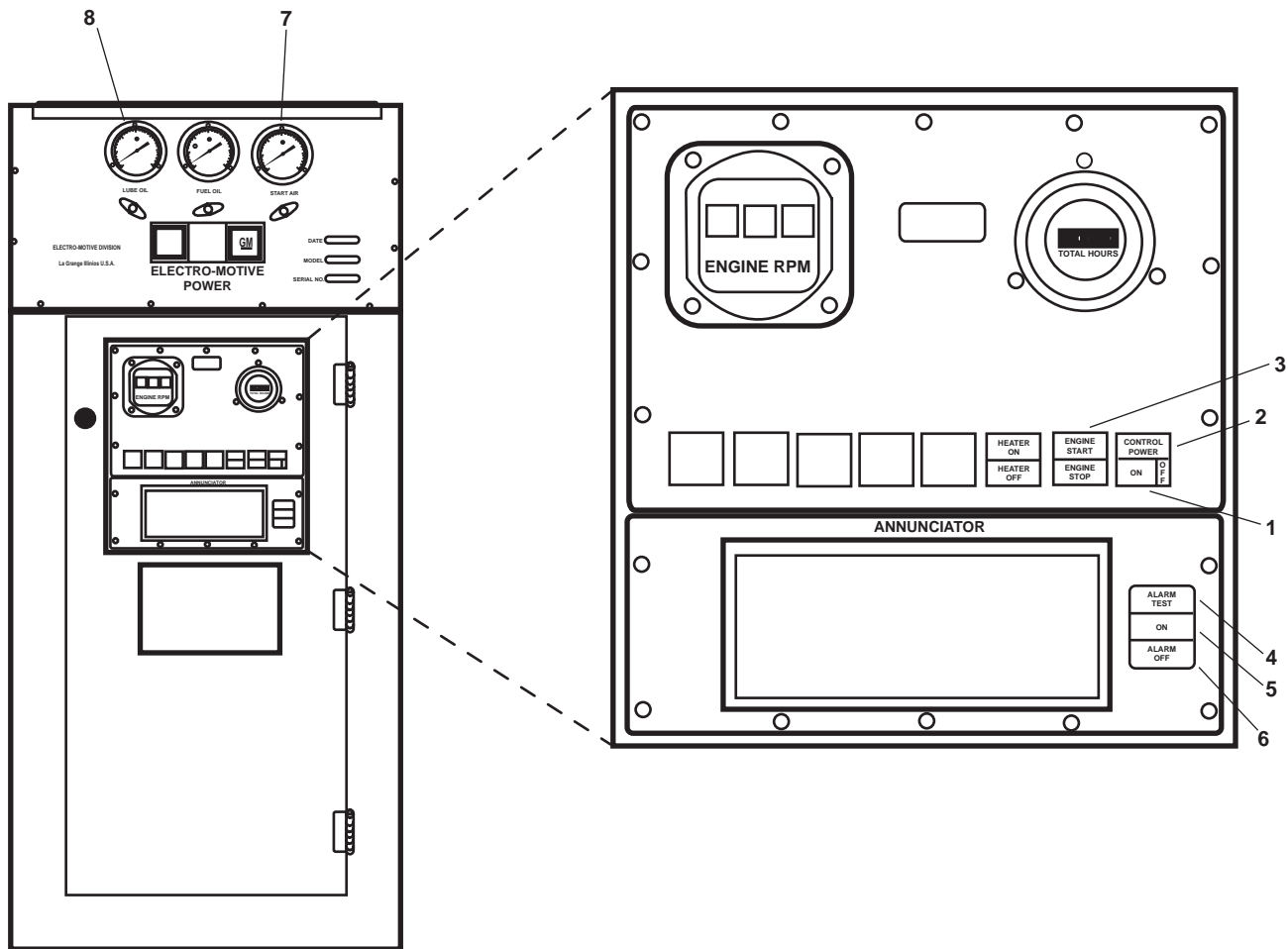
**Starting the main engine with the reduction gear engaged can result in injury or death to personnel.**

16. On the EOS console, place the COMMAND TRANSFER control (figure 9, item 1) in the EOS position.
17. On the EOS console, place the PORT MN ENG THROTTLE/CLUTCH lever (figure 9, item 4) in the NEUTRAL (straight UP) position.
18. At the port main engine control panel:
  - a. Press the ON pushbutton (figure 15, item 1) and verify that the CONTROL POWER indicator (figure 15, item 2) is illuminated.

**NOTE**

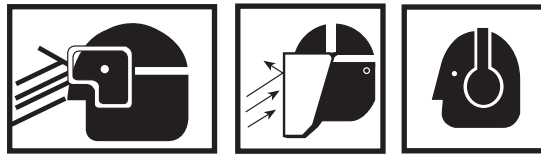
Main engine start normally includes a 60-second operation of the turbo lube oil pump prior to starting the engine. However, in an emergency, the engine may be started without delay.

- b. Momentarily press and release the ENGINE START pushbutton (figure 15, item 3) to start the turbocharger lube oil pump.



**Figure 15. Port Main Engine Control Panel**

- c. Verify that the ALARM TEST indicator (figure 15, item 4) is illuminated.
  - d. Verify that the power ON indicator (figure 15, item 5) is illuminated.
  - e. Verify that the ALARM OFF indicator (figure 15, item 6) is illuminated.
  - f. Verify that the START AIR pressure gauge (figure 15, item 7) indicates approximately 200 PSI (13.8 bar).
19. On the EOS console, verify that the CONTROL AIR PRESSURE gauge (figure 9, item 3) indicates approximately 125 PSI (8.6 bar).
  20. Ensure that the shaft brake pressure gauge (figure 13, item 5) indicates 1200 to 1500 PSI (82.7-103.4 bar).
  21. Open the engine top deck covers (figure 13, item 6) and check that the valve train is receiving adequate flow from the prelube pump. If the flow is adequate, close the engine top deck covers. If the flow is inadequate, notify unit maintenance.
  22. Blow down the port main engine by performing the following steps:
    - a. Open the test valves (figure 10, item 1) on both sides of the port main engine, approximately ½ inch.

**WARNING**

**Use eye protection when checking test valves. Failure to comply could result in severe eye damage, blindness, or death.**

**Do not permit personnel to stand between or outboard of the engines during blowdown. Failure to comply can result in injury or death.**

**High noise levels are present in the engine room and AMS 1 when the engines are operating. Hearing protection must be worn at all times when the engines are operating. Failure to comply can result in permanent loss of hearing.**

- b. Pull OUT on the governor's alarm switch plunger (figure 11, item 1) to prevent the engine from starting unexpectedly.
- c. Press and hold the ENGINE START pushbutton (figure 15, item 3) to crank the engine for 1-2 complete revolutions. Release the ENGINE START pushbutton when finished cranking.

**⚠ CAUTION**

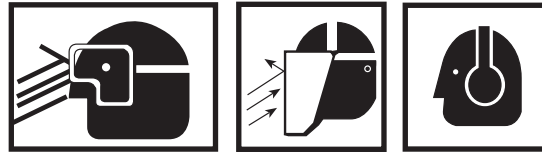
If there is any sign of water or oil being ejected at the cylinder test valves, or any indication of obstruction while rotating the engine, refer to unit maintenance. Do not attempt to start the engine until the problem has been corrected, or serious damage to the main engine could result.

- d. Check the port main engine test valves (figure 10, item 1) and air box blow down valves (figure 13, item 6) for the presence of oil and/or water. If no oil or water are detected, continue with this procedure. If oil or water are detected, notify the maintenance supervisor.
  - e. Shut all the test valves (figure 10, item 1).
23. Ensure that the port main engine overspeed trip lever (figure 12) is in the RUNNING (latched) position.
  24. Push IN the governor's alarm switch plunger (figure 11, item 1).
  25. Check that the governor oil level is at the mid-point in the sight glass (figure 11, item 2). If the oil level is low, add oil through the fill cap (figure 11, item 3). Refer to TM 55-1925-208-24 or the maintenance supervisor for the oil specification.

**NOTE**

Removing the rear oil pan handhold cover is only necessary after an engine rebuild or a prolonged layup period.

26. Notify unit maintenance to remove the rear oil pan handhold cover, and confirm that lube oil is flowing from the gear train.
27. Replace/verify that all handhold and engine top deck covers are secure on the port main engine.

**WARNING**

**High noise levels are present in the engine room and AMS 1 when the engines are operating. Hearing protection must be worn at all times when the engines are operating. Failure to comply can result in permanent loss of hearing.**

**NOTE**

The port main engine can also be started by pressing the MN ENG NO. 2 green pushbutton on EOS console.

28. Press the STOP pushbutton (figure 14, item 2) on the prelube pump motor controller.
29. Start the port main engine by pressing and holding the ENGINE START (figure 15, item 3) pushbutton until the engine starts.

**NOTE**

The engine should start within 10 seconds.

30. When the engine starts, release the ENGINE START pushbutton (figure 15, item 3).

**⚠ CAUTION**

If pressure is not indicated on the lube oil pressure gauge within 30 seconds after the main engine starts, stop the engine and determine the cause. Failure to comply could result in serious engine damage.

Do not increase engine speed above idle until the fresh water temperature gauge above the governor indicates at least 120 °F (49 °C). Failure to comply could result in serious engine damage.

Engine operation at less than 50% load increases turbocharger gear train wear and adds to maintenance requirements.

31. At the port main engine control panel, check the LUBE OIL pressure gauge (figure 15, item 8).
32. Check/verify the following conditions:
  - a. Port reduction gear bearing oil pressure (figure 13, item 7) rises to approximately 32 PSI (2.2 bar) as soon as the engine starts.
  - b. Port engine gauges and flow switch indicators are operating in the normal range.
  - c. Engine coolant level in the port main engine coolant expansion tank sight glass (figure 1, item 1) is between LOW and FULL in the RUN range (figure 1, item 4). If the coolant is not between LOW and FULL, add coolant through the fill cap (figure 1, item 3) until the proper level is achieved. Proper engine coolant is a 50/50 mix of ethylene glycol antifreeze and water.
  - d. Proper engine operating conditions are displayed on the machinery monitoring system.

**END OF WORK PACKAGE**

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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
STEERING SYSTEM FAILURE**

---

**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L  
One Watercraft Operator, 88K

**References:**

WP 0077 00 (volume 1)

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**GENERAL**

Emergency steering may be accomplished with:

1. Hand-hydraulic steering.
2. Manual power hydraulic steering.

**PERFORM HAND-HYDRAULIC STEERING**

When power is lost at the steering hydraulic power pack, hand-hydraulic steering is used. For hand-hydraulic steering, use the following procedures:

1. OPEN the following valves:
  - a. SH-7, HAND PMP C.O.V. (figure 1, item 1).
  - b. SH-8, HAND PMP C.O.V. (figure 1, item 2).
2. Secure both steering pumps by placing each steering gear motor controller selector switch (figure 2, item 1) in the STOP position.

**NOTE**

Vessel heading is indicated on the bulkhead mounted compass repeater. Use the sound powered telephone headset to communicate with the pilothouse for course changes.

3. Steer the vessel using the following procedure:

**NOTE**

Two crewmembers are required for this operation.

- a. If rudder movement to LEFT is required:
  - (1) One crewmember rotates the handwheel (figure 1, item 3) to provide hydraulic pressure and flow to the steering gear.
  - (2) When the desired rudder angle is attained, stop rotating the hand wheel.
- b. If rudder movement to RIGHT is required, repeat steps 3a (1-2).

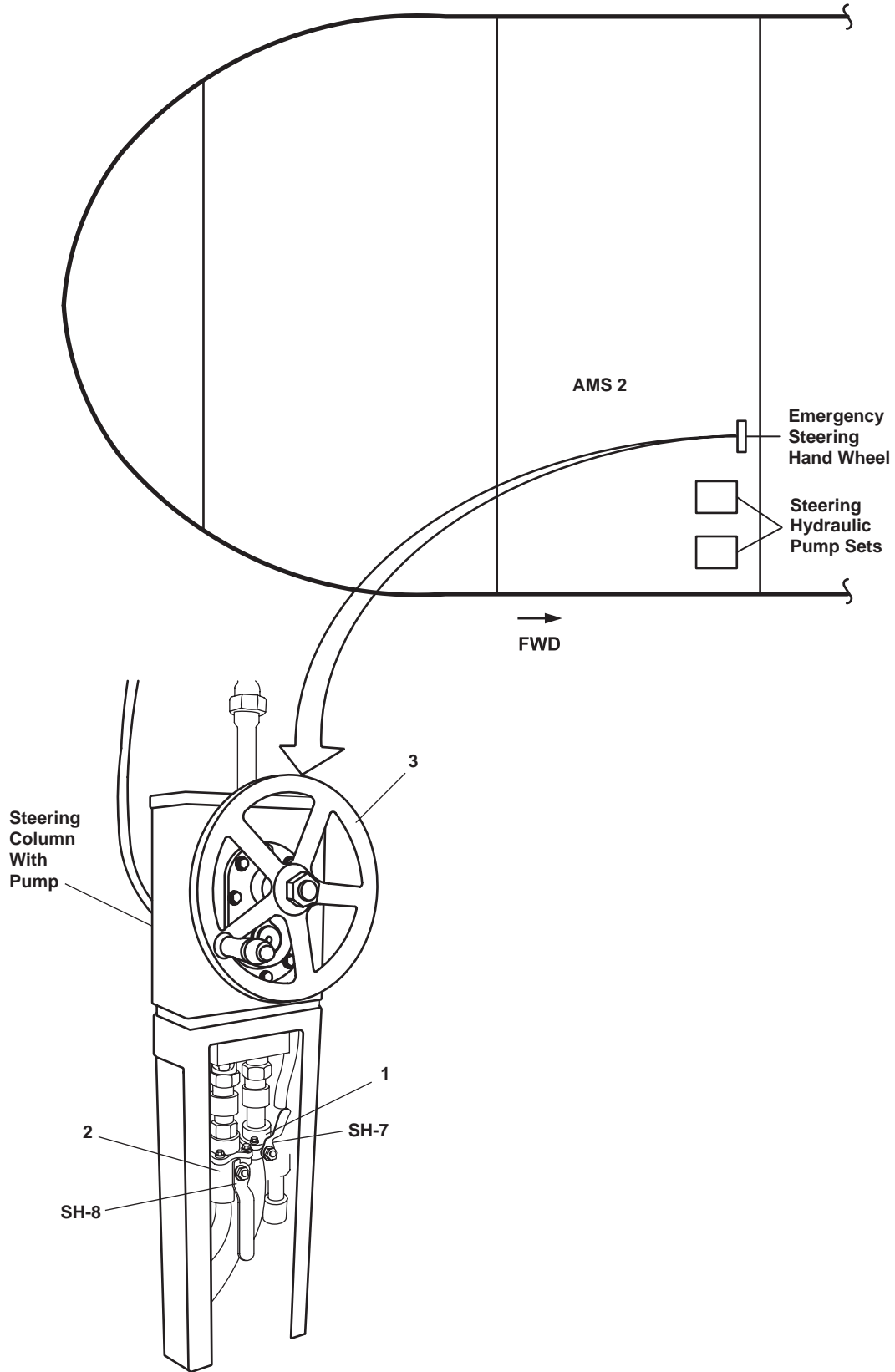
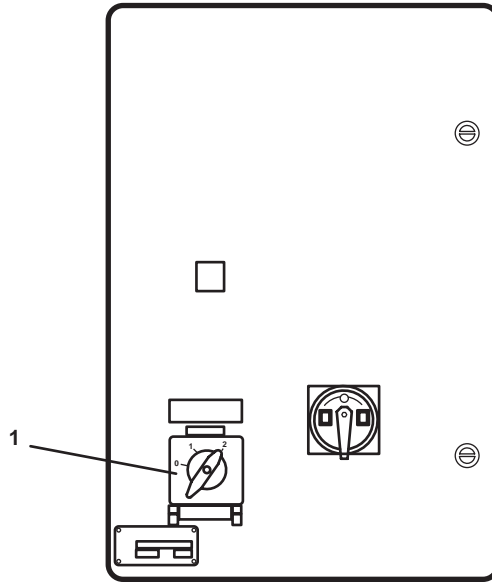


Figure 1. Hand Pump Isolation Valves

## SECURE HAND-HYDRAULIC STEERING

Once the malfunction is repaired, the steering system can return to normal operation.

1. CLOSE the following valves:
  - a. SH-7, HAND PMP C.O.V. (figure 1, item 1)
  - b. SH-8, HAND PMP C.O.V. (figure 1, item 2)



**Figure 2. Steering Gear Motor Controller**

## PERFORM MANUAL POWER-HYDRAULIC STEERING

Manual power hydraulic steering mode is used when a malfunction results in loss of control in the pilothouse, but power is still available at the steering hydraulic power pack Auxiliary Machinery Space (AMS) 2.

### NOTE

No change to valve alignment is necessary for this steering method.

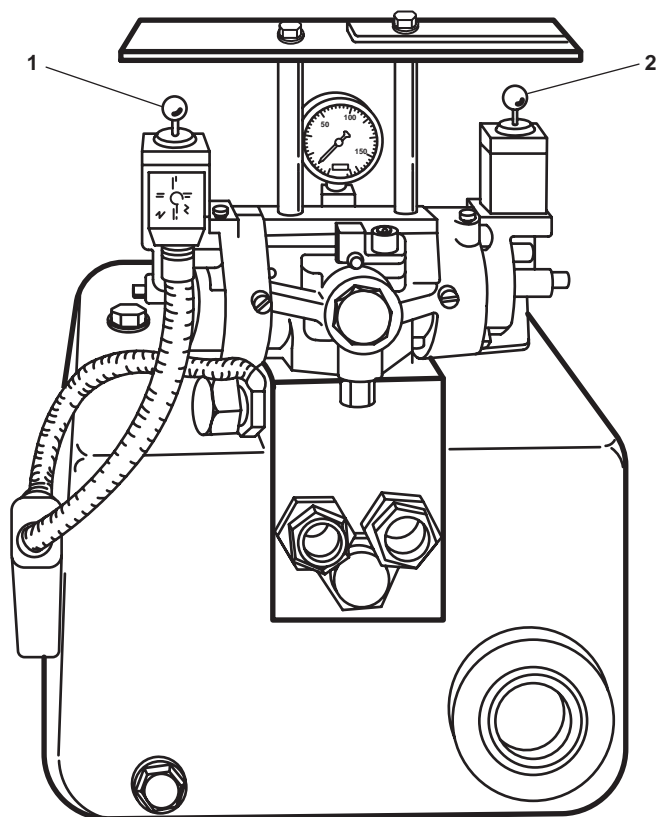
1. On the steering gear motor controller, set the change-over switch (figure 2, item 1) to LOCAL CONTROL position 3.

### NOTE

There are two power packs, one for each rudder.

The vessel heading is indicated on the bulkhead mounted compass repeater. Use the sound-powered telephone headset to communicate with the pilothouse for course changes.

2. Steer the vessel, using the following procedure:
  - a. Adjust the course to LEFT by pressing down on the port control valve handle (figure 3, item 1) on each power pack.
  - b. Adjust the course to RIGHT by pressing down on the starboard control valve handle (figure 3, item 2) on each power pack.



**Figure 3. Rudder Power Packs**

### **SECURE MANUAL POWER-HYDRAULIC STEERING**

Once the malfunction is repaired, perform the following:

1. On the steering gear motor controller, set the change-over switch (figure 2, item 1) to REMOTE CONTROL position 1.
2. Operate the steering system under usual conditions (WP 0077 00, volume 1).
3. Return the equipment to the desired readiness condition.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
POWER GENERATION**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

**References:**

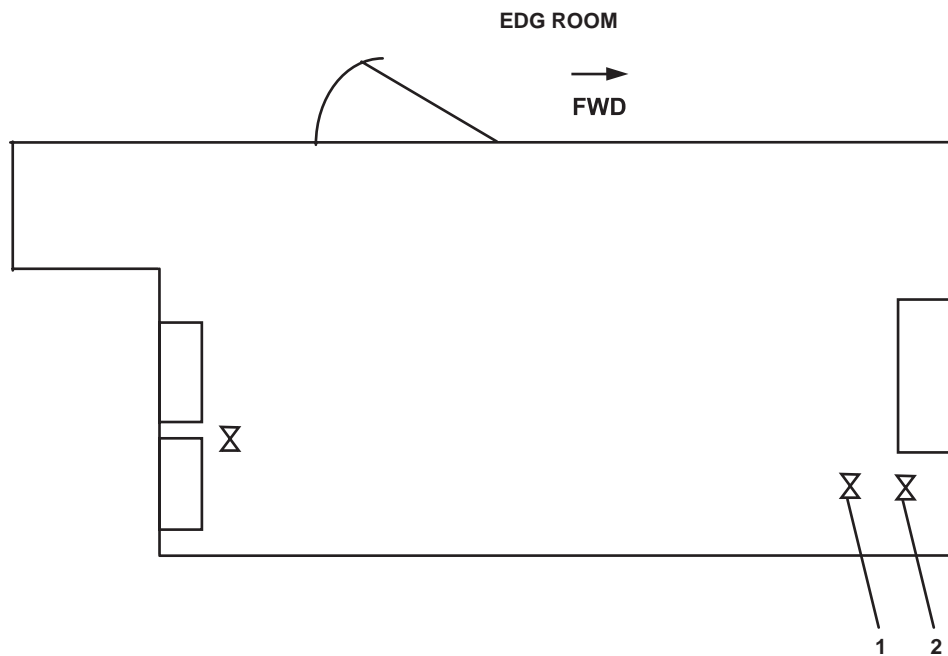
WP 0069 00 (volume 1)

**ALIGNMENT FOR EMERGENCY DIESEL GENERATOR (EDG) AUTO START**

1. OPEN fuel valves FO-32, F.O. SPLY TO ENG (figure 1, item 1) and FO-12, E.D.G. DAY TK FILL (figure 1, item 2).
2. At the emergency switchboard, set ENG. CONTROL SW. (figure 2, item 1) to AUTO.
3. At the emergency diesel generator control panel:
  - a. Turn the START/STOP switch (figure 3, item 1) clockwise to release the pushbutton to OUT.
  - b. Set the RESET control switch (figure 3, item 2) to AUTO START.

**ALIGNMENT FOR EDG MANUAL START**

1. To line up the fuel system to allow the engine to take suction from and return to the EDG day tank, OPEN valves FO-32, F.O. SPLY TO ENG (figure 1, item 1) and FO-12, E.D.G. DAY TK FILL (figure 1, item 2).
2. Prime the fuel oil system on the engine. If necessary, use the engine mounted hand pump.

**Figure 1. EDG Fuel Valves**

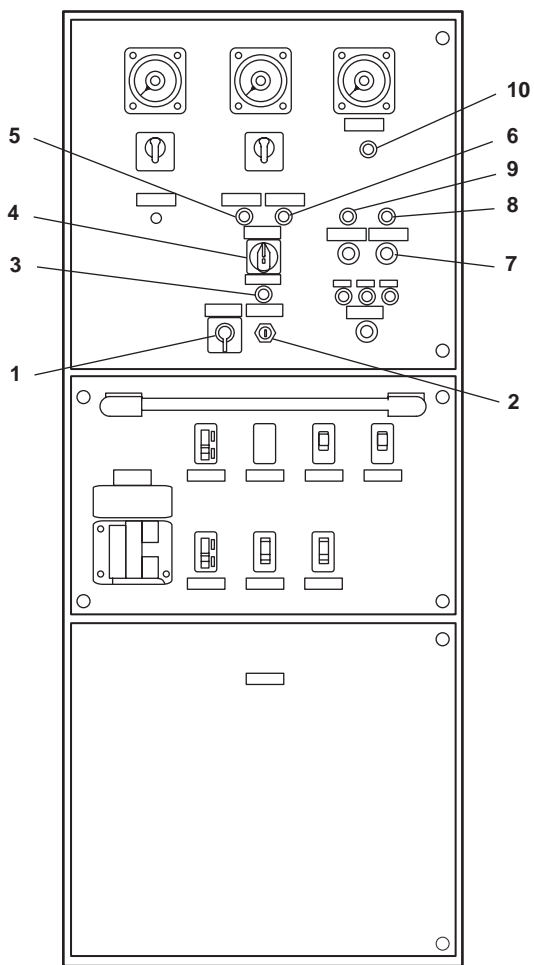


Figure 2. Emergency Switchboard

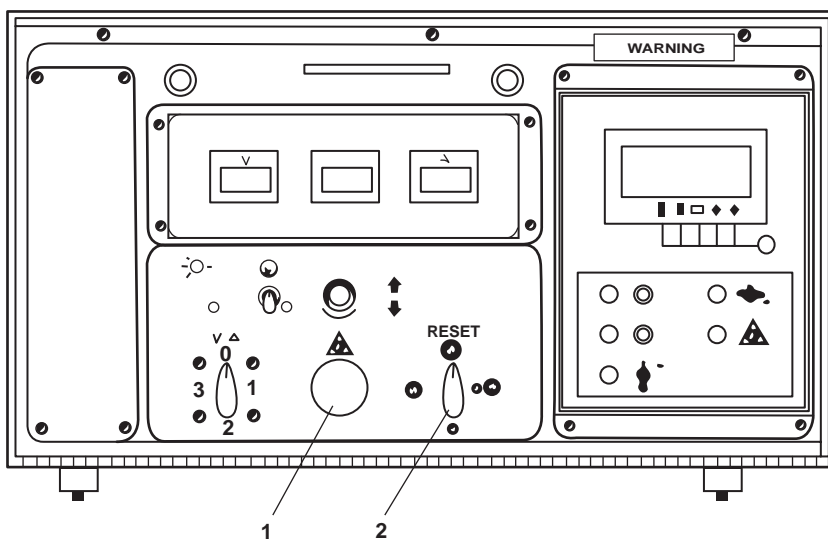


Figure 3. Emergency Generator Control Panel

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**NOTE**

Either battery bank 1 or 2 may be used to start the EDG. Both battery banks are continuously charged.

3. Set the emergency switchboard engine control switch (figure 2, item 1) to HAND.
4. On the EDG control panel, release EMERGENCY STOP (figure 3, item 1) and turn the RESET control switch (figure 3, item 2) to RESET.
5. Start the engine by turning the engine control switch (figure 2, item 1) to ENGINE START.

**OPERATE MAIN SWITCHBOARD ON EMERGENCY POWER** **CAUTION**

Emergency power is only 65 kW compared to 275 kW normal power. Extreme care must be taken to prevent overloading the emergency generator. Overloading seriously damages the generator.

1. Set all main switchboard circuit breakers to OFF.
2. Insert the key into BUS TIE BKR FEEDBACK SW (figure 2, item 2) and set the switch to FEEDBACK. The BUS TIE BKR SET FOR FEEDBACK indicator (figure 2, item 3) will illuminate.

**SECURE FROM EMERGENCY POWER GENERATION**

When the Ship's Service Diesel Generator(s) (SSDG) are returned to normal operation, proceed as follows:

1. Insert the key into BUS TIE BKR FEEDBACK SW (figure 2, item 2) and set to NORMAL position. The BUS TIE BKR SET FOR FEEDBACK indicator (figure 2, item 3) will go out.
2. Bring the selected SSDG online (WP 0069 00, volume 1).
3. At the emergency switchboard:
  - a. Set the EMG GENERATOR CIRCUIT BREAKER (figure 2, item 4) to OPEN. The EMG GENERATOR CIRCUIT BREAKER OPEN indicator (figure 2, item 5) illuminates and the EMG GENERATOR CIRCUIT BREAKER CLOSED indicator (figure 2, item 6) goes out.
  - b. Set the ENG. CONTROL SW. switch (figure 2, item 1) to HAND.
  - c. Press the MAIN SWBD BUS TIE CIRCUIT BREAKER CLOSED pushbutton (figure 2, item 7). The CLOSED indicator (figure 2, item 8) will light. Verify that the OPEN indicator (figure 2, item 9) goes out.

 **CAUTION**

Allow the generator set to operate at no load for 5 minutes to cool down. Damage to the engine will result if not properly cooled down.

- d. Set the ENG. CONTROL SW. (figure 2, item 1) to OFF. The EMG GENERATOR POWER AVAILABLE indicator (figure 2, item 10) will go out.
- e. After the engine stops, set the ENG. CONTROL SW. (figure 2, item 1) to AUTO.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
RIGGING THE LT TO BE TOWED**

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Refer to the U.S. Army Towing Manual TM 55-1900-232-10 to rig the Large Tug (LT) to be towed. Receive specific towing instructions from the towing vessel master.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
HEAVY WEATHER PREPARATIONS**

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**INITIAL SETUP:****Personnel Required:**

Two Crewmembers, Any MOS

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**WARNING**

**Unexpected roll or pitch of the vessel can cause personnel to fall against electrical circuits, rotating machinery, or hot surfaces. Failure to exercise extreme caution can result in serious injury or death.**

**SECURE WEATHER DECKS**

1. Tie down the workboat.
2. Secure the crane's boom and cable.
3. Secure all lines, hoses, and loose equipment.
4. Secure and cover all vents, electrical outlets, and call boxes.
5. Secure and dog all doors and hatches.
6. Rig storm lines if any work is to be performed on the weather decks during heavy weather.

**SECURE PILOTHOUSE**

1. Secure all microphones or headsets in their holders.
2. Secure pencils, rulers, compasses, binoculars, and azimuth circle on the chart table.
3. Secure the coffee pot and tie down all chairs to desk or table legs.

**SECURE LIVING SPACES AND MESS DECK**

1. Secure all pots, cups, dishes, and silverware in the dining area.
2. Strap chairs to the deck.
3. Secure any loose personal gear in the berthing spaces.

**SECURE GALLEY**

1. Stop all food preparation that presents a hazard. Do not use hot oil in a fryer, and do not use steam, boiling water or hot liquids on the stove. Secure power to all unnecessary food preparation equipment. Do not turn off cold storage equipment.
2. Secure all pots, pans, cooking utensils, and the coffee maker.
3. Secure any remaining loose items in the galley.

**SECURE ENGINE AND MACHINERY SPACES**

1. Secure all loose items, equipment, and tools.
2. Stop all non-essential maintenance. If maintenance work is absolutely essential, personnel must work in pairs.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
LAUNCH AND RETRIEVE WORKBOAT IN HEAVY WEATHER**

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**INITIAL SETUP:****Personnel Required:**

Two Watercraft Operators, 88K

**References:**

WP 0086 00 (volume 1)

**WARNING**

**All personnel working on the weather deck in heavy weather must wear life jackets to prevent drowning in the event of falling overboard.**

**LAUNCH AND RETRIEVE WORKBOAT IN HEAVY WEATHER**

Operations to launch and retrieve the workboat in heavy weather follow the same procedures as provided in WP 0086 00 (volume 1), except that the port side of vessel must be leeward before launching or retrieving the workboat.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
TOWING MACHINE UNUSUAL OPERATION**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Operator, 88K  
One Watercraft Engineer, 88L

**References:**

TM 55-1900-232-10  
WP 0039 00 (volume 1)  
WP 0095 00 (volume 1)

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**TOWING MACHINE TOWING ON THE MECHANICAL DOG**

1. Prepare the towing machine for operation under usual conditions (WP 0039 00, volume 1) and rig the tow (WP 0095 00, volume 1), including establishing the desired scope (TM 55-1900-232-10).

 **CAUTION**

Never engage the mechanical dog while a drum is rotating in the payout direction. Doing so will damage the mechanical dog and the towing machine.

**NOTE**

The operator must observe the tow at all times while towing on the mechanical dog. All emergency release features of the machine are disabled when the mechanical dog is engaged. In order to pay- out or pull in, the towing machine must first be set to HEAVE mode and the mechanical dog disengaged.

2. Remove the quick release pin (figure 1, item 1).
3. Engage the mechanical dog (figure 1, item 2) in the ratchet teeth (figure 1, item 3).
4. Secure the towing machine and the towing machine hydraulic system (WP 0039 00, volume 1).
5. Loosen the clutch brake handwheel (figure 2, item 1) slowly until the drum turns slightly and all of the load is transferred to the mechanical dog.
6. Tighten the clutch brake handwheel (figure 2, item 1).
7. Install the quick release pin (figure 1, item 1).

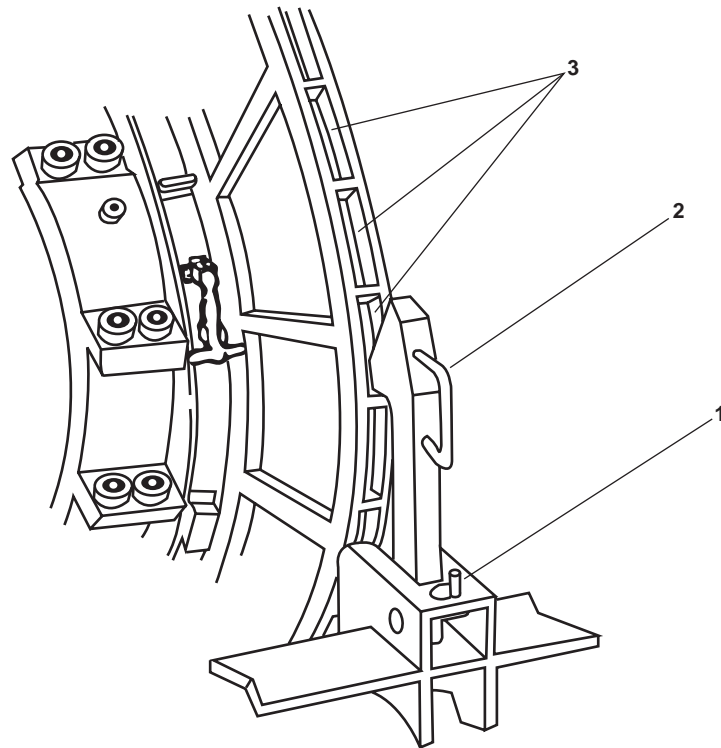


Figure 1. Mechanical Dog Operation

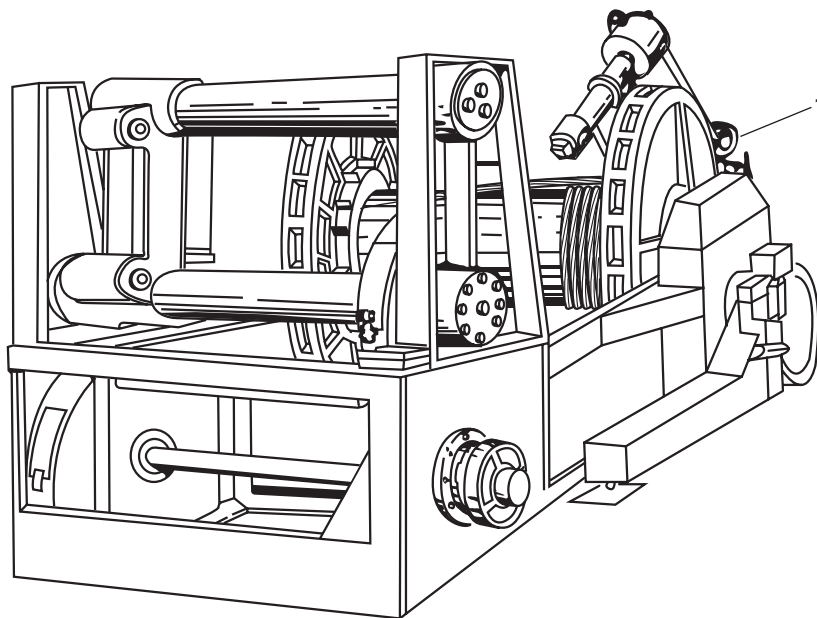


Figure 2. Towing Machine

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**TOWING MACHINE EMERGENCY RELEASE OF TOWLINE****WARNING**

**Should the LT "get in irons" or find that the tow must be released, the clutch brake can be released and the towline allowed to pull off the drum. The bitter end is designed to pull loose at approximately 15,000 lbs (6,803 kg) of pull. Ensure that all personnel are cleared from the fantail to avoid line whip as it pulls off. Serious personal injury or death could result.**

1. Clear all unnecessary personnel from the fantail.
2. Ensure that the mechanical dog (figure 1, item 2) is not engaged.
3. One crewmember releases the clutch brake handwheel (figure 2, item 1) and immediately leaves the area.
4. Allow the wire rope to be pulled off the drum.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
TOWING MACHINE OPERATION POWERED BY CENTRAL HYDRAULICS**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

**References:**

WP 0089 00 (volume 1)

WP 0102 00 (volume 1)

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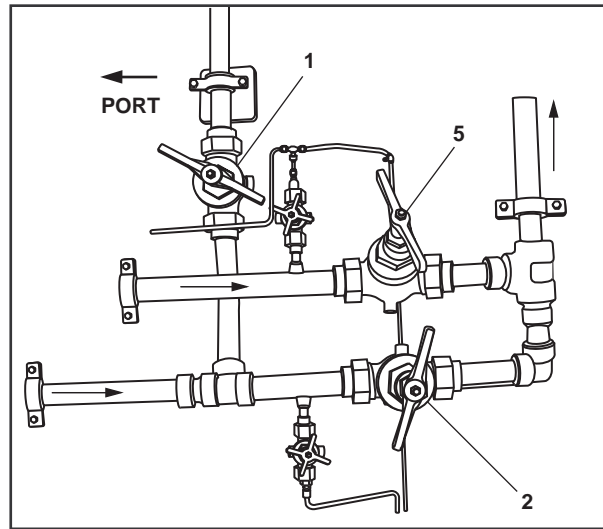
**TOWING MACHINE POWERED BY CENTRAL HYDRAULIC SYSTEM**

1. Check the towing machine to ensure that all controls are disengaged.
2. OPEN the following valves in AMS 1:
  - a. TH-2, PRESS CRSVR. CTL HYDR TOW WN HYDR (figure 1, item 1)
  - b. TH-1, C.O.V.-PMP DISCH. TO TOW WN. HYD (figure 1, item 2)
  - c. TH-4, DRAIN CRSVR. TO CENT. HYD. (figure 1, item 3)
  - d. TH-3, RETURN CRSVR. TO CENT. HYD (figure 1, item 4)
3. CLOSE the following valves in AMS 1:
  - a. TH-14, FLOW CONTROL (figure 1, item 5)
  - b. CH-26, DRN CUT-OUT TOW WN HYDR (figure 1, item 6)
  - c. CH-27, RTN CUT-OUT TOW WN HYDR (figure 1, item 7)
4. Set to ON the CENT HYD SYS PWR UNIT NO. 1 & 2 circuit breaker (figure 2, item 1) on the main switchboard.
5. At the central hydraulic system control panel, set the MAIN switch (figure 3, item 1) to ON.
6. To enable local operation of the central hydraulic system Hydraulic Power Unit (HPU) from the local control panel (figure 3, item 2), set to ON the REMOTE/OFF/ON switch (figure 6, item 3). To enable remote operation from the EOS, set the REMOTE/OFF/ON switch to REMOTE.

 **CAUTION**

The reservoir temperature must be checked frequently. If oil temperature exceeds 180 °F (82 °C), or a low oil level is indicated, shut down the system immediately. Operating the pumps with hot and/or low oil could damage the equipment.

7. Set the P1/P2/P1 & 2 switch (figure 3, item 4) to the P1 & P2 position. Operation of both pumps is required to properly support towing machine operations.
8. At the central hydraulic control panel, verify that the READY lights (figure 3, items 5 and 6) are illuminated for both pumps.
9. If local operation was selected in step 6, press the START pushbutton (figure 3, item 7) on the central hydraulic control panel to start the pumps. If remote operation was selected, press the NO. 1 & 2 HYD PMP pushbutton (figure 4, item 1) to start the selected pump(s).



ON FORWARD BULKHEAD

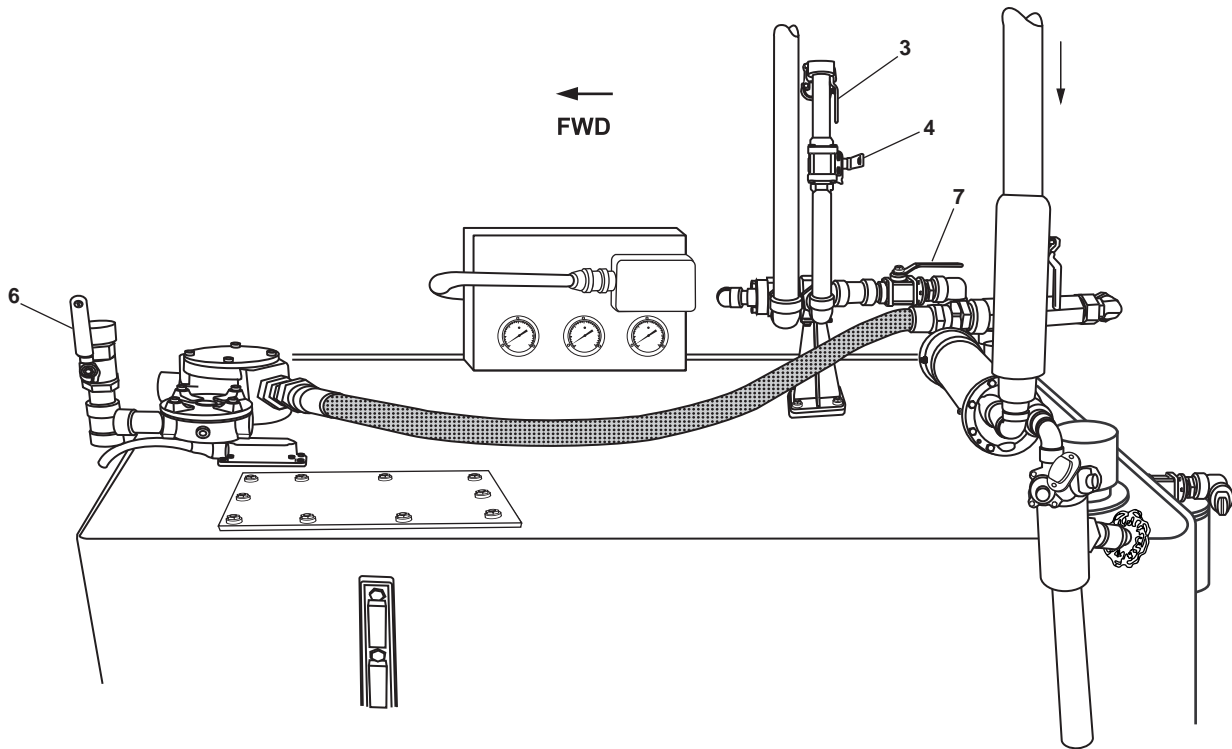
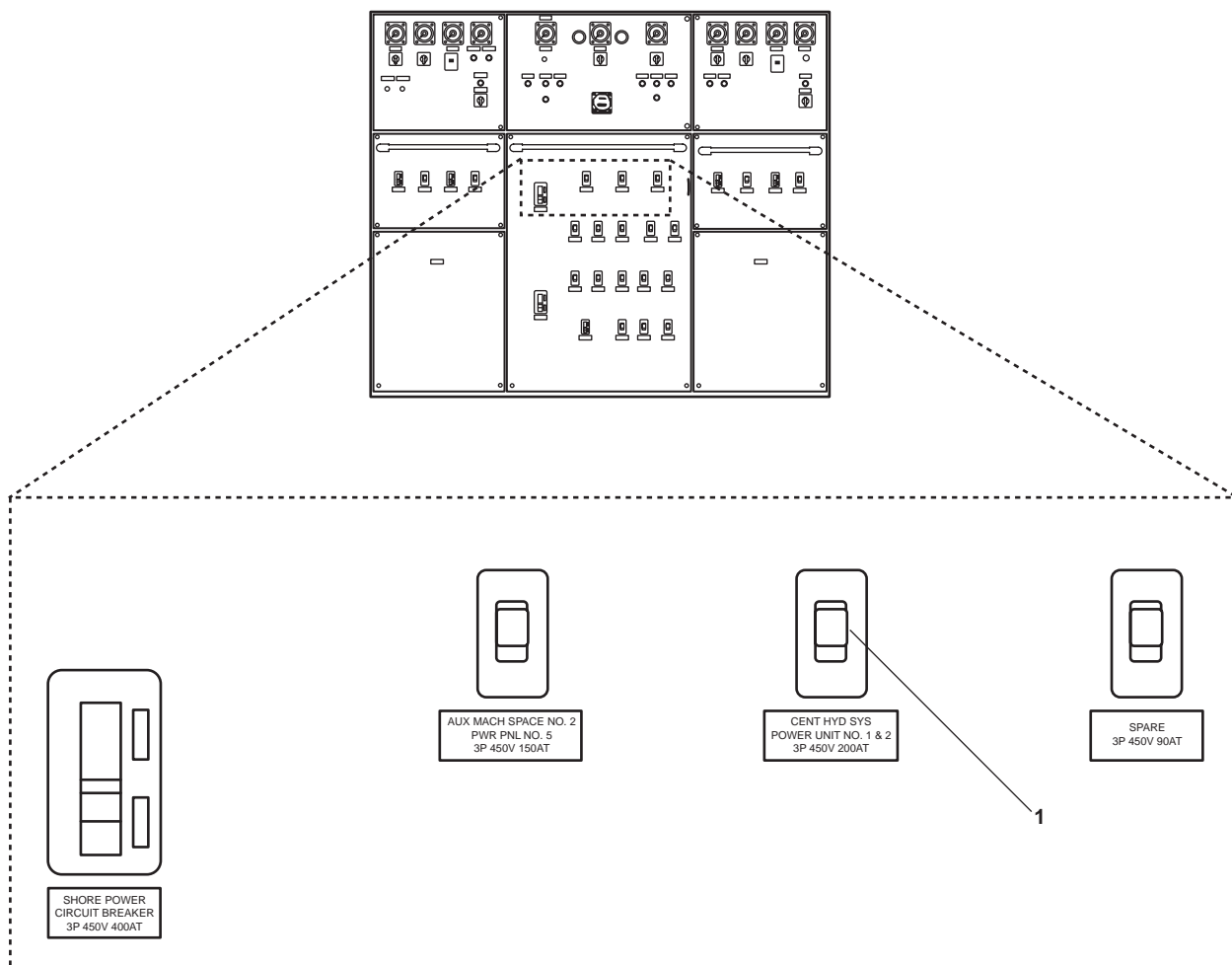


Figure 1. Towing Machine Hydraulic System Valves





**Figure 2. Main Switchboard**

10. Verify that the RUNNING indicators (figure 3, items 8 and 9) illuminate for both pumps on the central hydraulic system control panel.
11. The central hydraulic system is now ready to power the towing machine. Operate the towing machine (WP 0089 00, volume 1).
12. When operation is complete, secure the central hydraulic system (WP 0102 00, volume 1).

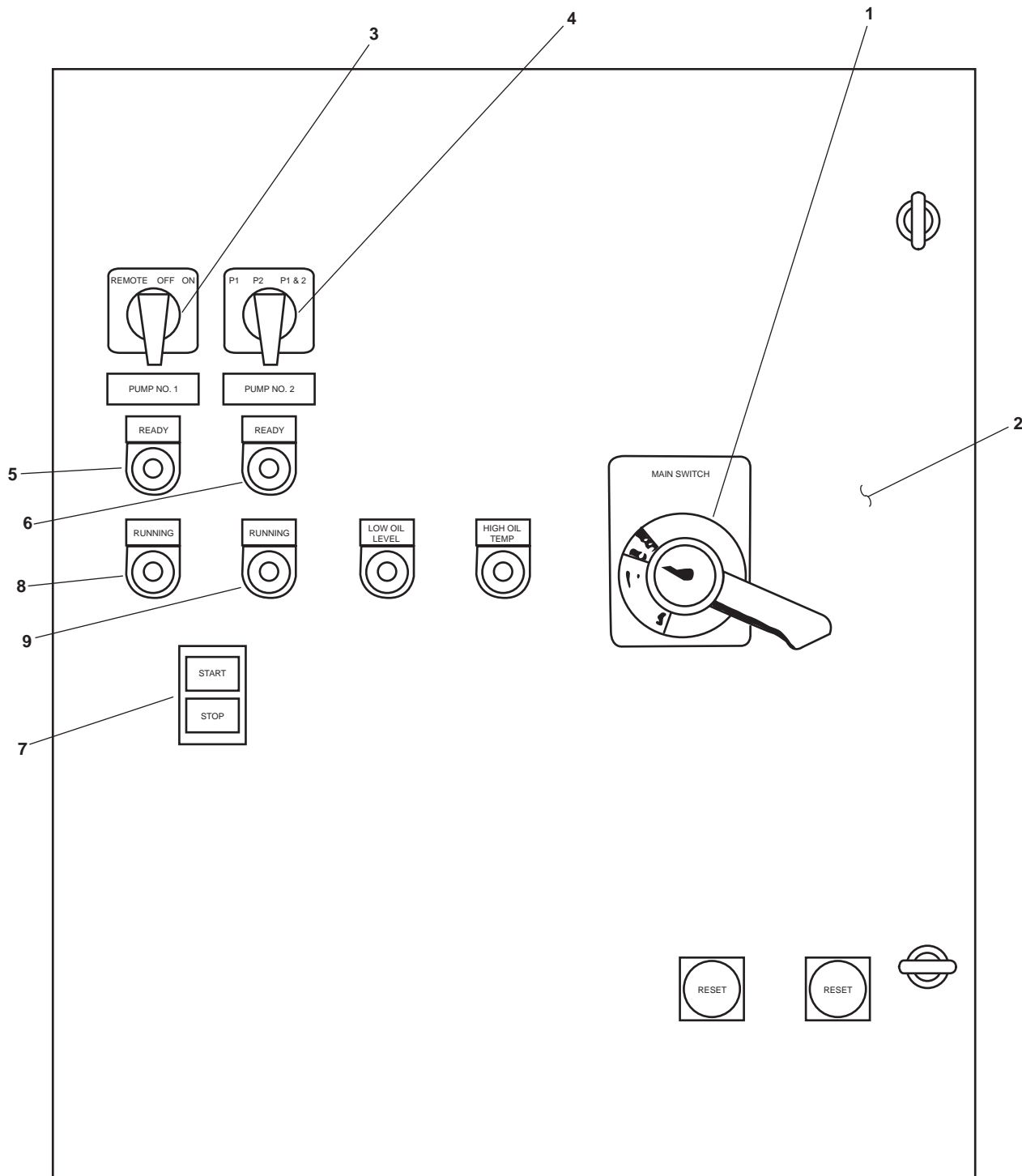


Figure 3. Central Hydraulic System Control Panel

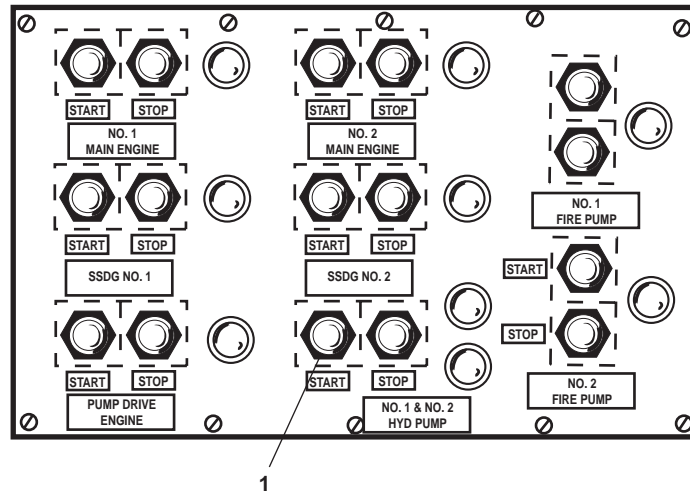


Figure 4. EOS Engine Control Console

END OF WORK PACKAGE



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
SHIP STORES REFRIGERATION SPLIT PLANT OPERATION**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L

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**GENERAL**

Should the ship stores refrigeration unit fail, split plant operation provides temporary power to maintain appropriate refrigeration temperatures. The following procedures provide for shifting to the standby condenser and for pulldown (both condensers on line) operation.

**SHIFT TO STANDBY CONDENSING UNIT**

Perform the following procedures to operate the refrigeration by shifting to the standby condensing unit.

**ALIGN ELECTRICAL SYSTEM**

1. At the refrigerator condenser unit, ensure that the main power disconnect switch (figure 1, item 1) is ON.
2. At the 440V power panel No. 5, verify that the following circuit breakers are ON:
  - a. STORES REFRIGERATION PLANT No. 1./FREEZE BOX DEFROST HEATER. (figure 2, item 1).
  - b. STORES REFRIGERATION PLANT No. 2. (figure 2, item 2).

 **CAUTION**

Align the condenser cooling water piping system before starting the refrigeration plant. Damage to the plant can occur.

**START STANDBY REFRIGERATION PLANT 1**

Align the condenser cooling water piping system according to the following procedures:

1. OPEN GS-34 A/C COND No. 2 SPLY (figure 3, item 1) or GS-33 A/C COND No. 1 SPLY (figure 3, item 2).
2. OPEN GS-36 WTR RGLTR COV (figure 3, item 3) or GS-37 WTR RGLTR COV (figure 3, item 4).
3. CLOSE GS-72 BYP WTR RGLTR (figure 3, item 5) or GS-83 BYP WTR RGLTR (figure 3, item 6).

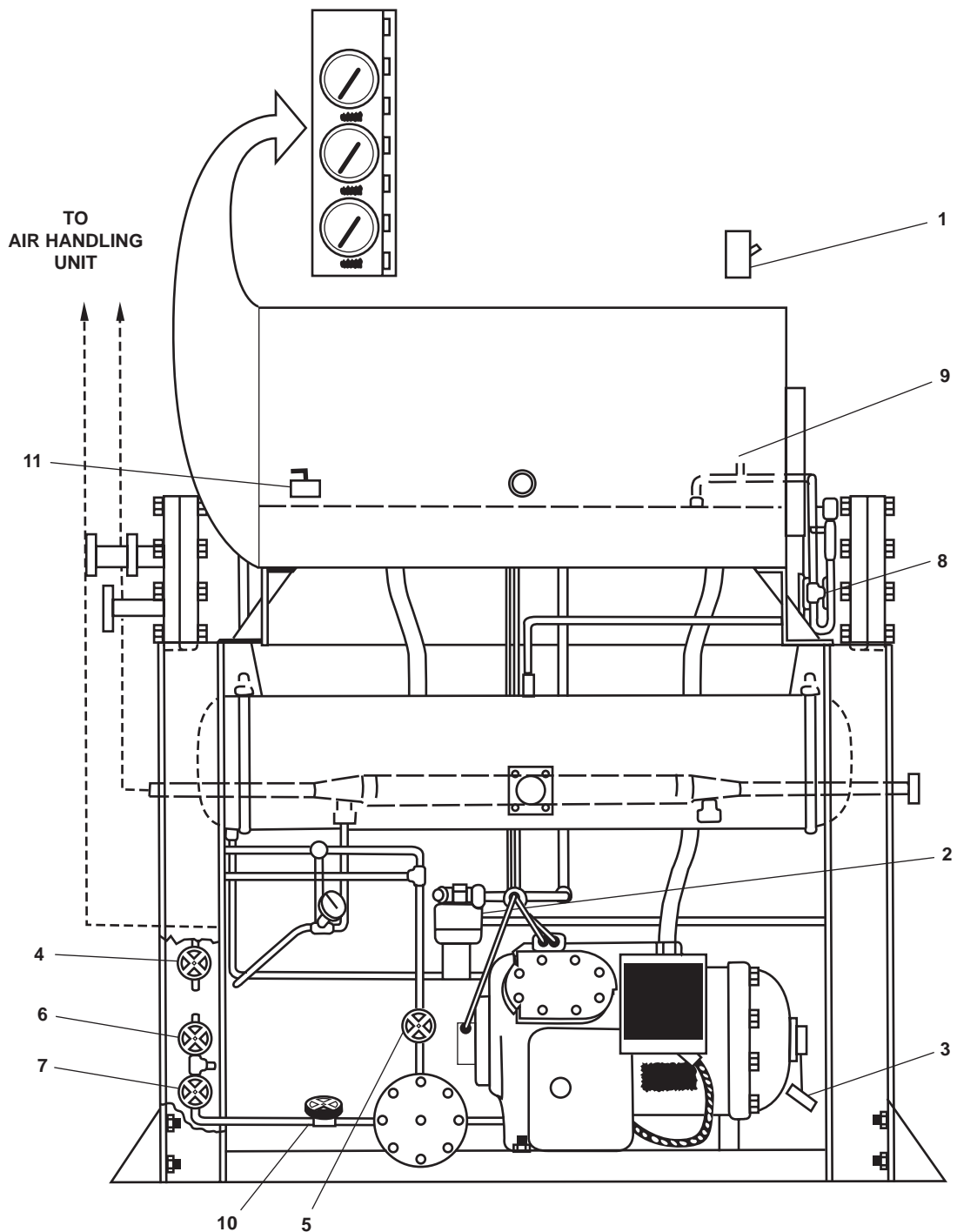


Figure 1. Refrigeration Condenser Unit

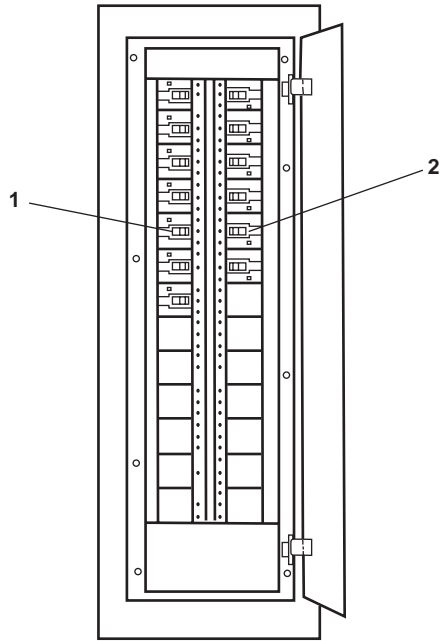


Figure 2. 440V Power Panel No. 5

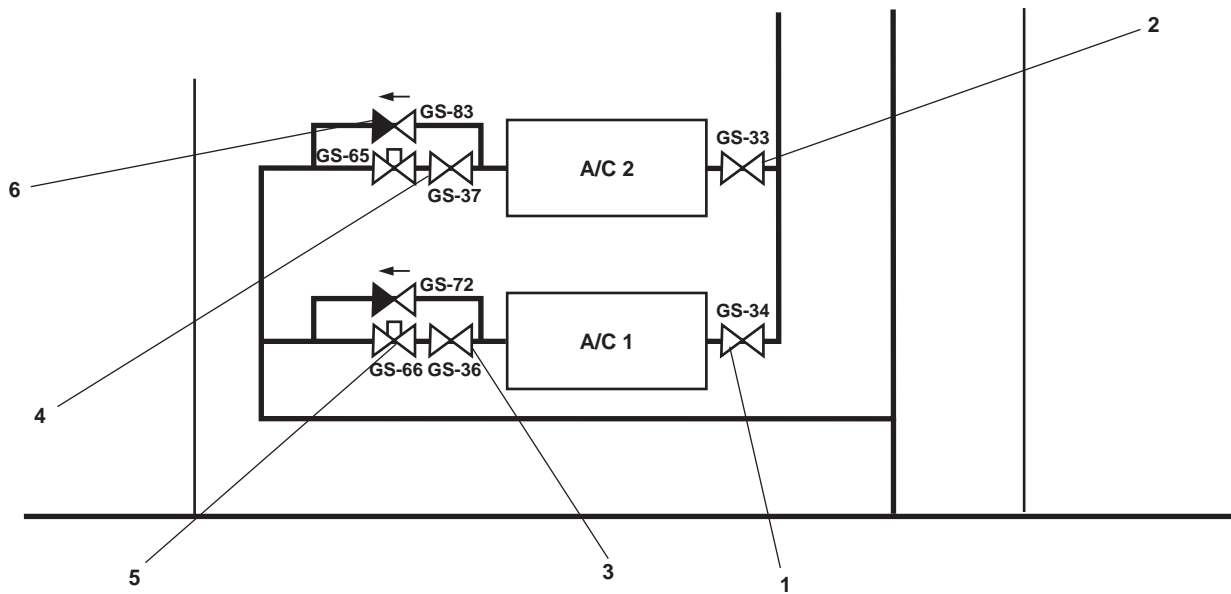


Figure 3. Condenser Cooling Water Valve Locations

 **CAUTION**

When starting the compressor, avoid rapid pumpdown to ensure that oil is not carried off with refrigerant. If oil is pulled from the sump, ensure that oil pressure is a minimum of 16 PSI above suction pressure. If pressure drops below this, stop the compressor and add oil temporarily. The added oil must later be removed when the oil in the sight glass is too high. If this situation occurs, refer to unit maintenance. Low oil pressure and oil level could damage compressor.

**NOTE**

Before starting the compressor, the crankcase heater must be energized for 24 hours. Energizing the heater for this period of time should drive all refrigerant from the oil.

**ALIGN CONDENSER UNIT PIPING**

Align the condenser unit piping according to the following steps:

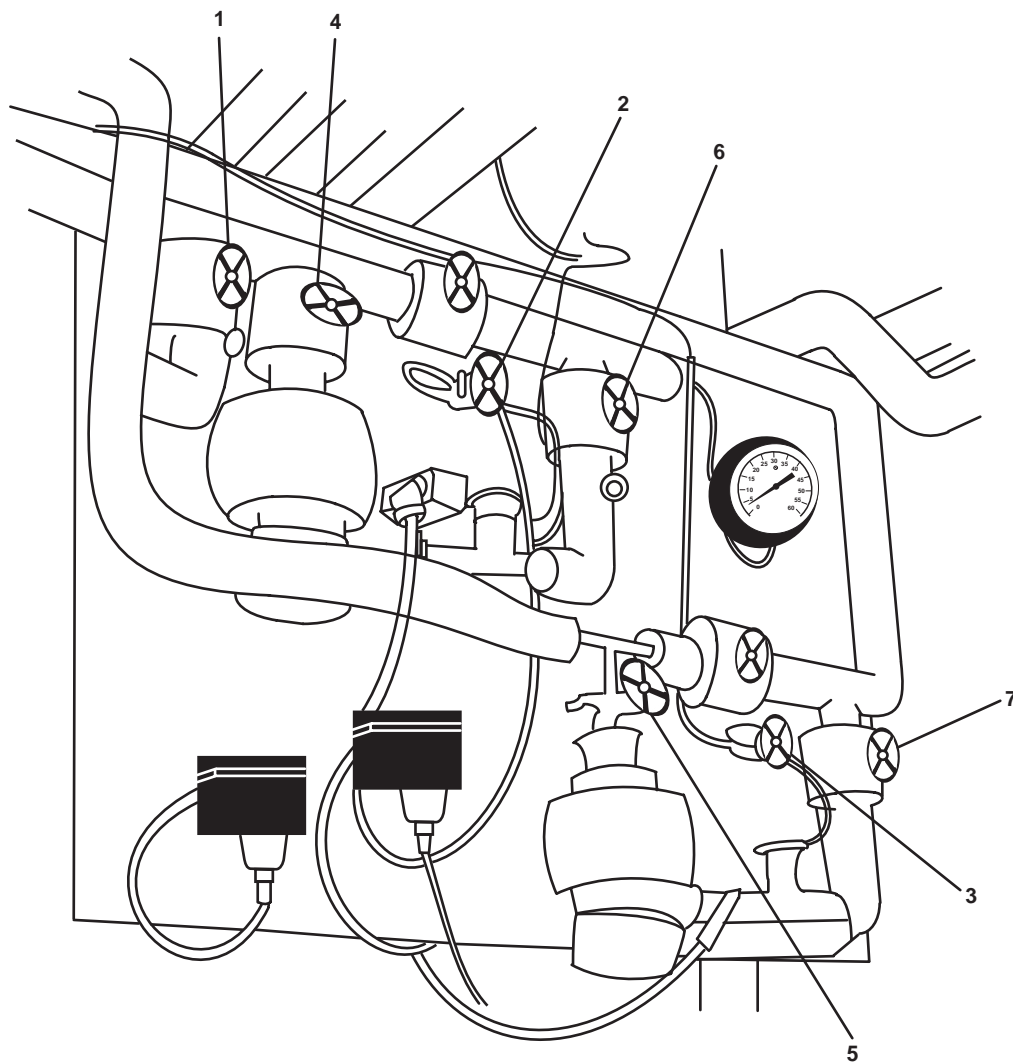
1. OPEN COMPRESSOR DISCHARGE valve (figure 1, item 2). Use a refrigeration ratchet wrench.
2. CLOSE COMPRESSOR SUCTION valve (figure 1, item 3). Use a refrigeration ratchet wrench.
3. OPEN CONDENSER OUTLET valve (figure 1, item 4).
4. OPEN DEHYDRATOR OUTLET valve (figure 1, item 5).
5. CLOSE DEHYDRATOR BY-PASS valve (figure 1, item 6).
6. OPEN DEHYDRATOR INLET valve (figure 1, item 7).
7. OPEN RELIEF VALVE BY-PASS valve (figure 1, item 8).
8. CLOSE PURGE valve (figure 1, item 9). Use a refrigeration ratchet wrench.
9. CLOSE CHARGE AND DRAIN valve (figure 1, item 10).
10. OPEN WATER REGULATOR VALVE ACTUATING LINE valve (figure 1, item 11).

**ALIGN REFRIGERANT PIPING SYSTEM**

Align the refrigerant piping system according to the following steps:

1. CLOSE RFSS-13, LIQUID LINE CRSVR CO (figure 4, item 1).
2. OPEN RFSS-8, EQL LINE (figure 4, item 2) or RFSS-9, EQL LINE (figure 4, item 3).
3. OPEN RFSS-11 (figure 4, item 4), or RFSS-12 (figure 4, item 5), TXV/ STNR/LLSV COV.
4. OPEN RFSS-14, TXV/STNR/LLSV COV (figure 4, item 6) OR RFSS-15, TXV/ STNR/LLSV COV (figure 4, item 7).





**Figure 4. Refrigerant Piping Valve Locations**

## START COMPRESSOR

### **⚠ CAUTION**

If the condenser water cooling system has been drained, have unit maintenance purge the air from the system. Air in the cooling system will reduce cooling efficiency and could result in damage to the compressor.

To prevent oil return problems and possible damage to the compressor, do not operate both condensing units at the same time with RFSS13, LIQUID LINE CRSVR CO and RFSS-20, SUCT LINE CRSVR COV valves open.

To start the compressor, follow this procedure:

1. OPEN COMPRESSOR SUCTION valve (figure 1, item 3) approximately one full turn.
2. Immediately, slowly continue to open COMPRESSION SUCTION valve (figure 1, item 3) as suction pressure is reduced.

 **CAUTION**

Open the COMPRESSION SUCTION valve slowly to prevent rapid pumping down of the suction pressure side, which could cause oil foaming and result in pumping of oil from the compressor crankcase. Damage to the compressor could result from lack of lubrication.

3. Observe compressor operation for 5 minutes.

**NOTE**

Liquid refrigerant return to the compressor will be indicated by a sudden drop in suction temperature and rapid fluctuation in suction pressure.

4. If there is no evidence of liquid refrigerant return to the compressor, open the COMPRESSOR SUCTION valve (figure 1, item 3) wide.
5. When there is evidence of liquid refrigerant return to the compressor, adjust the COMPRESSOR SUCTION valve (figure 1, item 3) until proper suction pressure (2.3 to 2.4 PSI) is indicated on suction gauge.

 **CAUTION**

If the suction temperature and oil pressure do not stabilize or if the compressor develops a knock, stop the compressor by placing the power disconnect switch in the OFF position and notify unit maintenance. Continued operation could damage the compressor.

6. After gauges have stabilized to normal operating readings, secure the other condenser.

**SHUT DOWN OTHER CONDENSER**

Shut down the other condenser according to the following procedure:

1. CLOSE the DEHYDRATOR INLET valve (figure 1, item 7) at the condensing unit being secured.

 **CAUTION**

Serious compressor damage (and possible injury to personnel) will result if the discharge service valve is not opened before the compressor is started.

**NOTE**

Allow the compressor to operate until it is shut down automatically by the suction pressure switch.

2. CLOSE the COMPRESSOR SUCTION valve (figure 1, item 3) of the condensing unit being secured.
3. CLOSE the COMPRESSOR DISCHARGE valve (figure 1, item 2) of the condensing unit being secured.

**ALIGN REFRIGERANT PIPING SYSTEM**

OPEN RFSS-13, LIQUID LINE CRSVR CO (figure 4, item 1).

---

## PULLDOWN MODE OPERATION

The following procedures perform ship stores refrigeration in the pulldown mode.

Align the electrical system according to the following procedure:

1. At the main power disconnect switch, ensure that the main power disconnect 1 is in the ON position on the standby refrigeration condensing unit.
2. At 440V power panel No. 5, ensure that the following circuit breakers are set to ON:
  - a. STORE REFRIGERATION PLANT No. 1./FREEZE BOX DEFROST HEATER. (figure 2, item 1)
  - b. STORE REFRIGERATION PLANT No. 2. (figure 2, item 2)

## START STANDBY REFRIGERATION PLANT 1

### CAUTION

Align the condenser cooling water piping system before starting refrigeration plant. Damage to the refrigeration plant can occur.

Start the standby refrigeration plant 1 according to the following procedure:

1. Align the condenser cooling water system.
  - a. OPEN GS-34, A/C COND No. 2 SPLY (figure 3, item 1) or GS-33, A/C COND No. 1 SPLY (figure 3, item 2).
  - b. OPEN GS-36, WTR REGLTR COV (figure 3, item 3) or GS-37 WTR REGLTR COV (figure 3, item 4).
  - c. CLOSE GS-72, BYP WTR RGLTR (figure 3, item 5) or GS-83 BYP WTR RGLTR (figure 3, item 6).

### CAUTION

When starting the compressor, avoid rapid pumpdown to ensure that oil is not carried off with the refrigerant. If oil is pulled from sump, ensure that the oil pressure is a minimum of 16 PSI above suction pressure. If the pressure drops below this, stop the compressor and add oil temporarily. The added oil must later be removed when the oil in the sight glass is too high. If this situation occurs, refer to unit maintenance. Low oil pressure and oil level could damage compressor.

### NOTE

Before starting the compressor, the crankcase heater must be energized for 24 hours. Energizing the heater for this period of time should drive all refrigerant from the oil.

## ALIGN CONDENSER UNIT PIPING

Align the condenser unit piping according to the following procedure:

1. OPEN the COMPRESSOR DISCHARGE valve (figure 1, item 2).
2. CLOSE the COMPRESSOR SUCTION valve (figure 1, item 3).
3. OPEN the CONDENSER OUTLET valve (figure 1, item 4).
4. OPEN the DEHYDRATOR OUTLET valve (figure 1, item 5).

5. CLOSE the DEHYDRATOR BY-PASS valve (figure 1, item 6).
6. OPEN the DEHYDRATOR INLET valve (figure 1, item 7).
7. OPEN the RELIEF VALVE BY-PASS valve (figure 1, item 8).
8. CLOSE the PURGE valve (figure 1, item 9).
9. CLOSE the CHARGE AND DRAIN valve (figure 1, item 10).
10. OPEN the WATER REGULATOR VALVE ACTUATING LINE valve (figure 1, item 11).

#### ALIGN REFRIGERANT PIPING SYSTEM

### CAUTION

If the condenser water cooling system has been drained, have unit maintenance purge the air from the system. Air in the cooling system will reduce cooling efficiency and could result in damage to the compressor.

### CAUTION

To prevent oil return problems and possible damage to the compressor, do not operate both condensing units at the same time with RFSS-13, LIQUID LINE CRSVR CO and RFSS-20, SUCT LINE CRSVR COV valves OPEN.

Align the refrigerant piping system according to the following procedure:

1. CLOSE RFSS-13, LIQUID LINE CRSVR CO (figure 4, item 1).
2. OPEN RFSS-8, EQL LINE (figure 4, item 2) or RFSS-9, EQL LINE (figure 4, item 3).
3. OPEN RFSS-11, TXV/STNR/LLSV COV (figure 4, item 4) and RFSS-12, TXV/STNR/LLSV COV (figure 4, item 5).

#### START COMPRESSOR

### CAUTION

OPEN the COMPRESSION SUCTION valve slowly to prevent rapid pumping down of the suction pressure side, which could cause oil foaming and result in pumping of oil from the compressor crankcase. Damage to the compressor could result from lack of lubrication.

### CAUTION

Condenser water temperature should read in the NORMAL operating range.

1. Place the power switch (figure 1, item 1) to the ON position.
2. OPEN the COMPRESSOR SUCTION valve (figure 1, item 3) approximately one full turn.
3. Immediately, continue to slowly open the COMPRESSION SUCTION valve (figure 1, item 3) as suction pressure is reduced.

---

The following gauges should also be in the NORMAL operating range: Liquid line temperature gauge, suction pressure gauge, suction temperature gauge, discharge pressure gauge, oil pressure gauge.

**NOTE**

Oil pressure must be 20 PSI above suction pressure.

4. Observe compressor operation for 5 minutes.

**NOTE**

Liquid refrigerant return to the compressor will be indicated by a sudden drop in suction temperature and rapid fluctuation in suction pressure.

5. If there is no evidence of liquid refrigerant return to compressor, open the COMPRESSOR SUCTION valve (figure 1, item 3) wide.

 **CAUTION**

If the suction temperature and oil pressure do not stabilize or if the compressor develops a knock, stop the compressor by placing the power switch in the OFF position and notify unit maintenance. Continued operation could damage the compressor.

6. When there is evidence of liquid refrigerant return to the compressor, adjust COMPRESSOR SUCTION valve (figure 1, item 3) until proper suction pressure (2.3 to 2.4 PSI) is indicated on the suction gauge.

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
AIR CONDITIONING SPLIT PLANT OPERATION AND RADIO ROOM ROOFTOP AIR CONDITIONING  
UNIT EMERGENCY OPERATION**

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**INITIAL SETUP:****Personnel Required:**

One Watercraft Engineer, 88L  
One Watercraft Operator, 88K

**References:**

WP 0082 00 (volume 1)

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**GENERAL**

The air conditioning system normally has both air conditioning plants in operation. The Normal to Split Plant Operation procedure aligns the system for use with one air conditioning unit operating. The Split Plant To Normal Operation procedure returns the system to operation with both air conditioning plants in operation.

**NORMAL TO SPLIT PLANT OPERATION****NOTE**

The air conditioning system normally has both air conditioning plants in operation. This procedure aligns the system for use with one air conditioning unit operating.

1. Shut down one condensing unit:
  - a. Close the DEHYDRATOR INLET valve (figure 1, item 1) on the condenser being shut down.
  - b. Allow the compressor to operate until it is shut down automatically by the suction pressure switch.
2. Align air conditioning piping:
  - a. OPEN RFAC-39, LIQUID LINE CRVR CO. (figure 2, item 1) (overhead).
  - b. OPEN RFAC-41, SUCT LINE CRSVR COV. (figure 2, item 2) (overhead).
3. Secure general service piping. CLOSE the following valves for the condensing unit being shut down:
  - a. Air conditioning condensing unit 1:
    - (1) GS-33, A/C COND No. 1 SPLY (figure 3, item 1)
    - (2) GS-37, WTR RGLTR COV (figure 3, item 2)
    - (3) GS-70, WTR RGLTR COV (figure 3, item 3)
  - b. Air conditioning condensing unit 2:
    - (1) GS-34, A/C COND No. 2 SPLY (figure 3, item 4)
    - (2) GS-36, WTR RGLTR COV (figure 3, item 5)
    - (3) GS-69, WTR RGLTR COV (figure 3, item 6)

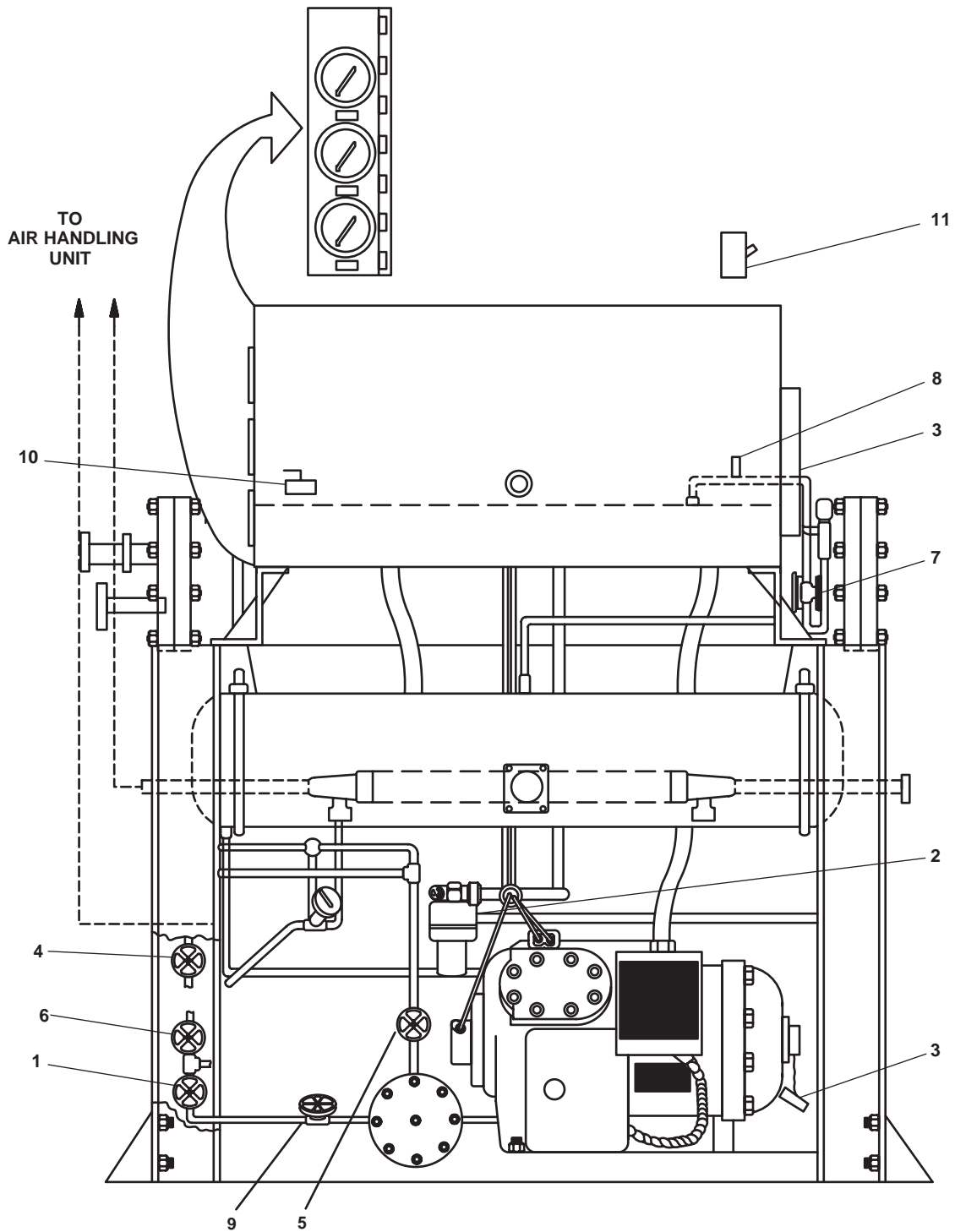


Figure 1. Air Conditioning Condenser Unit



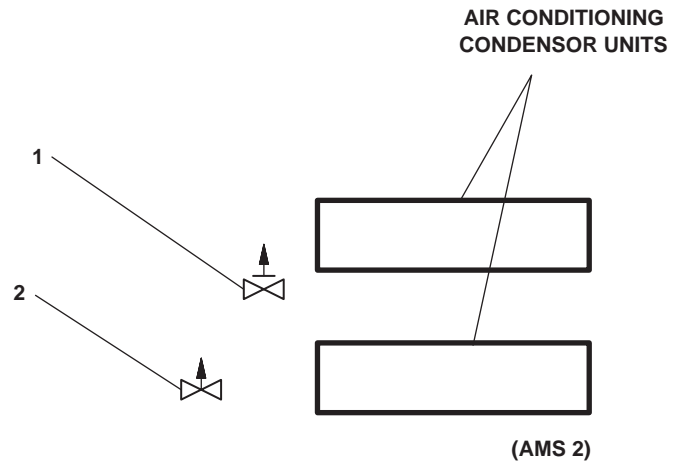


Figure 2. Air Conditioning Piping Valve Locations

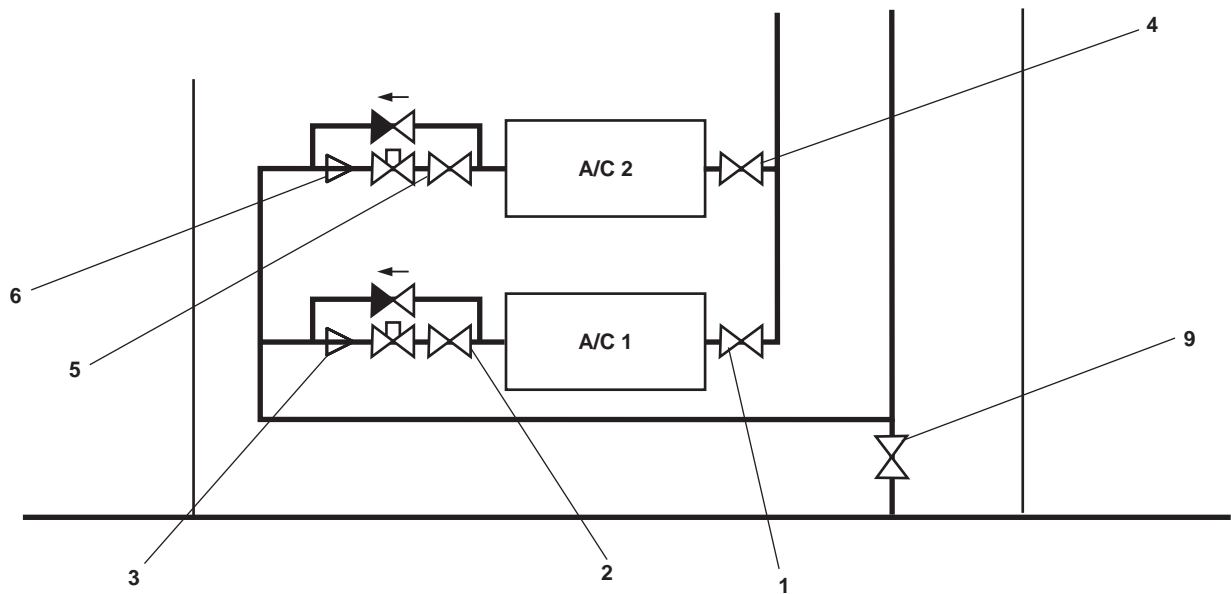


Figure 3. Condenser Cooling Water Valve Locations

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**SPLIT PLANT TO NORMAL OPERATION**

1. Align general service piping. OPEN the following valves for the condensing unit being started:
  - a. Air conditioning condensing unit 1:
    - (1) GS-33, A/C COND No. 1 SPLY (figure 3, item 1)
    - (2) GS-37, WTR RGLTR COV (figure 3, item 2)
    - (3) GS-70, WTR RGLTR COV (figure 3, item 3)
  - b. Air conditioning condensing unit 2:
    - (1) GS-34, A/C COND No. 2 SPLY (figure 3, item 4)
    - (2) GS-36, WTR RGLTR COV (figure 3, item 5)
    - (3) GS-69, WTR RGLTR COV (figure 3, item 6)
2. Align condenser unit piping:
  - a. OPEN COMPRESSOR DISCHARGE valve (figure 1, item 2).
  - b. OPEN COMPRESSOR SUCTION valve (figure 1, item 3). Use refrigeration ratchet wrench
  - c. OPEN CONDENSER OUTLET valve (figure 1, item 4).
  - d. OPEN DEHYDRATOR OUTLET valve (figure 1, item 5).
  - e. CLOSE DEHYDRATOR BY-PASS valve (figure 1, item 6).
  - f. OPEN DEHYDRATOR INLET valve (figure 1, item 1).
  - g. OPEN RELIEF VALVE BY-PASS valve (figure 1, item 7). Use refrigeration ratchet wrench
  - h. CLOSE PURGE valve (figure 1, item 8). Use refrigeration ratchet wrench.
  - i. CLOSE CHARGE AND DRAIN valve (figure 1, item 9).
  - j. OPEN WATER REGULATOR VALVE ACTUATING LINE valve (figure 1, item 10).
3. Align air conditioning piping:

 **CAUTION**

If the condenser water cooling system has been drained, have unit maintenance purge the air from the system. Air in the cooling system will reduce cooling efficiency and could result in damage to the compressor.

Before starting, the compressor crankcase heater must be energized for 24 hours. Energizing the heater for 24 hours should drive all refrigerant from the oil.

To prevent oil return problems and possible damage to the compressor, do not operate both condensing units at the same time with RFAC-39, LIQUID LINE CRSVR CO. and RFAC41, SUCT LINE CRSVR COV. valves OPEN.

- a. Close RFAC-39, LIQUID LINE CRSVR CO. (figure 2, item 1).

- b. Close RFAC-41, SUCT LINE CRVSR CO. (figure 2, item 2).
- c. Open RFAC-34, TXV COV, R01-32-2 (figure 4, item 1) and RFAC-35, TXV COV R01-32-2 (figure 4, item 2).
- d. Open RFAC-59, HAND EXP. V (figure 4, item 3).
- e. Open RFAC-56, TXV COV, R01-32-2 (figure 4, item 4).
- f. Open RFAC-27, HAND EXP (figure 4, item 5).
- g. Open RFAC-40, COIL SUCT COV, R01-32-2 (figure 4, item 6).

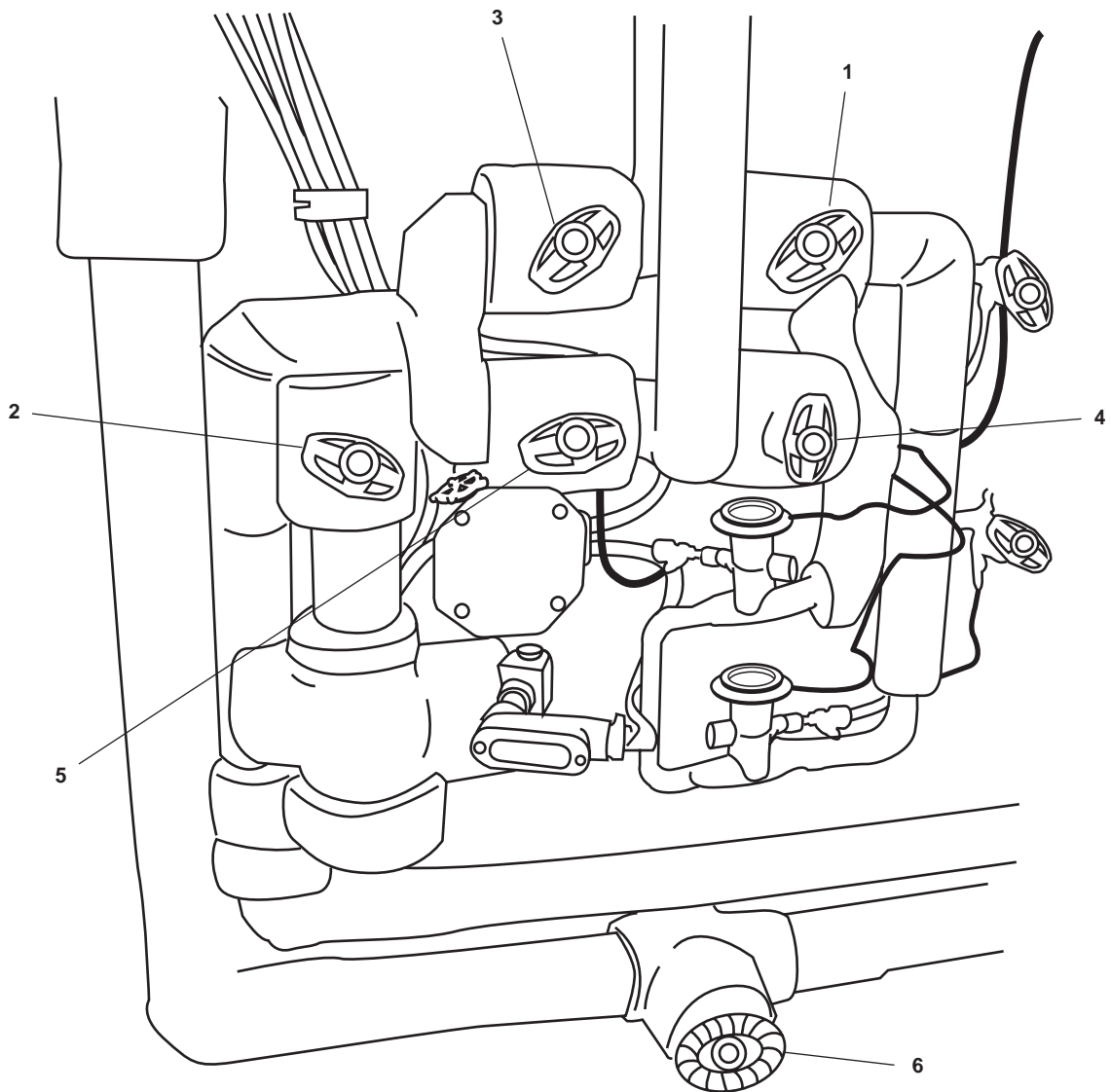


Figure 4. HVAC Manifold

4. Start compressor:
  - a. Set the power switch (figure 1, item 11) to ON.

**⚠ CAUTION**

Open COMPRESSION SUCTION valve slowly to prevent rapid pumping down of suction pressure side, which could cause oil foaming and result in pumping of oil from the compressor crankcase.

- b. OPEN the COMPRESSOR SUCTION valve (figure 1, item 3) approximately one full turn.
- c. Immediately, slowly continue to open COMPRESSION SUCTION valve (figure 1, item 3) as suction pressure is reduced.

**RADIO ROOM ROOFTOP AIR CONDITIONING UNIT EMERGENCY OPERATION**

**INITIAL STARTUP**

1. Set to ON the OUTDOOR CONDENSING UNIT FOR RADIO ROOM circuit breaker (figure 5, item 1) in the 220V air conditioning distribution panel (figure 5, item 2).
2. OPEN the cover (figure 6, item 1) on the radio room rooftop air conditioning fan unit (figure 6, item 2).

**NOTE**

Do not place the fan unit in the test position. The test position is only used after initial installation.

3. Set the TEST EMER. REMOTE switch (figure 6, item 3) on the fan unit (figure 6, item 2) to the EMER. position.
4. CLOSE the cover (figure 6, item 1) on the radio room rooftop air conditioning fan unit (figure 6, item 2).
5. The fan unit (figure 6, item 2) will only operate as indicated in table 1.

**Table 1. Fan Unit Emergency Operating Characteristics**

Operation Mode Preset Temperature	Fan Speed Timer	Flaps
COOL 77° F	AUTO CONTINUOUS	HORIZONTAL

6. Operate the fan unit (figure 6, item 2) under usual conditions (WP 0082 00, volume 1) as soon as the unusual condition has been corrected.

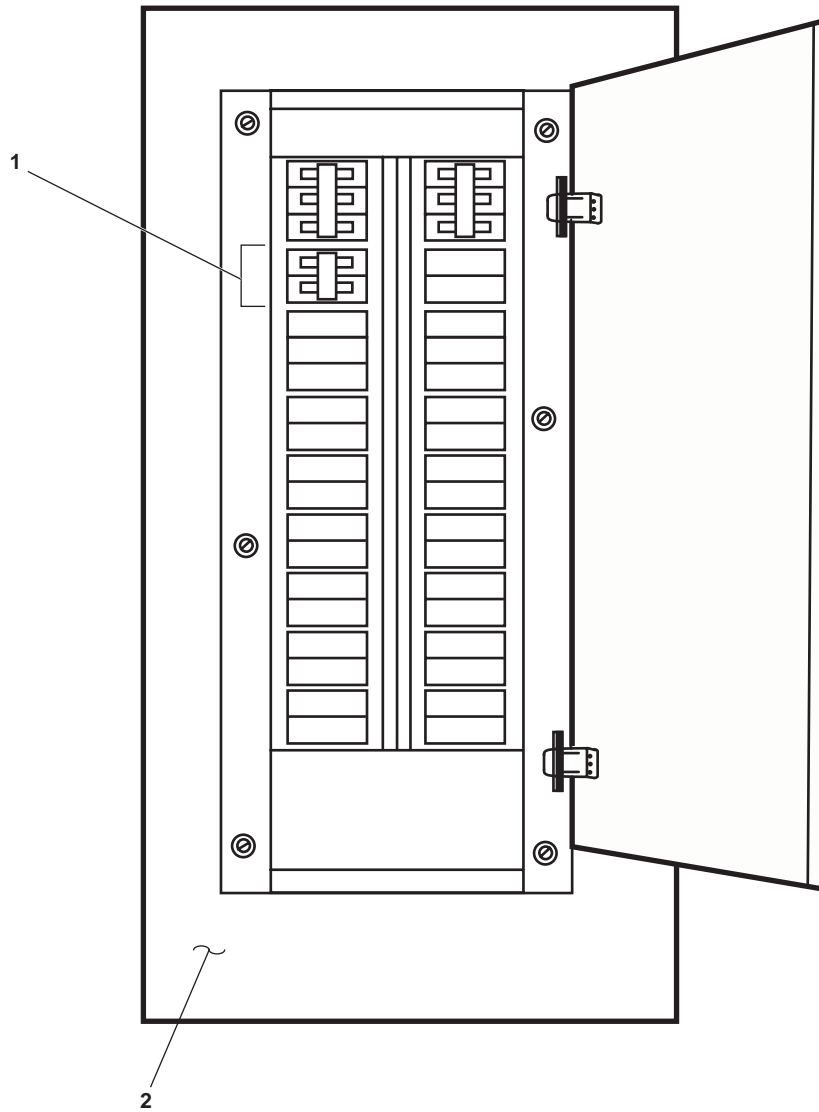
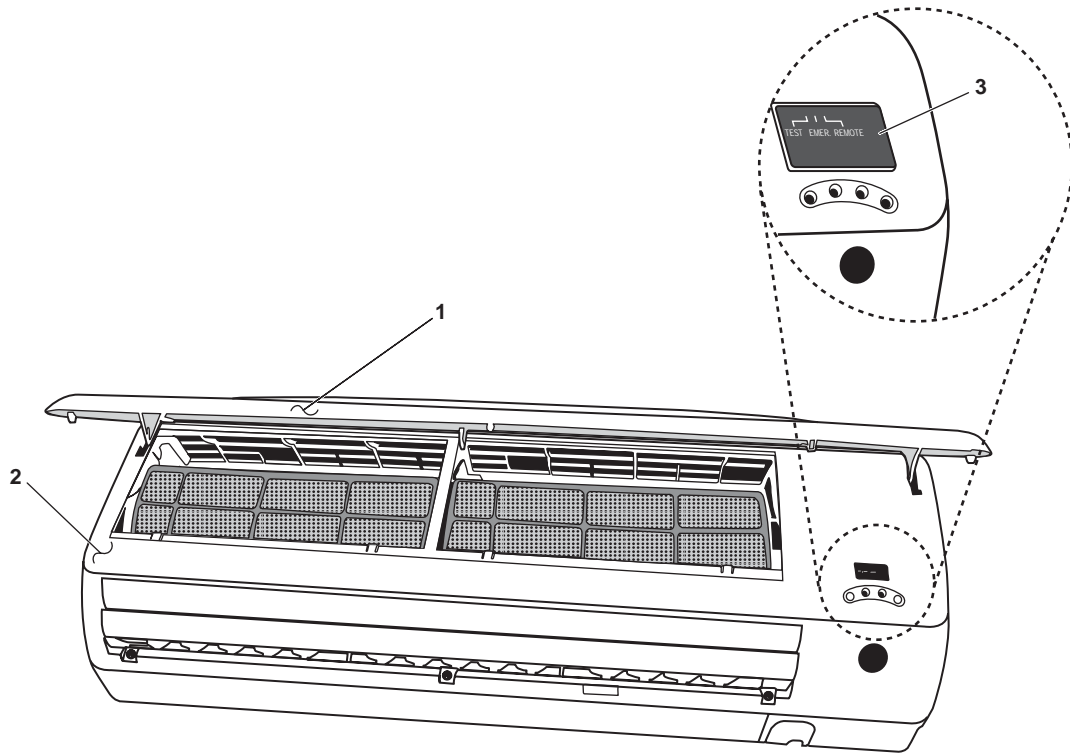


Figure 5. 220V Air Conditioning Distribution Panel



**Figure 6. Radio Room Rooftop Air Conditioning Fan Unit**

**END OF WORK PACKAGE**

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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATION UNDER UNUSUAL CONDITIONS  
INTERIM NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) DECONTAMINATION PROCEDURES**

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**INITIAL SETUP:****References:**

STP 21-1-SMCT  
AR 70-71  
WP 0071 00 (volume 1)

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**GENERAL**

The Large Tug (LT) is not equipped for extended protection against Nuclear, Biological, or Chemical (NBC) fallout. However, the vessel is designed to accommodate performance of the daily maintenance inspections, safety checks, and operations by personnel dressed in MOPP IV protective clothing. All exterior components, equipment, and machinery are capable of withstanding a raw water washdown. This washdown may be accomplished in part by the vessel's own water washdown system. Additional washdown may be accomplished by attending vessels, shore facilities, and/or portable dewatering pumps and hoses.

**SYSTEM OPERATION**

Should the vessel find itself in a contaminated area or come under NBC attack, follow the procedure below:

<b>WARNING</b>
----------------

**After closing all weather openings and securing the ventilation, temperatures onboard the vessel will rise rapidly, especially for personnel utilizing NBC protective procedures. Take all appropriate measures to guard against heat related casualties until the vessel can be decontaminated and the ventilation restored. Failure to comply can result in injury or death.**

1. Close and dog all watertight doors, hatches, portholes, and other openings to the weather.
2. Secure all ventilation onboard the vessel.
3. Utilize proper NBC protective procedures (i.e., MOPP IV clothing) as defined in U.S. Army Training Manual, STP21-1-SMCT.
4. Activate the Washdown Countermeasure (WDCM) system (WP 0071 00, volume 1).
5. Remove the vessel from the contaminated area.
6. Proceed at the earliest opportunity to an area where a thorough decontamination may be performed.
7. Further guidance on NBC contamination can be found in U.S. Army regulation AR 70-71.

**END OF WORK PACKAGE**





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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
STOWAGE AND DECAL/DATA PLATE GUIDE**

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**STOWAGE**

Onboard stowage locations for all Component Of End Item (COEI), Onboard Spares List (OBSL), and Basic Issue Item (BII) list items are included with the item descriptions in WP 0163 00.

**DECAL/DATA PLATE GUIDE**

This work package contains the information necessary to allow you to reproduce and replace distribution panel placards and label plates that become lost, damaged, or illegible.

**DISTRIBUTION PANEL PLACARDS**

Distribution panel placards are shown as figures 1 through 23 in this work package. The distribution placards shown are:

<b>Distribution Panel</b>	<b>Figure</b>
120V Distribution Panel No. 1 .....	1
120V Distribution Panel No. 2 .....	2
120V Distribution Panel No. 3 .....	3
120V Distribution Panel No. 4 .....	4
120V Emergency Distribution Panel No. 1 .....	5
120V Exterior Emergency Lighting Panel No. 2 .....	6
120V Main Deck, 01 & 02 Emergency Lighting Panel No. 1 .....	7
120V Pilothouse Emergency Distribution Panel .....	8
120V Navigation Lighting Panel .....	9
120V Radar Power Distribution Panel .....	10
120V Elex Distribution Panel .....	11
120V Emergency Load Center Distribution Panel .....	12
01 & 02 Level Reheater 120V Fuse Box No. 1 .....	13
Convactor Heater 120V Fuse Box No. 2 .....	14
Deck Reheater 120V Fuse Box No. 3 .....	15
220V Air Conditioning Distribution Panel .....	16
220/110V Distribution Panel .....	17
Load Center Distribution Panel .....	18
440V Power Panel No. 1 .....	19
440V Power Panel No. 2 .....	20
440V Power Panel No. 3 .....	21
440V Power Panel No. 4 .....	22
440V Power Panel No. 5 .....	23

**LABEL PLATES**

The various label plates throughout the vessel are shown in tables 1 through 22 of this work package. The label plates shown are:

<b>Label Plates</b>	<b>Table</b>
Engine Cooling .....	1
Engine Exhaust .....	2
Lube Oil .....	3
Vents, Etc. ....	4
Refrigeration .....	5
Firemain and General Service .....	6
Drainage .....	7
Bilge and Ballast .....	8
Potable Water .....	9
Fuel Oil .....	10
Compressed Air .....	11
Steering Hydraulic .....	12
Towing Machine and Central Hydraulics .....	13
Sewage and Oily Bilge .....	14
HVAC .....	15
Compartments .....	16
Scuttles, Manholes, and Doors .....	17
Miscellaneous .....	18
Pad Eyes .....	19
Miscellaneous Stencilling .....	20
Electrical .....	21
Piping Instrumentation .....	22

Tables 1 through 22 contain the following data:

Column 1: INSCRIPTION. This column indicates the text that is inscribed on each label plate.

Column 2: SECURE TO. This column indicates where the label plate is attached to the component.

Column 3: MATL. This column indicates the material from which the label plate is made. Abbreviations used in this column are detailed in table 23.

Column 4: ATT. This column lists the method of attachment for the label plate. Table 24 and its accompanying figures explain the various methods of attachment.

Column 5: TYPE. This column lists the plate type. Table 25 and its accompanying figures explain the various plate types.

PANEL: 120V DISTRIBUTION PANEL No. 1		FED FROM: LOAD CENTER DISTRIBUTION PANEL. (ENGINE ROOM).	
1	GALLEY RECEPTACLES.		
2	REFRIGERATOR.		
3	COFFEE POT.		
4	GALLEY LIGHTS.		
5	FREEZER.		
6	STEAM TABLES 1 & 2.		
7	MEAT SLICER & FOOD MIXER.		
8	MICROWAVE RECEPTACLE.		
9	BLANK.		
10	SPARE.		
11	GAYLORD CONT CABINET.		
12	BLANK.		

**Figure 1. 120V Distribution Panel No. 1**

PANEL: 120V DISTRIBUTION PANEL No. 2.		FED FROM: LOAD CENTER DISTRIBUTION PANEL. (ENGINE ROOM).
1	01 LEVEL PORT LIGHTS.	
2	PILOTHOUSE FRESH AIR 2 SPEED SUPPLY FANS.	
3	01 LEVEL PASSAGEWAY LIGHTS.	
4	01 LEVEL STARBOARD RECEPTACLES.	
5	01 LEVEL DRINKING FOUNTAIN.	
6	PILOTHOUSE FRESH AIR INTAKE DAMPERS.	
7	01 LEVEL STARBOARD LIGHTS.	
8	SPARE.	
9	1 & 01 LEVEL CONVECTOR HEATER FUSE BOX No. 2.	
10	SPARE.	
11	SPARE.	
12	01 LEVEL PORT RECEPTACLES.	
13	PILOTHOUSE RECEPTACLES.	
14	PILOTHOUSE DRINKING FOUNTAIN & COFEE MAKER.	
15	RADIO ROOM RECEPTACLES.	
16	BLANK.	

Figure 2. 120V Distribution Panel No. 2

PANEL: 120V DISTRIBUTION PANEL No. 3.		FED FROM: LOAD CENTER DISTRIBUTION PANEL. (ENGINE ROOM).
1	MAIN DECK DRINKING FOUNTAIN.	
2	MAIN DECK STARBOARD LIGHTS.	
3	MAIN DECK PORT LIGHTS.	
4	MAIN DECK PORT RECEPTACLES.	
5	MAIN DECK PASSAGEWAY LIGHTS.	
6	MESS ROOM LIGHTS.	
7	MAIN DECK REHEATER FUSE BOX No. 3.	
8	01 & 02 LEVEL REHEATER FUSE BOX No. 1.	
9	MAIN DECK STARBOARD RECEPTACLES.	
10	SPARE.	
11	SPARE.	
12	SPARE.	
13	BLANK.	

Figure 3. 120V Distribution Panel No. 3

PANEL: 120V DISTRIBUTION PANEL No. 4.		FED FROM: LOAD CENTER DISTRIBUTION PANEL. (ENGINE ROOM).
1	ENGINE ROOM LIGHTS.	
2	BOWTHRUSTER COMPT & AUXILIARY MACHINERY SPACES 1 & 2 LIGHTS.	
3	SHIPS SERVICE DIESEL GENERATOR SPACE HEATER No. 1.	
4	ENGINEERS OPERATING STATION R2-40-1.	
5	OILY WATER SEPARATOR.	
6	J.B. FOR EMERGENCY SWITCHBOARD STRIP HEATER & EMERGENCY GENERATOR SPACE HEATER.	
7	SHIPS SERVICE DIESEL GENERATOR JACKET WATER HEATER No. 1.	
8	HOLD LEVEL & FAN TAIL RECEPTACLES.	
9	SHIPS SERVICE DIESEL GENERATOR SPACE HEATER No. 2.	
10	SHIPS SERVICE DIESEL GENERATOR JACKET WATER HEATER No. 2.	
11	PUMP DRIVE ENGINE JACKET WATER HEATER.	
12	BOW THRUSTER ENGINE JACKET WATER HEATER.	
13	ENGINEERS OPERATING STATION DRINKING FOUNTAIN.	
14	WORKSHOP EXHAUST FAN E02-16-1.	
15	J.B. FOR A/C REEF SYSTEMS Nos. 1 & 2 (INC. LIQUID LINE SOLENOID VALVES).	
16	J.B. FOR SS REFG Nos. 1 & 2 (INC. FAN COIL AND CONTROLLERS).	
17	J.B. FOR AUTO DRAIN ON AIR RECEIVER (INC. REFER DRYER).	
18	ROWPU BATTERY CHARGER.	
19	MAIN ENGINE SHUTDOWN, (PILOTHOUSE).	
20	OIL CONTENT MONITOR.	

Figure 4. 120V Distribution Panel No. 4

PANEL: 120V EMERGENCY DISTRIBUTION PANEL No. 1.		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).	
1	ENGINE ROOM EMERGENCY LIGHTS. (PORT).		
2	ENGINE ROOM EMERGENCY LIGHTS. (STBD).		
3	BOW THRUSTER & AMS No. 1. EMERGENCY LIGHTS.		
4	AMS No. 2. EMERGENCY LIGHTS.		
5	STEERING GEAR ROOM & TOWING GEAR LIGHT.		
6	TLI SYSTEM.		
7	TOWING MACHINE.		
8	FIRE DETECTION SYSTEM.		
9	REMOTE PROPULSION INDICATOR PANEL.		
10	E.O.T. SYSTEM.		
11	SSDG No. 1. BATTERY CHARGER.		
12	MACHINERY DC CONTROL BATTERY CHARGER.		
13	MONITOR SYSTEM CIRCUIT.		
14	TOW MACHINE HEATERS		
15	RACOR FILTER		
16	AFT CONSOLE HEATER.		
17	BROMINATOR.		
18	SPARE.		

Figure 5. 120V Emergency Distribution Panel No. 1

PANEL: 120V EXTERIOR EMERG LIGHTING PANEL No. 2.		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).	
1	INFL BOAT FLOODLIGHT.		
2	01 LEVEL WEATHER DECK LIGHTS.		
3	TOWING FLOODLIGHTS.		
4	ROTARY CLEARVIEW WIPER AND HEATER.		
5	WINDSCREEN WIPERS. (PORT & STARBOARD FWD).		
6	BOW FLOODLIGHTS.		
7	PILOTHOUSE WEATHER DECK LIGHTS.		
8	LIFE RAFT FLOODLIGHT. (PORT).		
9	WINDSCREEN WIPERS. (STARBOARD & PORT FWD).		
10	SPARE.		
11	LIFE RAFT FLOODLIGHT. (STARBOARD).		
12	BLANK.		

Figure 6. 120V Exterior Emergency Lighting Panel No. 2



PANEL: 120V MAIN DECK, 01 & 02 EMERGENCY LIGHTING PANEL No. 1.		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).	
1	MAIN DECK EMERGENCY LIGHTING.		
2	FM-200 SYSTEM.		
3	FREEZER ALARM.		
4	01 LEVEL EMERGENCY LIGHTS.		
5	REFRIGERATOR STORE ROOM LIGHT.		
6	SPARE.		
7	SPARE.		
8	PILOTHOUSE EMERGENCY LIGHTS.		
9	RADIO ROOM EMERGENCY LIGHTS.		
10	ALARM SWITCHBOARD. (HIGH TEMPERATURE & SPRINKLER).		
11	SPARE.		
12	SPARE.		

Figure 7. 120V Main Deck, 01 & 02 Emergency Lighting Panel No. 1

PANEL: 120V PILOTHOUSE EMER. DISTRIBUTION PANEL.		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).
1	SPARE.	
2	PORT SEARCH LIGHT POWER SUPPLY.	
3	POWER SUPPLY. (GMDSS).	
4	GMDSS 12VDC BATTERY CHARGER.	
5	S BAND RADAR MOTOR.	
6	SPEED LOG 85 ELECTRONICS UNIT.	
7	SPARE.	
8	STARBOARD SEARCH LIGHT POWER SUPPLY.	
9	RADAR DISTRIBUTION PANEL.	
10	SPARE.	
11	X BAND RADAR MOTOR.	
12	SPARE.	
13	WINDSCREEN ELEMENTS. (FWD).	
14	WINDSCREEN ELEMENTS. (AFT).	
15	SONAR DIGITAL AN/SQN. (ECHO SOUNDER DISPLAY).	
16	POWER SUPPLY. (GMDSS).	
17	RECEPTACLES. (GMDSS).	
18	DSC 500 POWER. (GMDSS).	
19	SPARE.	
20	INTERCOM SYSTEM.	
21	BLANK.	
22	BLANK.	

**Figure 8. 120V Pilothouse Emergency Distribution Panel**

PANEL: 120V NAVIGATION LIGHTING PANEL.		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).	
1	ANCHOR LIGHT.		
2	STERN LIGHT.		
3	MAST HEAD LIGHTS.		
4	LOWER TOWING & PUSHING LIGHTS.		
5	BLINKER LIGHT (PORT & STARBOARD) & BLINKER LIGHT SYSTEM MORSE SWITCH		
6	SIDE LIGHT. (PORT).		
7	SIDE LIGHT. (STARBOARD).		
8	TOWING MAST HEAD LIGHT.		
9	NOT UNDER COMMAND / RESTRICTED LIGHT.		
10	UPPER TOWING & PUSHING LIGHT.		
11	VESSEL RESTRICTED IN ABILITY TO MANOEUVRE LIGHT RECEPTACLE.		

Figure 9. 120V Navigation Lighting Panel



PANEL: 120V ELEX DISTRIBUTION PANEL		FED FROM: EMERGENCY LOAD CENTER DISTRIBUTION PANEL. (EMERGENCY GENERATOR ROOM).	
1	UPS FOR RADIO RACK. (RECEPTACLE - RACK 3).		
2	UPS FOR BACK-UP ECDIS CONSOLE.		
3	UPS FOR MAIN ECDIS CONSOLE.		
4	RF5051 POWER SUPPLY. (RECEPTACLE - RACK 2).		
5	RF5051 POWER SUPPLY. (RECEPTACLE - RACK 2).		
6	P.A. SYSTEM.		
7	15" TFT MONITOR.		
8	GMDSS BATTERY CHARGER.		
9	SPARE.		
10	SPARE.		
11	SPARE.		
12	SPARE.		
13	FOG HORN.		
14	SPARE.		

Figure 11. 120V Elex Distribution Panel



PANEL: 01 & 02 LEVEL REHEATER 120V FUSE BOX No. 1.		FED FROM: 120V DISTRIBUTION PANEL No. 3. (MAIN DECK).	
1	REHEATER 01-34-1. (.39 KW).		
2	REHEATER 01-41-1 (.39 KW).		
3	SPARE.		
4	REHEATER 01-50-2. (.35 KW).		
5	REHEATER 01-50-1. (.3 KW).		
6	PORT BRIDGE WING CONSOLE HEATER.		
7	STARBOARD BRIDGE WING CONSOLE HEATER.		
8	REHEATER 01-39-2. (.58 KW).		
9	REHEATER 02-46-2. (2.06 KW).		
10	SPARE.		
11	REHEATER 02-44-1. (2.02 KW).		
12	SPARE.		

Figure 13. 01 & 02 Level Reheater 120V Fuse Box No. 1

PANEL: CONVECTOR HEATER 120V FUSE BOX No. 2.		FED FROM: 120V DISTRIBUTION PANEL No. 2. (01 LEVEL).	
1	CONVECTOR HEATER 01-36-2. (.6 KW).		
2	CONVECTOR HEATER. 01-44-2. (.5 KW).		
3	CONVECTOR HEATER. 01-45-1. (.6 KW).		
4	SPARE.		
5	CONVECTOR HEATER. 1-50-2. (.6 KW).		
6	CONVECTOR HEATER. 01-51-2. (.5 KW).		
7	CONVECTOR HEATER. 1-40-2. (1.2 KW).		
8	SPARE.		
9	CONVECTOR HEATER. 01-51-1. (.5 KW).		
10	CONVECTOR HEATER. 1-56-1. (.75 KW).		
11	CONVECTOR HEATER. 01-57-2. (1.2 KW).		
12	SPARE.		

Figure 14. Convector Heater 120V Fuse Box No. 2





PANEL: 220V AIR CONDITIONING DISTRIBUTION PANEL.		FED FROM: SHIPS SERVICE SWITCHBOARD (EOS)	
1	PILOTHOUSE OVERHEAD A/C UNIT PORT.		
2	PILOTHOUSE OVERHEAD A/C UNIT STARBOARD.		
3	OUTDOOR CONDENSING UNIT FOR RADIO ROOM.		
4	SPARE.		
5	BLANK.		
6	BLANK.		
7	BLANK.		
8	BLANK.		
9	BLANK.		
10	BLANK.		

Figure 16. 220V Air Conditioning Distribution Panel

PANEL: 220 / 110V DISTRIBUTION PANEL.		FED FROM: 440V / 220 - 110V 25KVA TRANSFORMER. (MESS RECREATION SPACE).	
1	DISHWASHER / BOOSTER HEATER.		
2	GARBAGE DISPOSAL.		
3	DRYER.		
4	WASHER.		
5	GALLEY TOASTER.		
6	CREW'S MESS TOASTER.		
7	TRASH COMPACTOR.		
8	BEVERAGE DISPENSER.		
9	ICE MAKER.		
10	SPARE.		
11	BLANK.		
12	BLANK.		
13	BLANK.		
14	BLANK.		
15	BLANK.		
16	BLANK.		
17	BLANK.		
18	BLANK.		
19	BLANK.		
20	BLANK.		
21	BLANK.		
22	BLANK.		
23	BLANK.		

Figure 17. 220/110V Distribution Panel



PANEL: 440V POWER PANEL No. 1.		FED FROM: SHIPS SERVICE SWITCHBOARD. (EOS).
1	LUBE OIL TRANSFER PUMP.	
2	ENGINE ROOM UNIT HEATER.	
3	FRESH WATER PUMP No. 1, (REDUCTION GEAR).	
4	FRESH WATER PUMP No. 2, (REDUCTION GEAR)	
5	MAIN ENGINE JACKET WATER HEATER No. 1./TURBO OIL PUMP No. 1./ WATER LAY OVER PUMP No.1.	
6	MAIN ENGINE LUBE OIL PRIMING PUMP No. 1.	
7	MAIN ENGINE LUBE OIL PRIMING PUMP No. 2.	
8	SPARE.	
9	MAIN ENGINE JACKET WATER HEATER No. 2/TURBO OIL PUMP No. 2./ WATER LAY OVER PUMP No. 2.	
10	SPARE.	
11	FUEL OIL TRANSFER PUMP No. 2.	
12	SEWAGE DISCHARGE PUMP No. 1.	
13	SEWAGE DISCHARGE PUMP No. 2.	
14	BLANK.	

Figure 19. 440V Power Panel No. 1

PANEL: 440V POWER PANEL No. 2.		FED FROM: SHIPS SERVICE SWITCHBOARD. (EOS).	
1	REHEATER 1-23-2.		
2	GALLEY SUPPLY FAN S1-22-4/ CONTROLLER FOR GALLEY EXTRACT FAN E1-37-1.		
3	RANGE.		
4	GRIDDLE.		
5	FRY KETTLE.		
6	GALLEY EXHAUST FAN E1-37-1/ CONTROLLER FOR GALLEY EXTRACT FAN S1-22-4.		
7	SPARE.		
8	SPARE.		
9	SPARE.		
10	BLANK.		
11	BLANK.		
12	BLANK.		

Figure 20. 440V Power Panel No. 2

PANEL: 440V POWER PANEL No. 3.		FED FROM: SHIPS SERVICE SWITCHBOARD. (EOS).
1	PREHEATER 1-23-4.	
2	PREHEATER 1-25-2.	
3	AUXILIARY MACHINERY SPACE No. 2. SUPPLY FAN 1-22-2.	
4	BOSUN STORE REHEATER 1-57-1.	
5	PREHEATER 01-31-2.	
6	REHEATER 01-32-2.	
7	BOSUN STORE & LAUNDRY SPACE SUPPLY FAN S1-58-1 /CONTROLLER FOR LAUNDRY SPACE EXHAUST FAN E1-62-2.	
8	CREW'S MESS CRSR FAN COIL R1-25-2.	
9	01 & PILOTHOUSE LEVEL FAN COIL R01-32-2.	
10	LAUNDRY SPACE EXHAUST FAN E1-62-2/ CONTROLLER FOR BOSUN STORE & LAUNDRY SPACE SUPPLY FAN S1-58-1.	
11	SPARE.	
12	SANITARY SPACE EXHAUST FAN E01-44-2.	
13	SPARE.	
14	BLANK.	

Figure 21. 440V Power Panel No. 3

PANEL: 440V DISTRIBUTION PANEL No. 4		FED FROM: SHIPS SERVICE SWITCHBOARD. (EOS).	
1	AIR COMPRESSOR No. 1.		
2	AIR COMPRESSOR No. 2.		
3	MSD DISCHARGE PUMP AND BLOWER.		
4	SPARE.		
5	HOT POTABLE WATER RECIRCULATING PUMP.		
6	UNIT HEATER BOWTHRUSTER.		
7	AUXILIARY MACHINERY SPACE No. 1. SUPPLY FAN.		
8	AUXILIARY MACHINERY SPACE No. 1. UNIT HEATER.		
9	SPARE.		
10	SPARE.		

Figure 22. 440V Power Panel No. 4





Table 1. Engine Cooling Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
Asw-17 SEA SUCTION S.W. COOLING	ATTACH TO VALVE BODY	AL	A	A
Asw-18 S.W. TO BOW THRUSTER ENG.	ATTACH TO NUT ON HANDWHEEL	AL	B	B
Asw-19 S.W. TO PUMP DRIVE ENG	ATTACH TO NUT ON HANDWHEEL	AL	B	B
Asw-20 S.W. FR. PUMP DRIVE ENG. TO OVB'D DISCHARGE	ATTACH TO HANDWHEEL NUT	AL	C	D
Asw-21 S.W. FR. BOW THRUSTER ENG. TO OVB'D DISCHARGE	ATTACH TO HANDWHEEL NUT	AL	C	D
Asw-22 OVB'D DISCH., S.W. COOLING	ATTACH TO VALVE OR PIPE	AL	A	A
Fwc-1 F.W. FR. KEEL CLR TO M.E. No. 1	ATTACH TO BOLT ON HANDLE	AL	B	B
Fwc-2 F.W. FR. KEEL CLR TO M.E. No 2	ATTACH TO BOLT ON HANDLE	AL	B	B
Fwc-3 F.W. FR. M.E. No. 1 TO KEEL CLR.	ATTACH TO BOLT ON HANDLE	AL	B	B
Fwc-4 F.W. FR. M.E. No. 2 TO KEEL CLR.	ATTACH TO BOLT ON HANDLE	AL	B	B
Fwc-9 F.W. FR. KEEL CLR TO S.S.D.G. No. 1	ATTACH TO VALVE BODY	AL	A	A
Fwc-10 F.W. FR. KEEL CLR TO S.S.D.G. No. 2	ATTACH TO VALVE BODY	AL	A	A
Fwc-11 F.W. FR. S.S.D.G. No. 1 TO KEEL CLR.	ATTACH TO VALVE BODY	AL	A	A
Fwc-12 F.W. FR. S.S.D.G. No. 2 TO KEEL CLR.	ATTACH TO VALVE BODY	AL	A	A

Table 1. Engine Cooling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
Fwc-13 F.W. FR. RED. GEAR No. 1 TO KEEL CLR	ATTACH TO NUT ON HANDLE	AL	B	B
Fwc-14 F.W. FR. RED. GEAR No. 2 TO KEEL CLR	ATTACH TO NUT ON HANDLE	AL	B	B
Fwc-15 F.W. FR. KEEL CLR TO RED. GEAR No. 1	ATTACH TO NUT ON HANDLE	AL	B	B
Fwc-16 F.W. FR. KEEL CLR TO RED. GEAR No. 2	ATTACH TO NUT ON HANDLE	AL	B	B
Fwc-23 F.W. FILL CONN.	ATTACH TO TOP OF HANDWHEEL	AL	C	D
Fwc-24 F.W. FILL CONN.	ATTACH TO TOP OF HANDWHEEL	AL	C	D

Table 2. Engine Exhaust Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
De-3 M.E. No. 1. EXH. DR.	ATTACH TO HANDWHEEL	AL	C	C
De-4 M.E. No. 2. EXH. DR.	ATTACH TO HANDWHEEL	AL	C	C
De-5 S.S.D.G. No. 1 EXH. DR.	ATTACH TO HANDWHEEL	AL	C	C
De-6 S.S.D.G. No. 2 EXH. DR.	ATTACH TO HANDWHEEL	AL	C	C
De-7 BOW THRUSTER ENG.EXH.DR.	ATTACH TO HANDWHEEL	AL	C	C
De-8 PUMP DRIVE ENG. EXH.DR.	ATTACH TO HANDWHEEL	AL	C	C
De-9 E.D.G. EXH.DR.	ATTACH TO HANDWHEEL	AL	C	C

Table 3. Lube Oil Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
Lo-1 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-2 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-3 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-4 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-5 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-6 LUBO DR TO OILY DR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-7 C.O.V.-LUBO XFER PMP. SUCT.	ATTACH TO HANDLE NUT	AL	B	B
Lo-8 LUBO TO BOW THRUSTER ENG.	ATTACH TO HANDLE NUT	AL	B	B
Lo-9 LUBO TO PUMP DRIVE ENG.	ATTACH TO HANDLE NUT	AL	B	B
Lo-10 LUBO TO S.S.D.G No. 2	ATTACH TO HANDLE NUT	AL	B	B
Lo-11 LUBO TO S.S.D.G No. 1	ATTACH TO HANDLE NUT	AL	B	B
LUB OIL TANK	ATTACH TO GAUGE	PH BK/WH		J
Lo-14 LUBO XFER. TO OILY WST. STOR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-15 LUBO STOR. TK. OUT. NOTE: REMOTELY OPERATED NEED 2 LABEL PLATES	ATTACH TO VALVE OR PIPE	AL	A	A
Lo-17 BKT. FILL CONN.		AL	C	D
Lo-18 LUBO SPLY.	ATTACH TO HANDLE NUT	AL	B	B

Table 3. Lube Oil Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
Lo-20 LUBO MN. DK. FILL CONN.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-21 OILY WST. STOR. TK. DR.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-22 LUBO STOR. TK. DR.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-23 M.E. No. 1 - LUBO PUR. SUCT.	ATTACH TO HANDLE NUT	AL	B	B
Lo-24 M E. No. 1 - LUBO PUR. DISCH/FILL	ATTACH TO HANDLE NUT	AL	B	B
Lo-25 M.E. No. 2 - LUBO PUR. SUCT.	ATTACH TO HANDLE NUT	AL	B	B
Lo-26 M.E. No. 2 - LUBO PUR. DISCH/FILL	ATTACH TO HANDLE NUT	AL	B	B
Lo-27 LUBO DR. FR. RED. GEAR No. 1	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-28 LUBO DR. FR. RED. GEAR No. 2	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-29 M.E. No. 1 - LUBO PUR. SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-30 M.E. No. 2 - LUBO PUR. SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-31 M.E. No. 1 - LUBO PUR DISCH. / FILL	ATTACH TO HANDLE NUT	AL	B	B
Lo-32 M.E. No. 2 - LUBO PUR DISCH. / FILL.	ATTACH TO HANDLE NUT	AL	B	B
Lo-33 LUBO TO MAIN ENGS.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-37 LUBO TO S.S.D.G. No. 1.	ATTACH TO HANDLE NUT	AL	B	B

Table 3. Lube Oil Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
Lo-38 LUBO TO S.S.D.G. No. 2.	ATTACH TO HANDLE NUT	AL	B	B
Lo-39 LUBO TO PUMP DRIVE ENG.	ATTACH TO HANDLE NUT	AL	B	B
Lo-40 LUBO TO BOW THRUSTER ENG.	ATTACH TO HANDLE NUT	AL	B	B
Lo-41 LUBO TK. OUT-BOW THRUSTER	ATTACH TO HANDLE NUT	AL	B	B
Lo-45 RELIEF – SET AT 30 P.S.I.	TIE WRAP TO VALVE BODY	AL	A	A
Lo-46 RELIEF – SET AT 30 P.S.I.	TIE WRAP TO VALVE BODY	AL	A	A
Lo-47 C.O.V. PRELUBE PMP. DISCH.	ATTACH TO HANDWHEEL NUT	AL	C	D
Lo-48 C.O.V. PRELUBE PMP. DISCH.	ATTACH TO HANDWHEEL NUT	AL	C	D

Table 4. Vents, Etc. Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
AE-3 OILY DR.TK. VENT	ATTACH TO BHD NEAR VLV	AL	T	A
AE-13 SEACHEST VENT	ATTACH TO BHD NEAR VLV	AL	T	A
AE-14 F.O. TK. 4P VENT	ATTACH TO SPILL CONT. OR TIE WRAP TO PIPE	AL	T	A
AE-15 F.O. TK 4S VENT	ATTACH TO SPILL CONT. OR TIE WRAP TO PIPE	AL	T	A
AE-16 BLST. TK No. 1 VENT	TIE WRAP TO PIPE	AL	T	A
AE-17 F.O.TK. 2S VENT	TIE WRAP TO PIPE	AL	A	A
AE-18 SEACHEST VENT	ATTACH TO BHD NEAR VENT VALVE	AL	T	A
AE-19 F.O. SVCE TK VENT STBD	TIE WRAP TO PIPE	AL	A	A
AE-20 BLST. TK. No. 2S VENT	TIE WRAP TO PIPE	AL	A	A
AE-21 BLST TK No. 2P VENT	TIE WRAP TO PIPE	AL	A	A
AE-26 SEACHEST BLWDN	ATTACH TO HANDWHEEL NUT	AL	C	E
AE-27 SEACHEST BLWDN	ATTACH TO HANDWHEEL NUT	AL	C	E
AE-28 SEACHEST VENT	ATTACH TO HANDWHEEL NUT	AL	C	C
AE-29 SEACHEST VENT	ATTACH TO HANDWHEEL NUT	AL	C	C
AE-30 F.O.TK.3C VENT	ATTACH TO BHD ABV VLV	AL	T	A
AE-34 F.O. TK.2C VENT	TIE WRAP TO PIPE	AL	A	A



Table 4. Vents, Etc. Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
AE-35 F.O.TK.1S VENT	ATTACH TO SPILL CONT	AL	T	A
AE-36 F.O.TK.1P VENT	ATTACH TO SPILL CONT	AL	T	A
AE-37 I.O. SVCE TK. VENT PORT	TIE WRAP TO PIPE	AL	A	A
AE-38 LUBO STOR. TK VENT.	ATTACH TO BHD ABV. VLV.	AL	T	A
AE-39 OILY WST.STOR. TK VENT.	ATTACH TO BHD ABV. VLV.	AL	T	A
AE-40 MEDIA TK VENT	ATTACH TO STACK NEAR VALVE	AL	T	A
AE-41 SEWAGE HLDG TK VENT	ATTACH TO STACK NEAR VALVE	AL	T	A
AE-42 AFFF TK. VENT.	TIE WRAP TO PIPE	AL	A	A
AE-44 F.O. TK.2P VENT	TIE WRAP TO PIPE	AL	A	A
AE-50 SEACHEST VENT	ATTACH TO BWK NEAR VALVE	AL	T	A
AE-51 SEACHEST VENT	ATTACH TO HANDWHEEL	AL	C	C
AE-52 SEACHEST VENT	ATTACH TO HANDWHEEL	AL	C	C
AE-53 SEACHEST BLWDN	ATTACH TO HANDWHEEL	AL	C	E
AE-54 F.O. TK No. 3 VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-55 F.O. TK No. 3 VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-56 F.O. TK No. 2P VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P

Table 4. Vents, Etc. Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
AE-57 F.O. TK No. 2P VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-58 F.O. TK No. 2S VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-59 F.O. TK No. 2S VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-60 F.O. TK No. 2CL VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-61 F.O. TK No. 2CL VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-62 F.O. TK No. 1P VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-63 F.O. TK No. 1P VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-64 F.O. TK No. 1S VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
AE-65 F.O. TK No. 1S VENT FLOW INDICATOR	TIE WRAP TO VALVE	PH BK/WH	A	P
OVFL-22 FO. SPILL CONT. DR.	ATTACH TO SPILL CONTAINER	PH BK/WH	T	A
OVFL-23 F.O. SPILL CONT. DR.	ATTACH TO SPILL CONTAINER	PH BK/WH	T	A
OVFL-24 F.O. SPILL CONT. DR.	ATTACH TO SPILL CONTAINER	PH BK/WH	T	A
OVFL-25 F.O. SPILL CONT.DR	ATTACH TO SPILL CONTAINER	AL	T	A

Table 4. Vents, Etc. Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
OVFL-31 F.O. SPILL CONT.DR	ATTACH TO SPILL CONTAINER	AL	T	A
OVFL-32 F.O.SPILL CONT.DR	ATTACH TO SPILL CONTAINER	AL	T	A
OVFL-33 OILY WST-SPILL CONT.DR	ATTACH TO SPILL CONTAINER	AL	T	A
ST-4 BLST. TK. 2P SNDG.	ATTACH TO BHD ABV VALVE	AL	T	A
ST-5 BLST. TK. 2S SNDG.	ATTACH TO BHD ABV VALVE	AL	T	A
ST-6 F.O. TK. 3C SNDG	TIE WRAP TO PIPE	AL	A	A
ST-7 OILY DR.TK. SNDG	TIE WRAP TO PIPE	AL	A	A
ST-8 F.O. TK.2C SNDG	TIE WRAP TO PIPE	AL	A	A
ST-9 F.O. TK 1S SNDG	TIE WRAP TO PIPE	AL	A	A
ST-10 F.O. TK 1P SNDG	TIE WRAP TO PIPE	AL	A	A
ST-11 F.O. TK 2P SNDG	TIE WRAP TO PIPE	AL	A	A
ST-12 F.O. TK.2S SNDG	TIE WRAP TO PIPE	AL	A	A
ST-43 XDCR WELL SNDG	TIE WRAP TO PIPE	AL	A	A
ST-45 D.B. VOID P, FR.21 TO FR44 SNDG	TIE WRAP TO PIPE	AL	A	A
ST-46 D.B.VOID S, FR.21 TO FR.44 SNDG	TIE WRAP TO PIPE	AL	A	A
ST-47 BOW THRUSTER UPR VOID FR54-57 SNDG	TIE WRAP TO PIPE	AL	A	A

**Table 4. Vents, Etc. Label Plates (continued)**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
ST-66 F.O. TK 3C SNDG	TIE WRAP TO VALVE	AL	A	P
ST-67 F.O. TK 2C SNDG	TIE WRAP TO VALVE	PH BK/WH	A	P
ST-68 F.O. TK 1S SNDG	TIE WRAP TO VALVE	PH BK/WH	A	P
ST-69 F.O. TK 1P SNDG	TIE WRAP TO VALVE	PH BK/WH	A	P
ST-70 F.O. TK 2P SNDG	TIE WRAP TO VALVE	PH BK/WH	A	P
ST-71 F.O. TK 2S SNDG	TIE WRAP TO VALVE	PH BK/WH	A	P

Table 5. Refrigeration Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RFAC-21 COIL SOL VLV RI-25-2,4 COILS	ATTACH TO VALVE OR PIPE	AL	A	A
RFAC-22 COIL SOL VLV, R01-32-2	ATTACH TO BOTTOM NUT & BEND DOWN	AL	B	B
RFAC-23 TXV,R1-25-2,10.2 TON	ATTACH TO PANEL. ABOVE VLV	AL	T	B
RFAC-24 TXV,R1-25-2,3.5 TON	ATTACH TO PANEL. ABOVE VLV	AL	T	B
RFAC-25 TXV,R01-32-2	ATTACH TO PANEL. ABOVE VLV	AL	T	B
RFAC-26 HAND EXP	SCREW ON HANDWHEEL	AL	C	E
RFAC-27 HAND EXP	SCREW ON HANDWHEEL	AL	C	E
RFAC-28 HAND EXP	SCREW ON HANDWHEEL	AL	C	E
RFAC-29 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFAC-30 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFAC-31 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFAC-32 TXV/STNR/LLSV COV, R1-25-2, 4 COIL	SCREW ON HANDWHEEL	AL	C	E
RFAC-33 TXV/STNR/LLSV COV, R1-25-2, 4 COIL	SCREW ON HANDWHEEL	AL	C	E
RFAC-34 TXV COV, R01-32-2	SCREW ON HANDWHEEL	AL	C	E
RFAC-35 TXV COV,R01-32-2	SCREW ON HANDWHEEL	AL	C	E
RFAC-36 TXV/STNR/LLSV COV, R1-25-2, 8 COIL	SCREW ON HANDWHEEL	AL	C	E

Table 5. Refrigeration Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RFAC-37 TXV/STNR/LLSV COV, R1-25-2, 8 COIL	SCREW ON HANDWHEEL	AL	C	E
RFAC-38 4 COIL SUCT, COV R1-25-2	SCREW ON HANDWHEEL	AL	C	E
RFAC-39 LIQUID LINE CRVR CO.	SCREW ON HANDWHEEL	AL	C	E
RFAC-40 COIL SUCT COV, R01-32-2	SCREW ON HANDWHEEL	AL	C	E
RFAC-41 SUCT LINE CRSVR COV.	SCREW ON HANDWHEEL	AL	C	E
RFAC-42 8 COIL SUCT COV, R1-25-2	SCREW ON HANDWHEEL	AL	C	E
RFAC-43 LLSV, R1-25-2, 8 COIL	ATTACH TO BOTTOM NUT & BEND DOWN	AL	B	B
RFAC-44 RLF-CONDSR	ATTACH TO PIPE	AL	A	B
RFAC-45 RLF- CONDSR	ATTACH TO PIPE	AL	A	B
RFAC-48 WTR RGLTR	SCREW ON BONNET & BENT DOWN	AL	B	B
RFAC-49 WTR RGLTR	SCREW ON BONNET & BENT DOWN	AL	B	B
RFAC-50 WTR RGLTR	TAG TO SPRING ON THE VALVE	AL	B	B
RFAC-51 WTR RGLTR	TAG TO SPRING ON THE VALVE	AL	B	B
RFAC-54 COV-WTR RGLTR FREON	SCREW ON HANDWHEEL	AL	C	E
RFAC-55 COV-WTR RGLTR FREON	SCREW ON HANDWHEEL	AL	C	E
RFAC-56 TXV COV, R01-32-2	SCREW ON HANDWHEEL	AL	C	E

Table 5. Refrigeration Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RFAC-57 TXV, R01-32-2	ATTACH TO PANEL ABOVE VLV	AL	T	B
RFAC-58 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFAC-59 HAND EXP.V	SCREW ON HANDWHEEL	AL	C	E
RFSS-1 LLSV-CHILL BOX.	ATTACH TO BOTTOM NUT & BEND DOWN	AL	B	B
RFSS-2 LLSV-FRZ BOX	ATTACH TO BOTTOM NUT & BEND DOWN	AL	B	B
RFSS-3 TXV – CHILL BOX	ATTACH TO PANEL ABOVE VALVE	AL	T	B
RFSS-4 TXV-FRZ BOX	ATTACH TO PANEL ABOVE VALVE	AL	T	B
RFSS-4 EVAP PRESS RGLTR COV.	SCREW TO BONNETNUT & BEND DOWN	AL	B	B
RFSS-6 HAND EXP V	SCREW ON HANDWHEEL	AL	C	E
RFSS-7 HAND EXP V	SCREW ON HANDWHEEL	AL	C	E
RFSS-8 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFSS-9 EQL LINE	SCREW ON HANDWHEEL	AL	C	E
RFSS-11 TXV/ STNR / LLSV COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-12 TXV / STNR / LLSV COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-13 LIQUID LINE CRSVR CO	SCREW ON HANDWHEEL	AL	C	E

Table 5. Refrigeration Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RFSS-14 TXV/STNR/LLSV COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-15 TXV/STNR/LLSV COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-16 EVAP PRESS RGLTR COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-17 BYPASS-EVAP PRESS RGLTR	SCREW ON HANDWHEEL	AL	C	E
RFSS-18 EVAP PRESS RGLTR COV.	SCREW ON HANDWHEEL	AL	C	E
RFSS-19 COV-FRZ BOX COIL SUCT	SCREW ON HANDWHEEL	AL	C	E
RFSS-20 SUCTION LINE CRVSR COV	SCREW ON HANDWHEEL	AL	C	E
RFSS-46 RLF-CONDSR	TAG TO PIPE	AL	A	B
RFSS-47 RLF-CONDSR	TAG TO PIPE	AL	A	B
RFSS-52 COV-WTR RGLTR FREON	SCREW ON HANDWHEEL	AL	C	E
RFSS-53 COV-WTR RGLTR FREON	SCREW ON HANDWHEEL	AL	C	E



Table 6. Firemain and General Service Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FM-1 SEA SUCT, F.F. PMP.	ATTACH TO VALVE BODY	AL	A	A
FM-2 SEA SUCT. FIRE/G.S. & BLST PMPS.	ATTACH TO VALVE BODY	AL	A	A
FM-3 S.W. TO BILGE/BLST. PMPS.	ATTACH TO HANDWHEEL	AL	C	D
FM-4 EMER BILGE SUCT	ATTACH TO HANDWHEEL	AL	C	D
FM-6 FIRE/G.S. PMP No.1 SUCT	TIE WRAP TO HANDLE	AL	A	A
FM-7 FIRE/G.S. PMP No. 2 SUCT	TIE WRAP TO HANDLE	AL	A	A
FM-8 EMG. BILGE OVBD	ATTACH TO HANDWHEEL	AL	C	D
FM-9 GENL.SERV.PRESS. RED.VLV.CO.	ATTACH TO HANDWHEEL	AL	C	D
FM-10 GENL.SERV. PRESS.RED.VLV. MAN. BYPASS	ATTACH TO HANDWHEEL	AL	C	D
FM-13 F.F.TO F.M. CRSVR	ATTACH TO HANDWHEEL	AL	C	D
FM-14 FIRE / G.S. PMP. No.2 DISCH. TO FM.	ATTACH TO HANDWHEEL	AL	C	D
FM-15 FIRE / G.S. PMP. No.2 DISCH. TO GS.	ATTACH TO HANDWHEEL	AL	C	D
FM-16 FIRE / G.S. PMP No.1 DISCH TO FM	ATTACH TO HANDWHEEL	AL	C	D
FM-17 FIRE / G.S. PMP No.1 DISCH TO GS	ATTACH TO HANDWHEEL	AL	C	D
FM-30 GENL SERV PRESS RED VLV. SET AT 60 PSI	ATTACH TO VALVE BODY	AL	A	A

Table 6. Firemain and General Service Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FM-31 OVBD. DISCH	TIE WRAP TO HANDLE	AL	A	A
FM-52 FM TO ARMS CONT RM	ATTACH TO VLV HANDLE NUT	AL	B	B
FM-54 FM DR	ATTACH TO VLV	AL	B	B
FM-55 F STA No. 4	ATTACH TO PIPE	AL	A	A
FM-56 FSTA No. 9	ATTACH TO PIPE	AL	A	A
FM-57 F STA No. 7	ATTACH TO PIPE	AL	A	A
FM-58 F STA No.12	ATTACH TO PIPE	AL	A	A
FM-59 F STA No. 10	ATTACH TO PIPE	AL	A	A
FM-60 COV AFFF MON	ATTACH TO HANDWHEEL	AL	C	D
FM-61 COV AFFF MON	ATTACH TO HANDWHEEL	AL	C	D
FM-62 COV AFFF MON	ATTACH TO HANDWHEEL	AL	C	D
FM-84 AFFF TK SUCT	TIE WRAP TO PIPE	AL	A	A
FM-86 RLF SET AT 180 PSI	TIE WRAP TO PIPE	AL	A	A
FM-88 AFFF TK FILL	STICK ON SIDE SHELL FWD OF VLV	AL	T	A
FM-90 FIRE/G.S. PUMP No. 1 SUCT.	TIE WRAP TO VALVE HANDLE & REMOTE HHANDLE ON AMS 2 TK TOP PORT FR18/19	AL	A	A
FM-91 FIRE/G.S. PUMP No. 1 SUCT.	TIE WRAP TO VALVE HANDLE & REMOTE HHANDLE ON AMS 2 TK TOP PORT FR18/19	AL	A	A

Table 6. Firemain and General Service Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FM-92 FIRE/G.S. PUMP No. 2 SUCT	TIE WRAP TO VALVE HANDLE & REMOTE HANDLE ON AMS 2 TK TOP PORT FR18/19	AL	A	A
FM-93 FM DR	ATTACH TO VLV	AL	B	B
GS-12 GENL SERV PRESS RED VLV CO	ATTACH TO HANDWHEEL	AL	C	D
GS-32 GS OVBD DISCH	ATTACH TO PIPE OR VLV.	AL	A	A
GS-33 A/C COND No.1 SPLY	ATTACH TO HANDWHEEL	AL	C	D
GS-34 A/C COND No.2 SPLY	ATTACH TO HANDWHEEL	AL	C	D
GS-36 WTR RGLTR COV	ATTACH TO VLV HANDLE	AL	B	B
GS-37 WTR RGLTR COV	ATTACH TO VLV HANDLE	AL	B	B
GS-38 RETR COND No.1 SPLY	ATTACH TO HANDWHEEL	AL	C	D
GS-39 RETR COND No.2 SPLY	ATTACH TO HANDWHEEL	AL	C	D
GS-40 SW TO RO No. 1	ATTACH TO HANDWHEEL	AL	C	D
GS-41 SW TO RO No. 2	ATTACH TO HANDWHEEL	AL	C	D
GS-42 COV-ST TUBE SEAL P	ATTACH TO HANDWHEEL	AL	C	D
GS-43 COV-ST TUBE SEAL S	ATTACH TO HANDWHEEL	AL	C	D
GS-44 BILGE EDUC.	ATTACH TO VLV STEM	AL	B	B
GS-45 BILGE EDUC	ATTACH TO HANDWHEEL	AL	C	D

Table 6. Firemain and General Service Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GS-46 BILGE EDUC	ATTACH TO VLV STEM	AL	B	B
GS-47 BILGE EDUC	ATTACH TO VLV STEM	AL	B	B
GS-48 WTR. RGLTR COV	ATTACH TO VLV STEM	AL	B	B
GS-49 WTR RGLTR COV	ATTACH TO VLV STEM	AL	B	B
GS-50 SW OUT RO No.1	ATTACH TO VALVE OR PIPE	AL	A	A
GS-51 SW OUT RO No. 2	ATTACH TO VALVE OR PIPE	AL	A	A
GS-67 WTR RGLTR COV	ATTACH TO HANDWHEEL	AL	C	B
GS-68 WTR RLTR COV	ATTACH TO HANDWHEEL	AL	C	B
GS-69 WTR RGLTR COV	ATTACH TO HANDWHEEL	AL	C	B
GS-70 WTR RGLTR COV	ATTACH TO HANDWHEEL	AL	C	B
GS-71 BYP WTR RGLTR	ATTACH TO HANDWHEEL	AL	C	D
GS-72 BYP WTR RGLTR	ATTACH TO HANDWHEEL	AL	C	D
GS-73 GEN SERV PRESS RED VLV SET AT 15 PSI	ATTACH TO VLV	AL	B	B
GS-74 OILY WTR SEP. SPLY	ATTACH TO VLV	AL	B	B
GS-75 TOW WN HYD OIL CLR SPLY	ATTACH TO VLV	AL	B	B
GS-76 SOL VLV – TOW WN HYD OIL CLR	STICK TO HYD. OIL RESV. AFT OF VLV	AL	T	B

Table 6. Firemain and General Service Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GS-77 HYD OIL CLR DISCH	ATTACH TO HANDWHEEL	AL	C	D
GS-82 BYP WTR RGLTR	ATTACH TO HANDWHEEL	AL	C	D
GS-83 BYP WTR RGLTR	ATTACH TO HANDWHEEL	AL	C	D
GS-106 DR ST TUBE SEAL	ATTACH TO HANDWHEEL	AL	C	D
GS-107 DR ST TUBE SEAL	ATTACH TO HANDWHEEL	AL	C	D
GS-108 SW SPLY TO EOS AIR COND.	ATTACH TO HANDLE NUT	AL	B	B
GS-111 FF PMP PRM EDUCTOR DISCH	ATTACH TO HANDWHEEL	AL	C	D
GS-112 ST TUBE AIR RLSE ASSY COV STBD	ATTACH TO VALVE OR PIPE	AL	A	A
GS-113 ST TUBE AIR RLSE ASSY COV PORT	ATTACH TO VALVE OR PIPE	AL	A	A
GS-114 RO SW SPLY PRESS REO VLV SET AT 30 PSI	ATTACH TO VALVE OR PIPE	AL	A	A
WDCM-11 WDCM SPLY	ATTACH TO HANDLE NUT	AL	B	B
WDCM-53 DR WDCM	ATTACH TO PIPE	AL	A	A

Table 7. Drainage Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PD-1 WASTE WTR. OVBD	TIE WRAP TO VALVE BODY	AL	A	A
PD-2 WASTE WTR. OVBD	TIE WRAP TO VALVE BODY	AL	A	A
PD-3 WASTE WTR TO SEW. HLD. TK	TIE WRAP TO VALVE BODY	AL	A	A
PD-4 WASTE WTR TO SEW HLD. TK	TIE WRAP TO VALVE BODY	AL	A	A

Table 8. Bilge and Ballast Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
BB-9 OVBD. DISCH. BILGE EDUC	TIE WRAP TO PIPE	AL	A	A
BB-11 OVBD. DISCH. BILGE EDUC.	TIE WRAP TO VLV BODY OR PIPE	AL	A	A
BB-12 BLST. TK. No. 1 SUCT. COV	TIE WRAP TO PIPE	AL	A	A
BB-13 S.W. TO BLST. PMPS	TIE WRAP TO PIPE	AL	A	A
BB-25 BLST MANF TO PMPS OUTLT	TIE WRAP TO VLV BODY OR PIPE	AL	A	A
BB-26 B/B PMP No. 1 BLST. SUCT	TIE WRAP TO VLV BODY OR PIPE	AL	A	A
BB-27 B/B PMP. No.2 BLST. SUCT	TIE WRAP TO VLV BODY OR PIPE	AL	A	A
BB-28 BILGE –ENG. RM. EMER SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-29 B/B PMP No. 1 BILGE SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-30 B/B PMP. No. 2 BILGE SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-32 B/B PMP No.2 OVBD DISCH	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-33 B/B PMP. No.2 BLST TO MANF.	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-34 B/B PMP No. 1 OVBD DISCH.	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-35 B/B PMP No.1 BLST. TO MANF.	ATTACH TO HANDWHEEL NUT	AL	C	D
BB-36 BILGE EDUCT SUCT C.O.V..	ATTACH TO HANDLE NUT	AL	B	B
BB-37 BILGE EDUCT SUCT COV	ATTACH TO HANDLE NUT	AL	B	B

Table 8. Bilge and Ballast Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
BB-39 BILGE SUCT-A.M.S. No. 1 PORT	ATTACH TO HANDWHEEL	AL	C	D
BB-40 BILGE SUCT-A.M.S. NO. 1 STBD	ATTACH TO HANDWHEEL	AL	C	D
BB-41 BILGE SUCT-E.R. PORT	ATTACH TO HANDWHEEL	AL	C	D
BB-42 BILGE SUCT-E.R. STBD	ATTACH TO HANDWHEEL	AL	C	D
BB-43 BILGE SUCT- PORT SHAFT ALLEY	ATTACH TO HANDWHEEL	AL	C	D
BB-44 BILGE SUCT- STBD SHAFT ALLEY	ATTACH TO HANDWHEEL	AL	C	D
BB-45 BLST TK No.2S FILL	ATTACH TO VALVE OR PIPE	AL	A	A
BB-46 BLST TK No.2S SUCT	ATTACH TO VALVE OR PIPE	AL	A	A
BB-47 BLST TK No.2P FILL	ATTACH TO VALVE OR PIPE	AL	A	A
BB-48 BLST TK No.2P SUCT	ATTACH TO VALVE OR PIPE	AL	A	A
BB-49 BLST TK No.1 FILL	ATTACH TO VALVE OR PIPE	AL	A	A
BB-50 BLST TK No.1 SUCT	ATTACH TO VALVE OR PIPE	AL	A	A
BB-56 BILGE SYS PRM EDUCTOR DISCH	ATTACH TO HANDWHEEL	AL	C	D
BALLAST TANK No. 1 FWD	ATTACH TO GAUGE	PH WH/BK		J
BALLAST TANK No. 2 PORT AFT	ATTACH TO GAUGE	PH WH/BK		J
BALLAST TANK No. 2 STB,D AFT	ATTACH TO GAUGE	PH WH/BK		J



Table 9. Potable Water Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PW-10 POT. WTR. TK. PORT DR.	ATTACH TO HANDLE NUT	AL	B	B
PW-11 POT. WTR. TK. STBD. DR.	ATTACH TO HANDLE NUT	AL	B	B
PW-12 POT. WTR. TK. PORT FILL	ATTACH TO BHD BELOW VALVE	AL	T	A
PW-13 POT. WTR. TK. STBD FILL	ATTACH TO BHD BELOW VALVE	AL	T	A
PW-14 POT. WTR. TK. PORT SUCT	TIE WRAP TO PIPE	AL	A	A
PW-15 POT. WTR. TK. STBD SUCT	TIE WRAP TO PIPE	AL	A	A
PW-16 C.O.V. – POT. WTR. PMP. No. 1 SUCT	TIE WRAP TO PIPE	AL	A	A
PW-17 C.O.V. – POT. WTR. PMP. No. 2 SUCT	TIE WRAP TO PIPE	AL	A	A
PW-18 HYDRO. PNEU TK INLET	ATTACH TO HANDLE NUT	AL	B	B
PW-19 C.W. TO W.C.	ATTACH TO HANDLE NUT	AL	B	B
PW-20 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-21 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-22 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-23 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-24 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-25 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PW-26 C.W. TO W.C.	TIE WRAP TO PIPE INSULATION	AL	A	A
PW-35 M.E. KEEL CLR WTR FILL CONN.	ATTACH TO HANDLE NUT	AL	B	B
PW-36 BYPASS – BROMINATOR	ATTACH TO HANDLE NUT	AL	B	B
PW-37 BROMINATOR INLET	ATTACH TO HANDLE NUT	AL	B	B
PW-38 BROMINATOR OUTLET	ATTACH TO HANDLE NUT	AL	B	B
PW-39 ENG.FILL CONN. STBD	ATTACH TO HANDLE NUT	AL	B	B
PW-40 ENG. FILL CONN. PORT	ATTACH TO HANDLE NUT	AL	B	B
PW-41 BOW THRUSTER PUMP DRIVE FILL CONN	ATTACH TO VALVE OR PIPE	AL	A	A
PW-42 HW RECIRC. PMP. SUCT.	TIE WRAP TO PIPE AT VALVE	AL	A	A
PW-43 RECIRC TO H.W. HEATER	TIE WRAP TO PIPE AT VALVE	AL	A	A
PW-44 RECIRC TO H.W. HEATER	TIE WRAP TO PIPE AT VALVE	AL	A	A
PW-54 DK.WASH DN.	ATTACH TO HANDLE NUT	AL	B	B
PW-73 PRESS. RDC. VLV. SET AT 20 P.S.I.	ATTACH TO TOP OF VALVE	AL	B	B
PW-74 FLOW CONT.- SET AT 1 G.P.M.	TIE WRAP TO PIPE AFT OF VALVE	AL	A	A
PW-75 POT WTR. DK FILL	ATTACH TO HANDWHEEL NUT	AL	C	D
PW-76 C.O.V. POT.WTR.PMP. No.1 DISCH.	ATTACH TO HANDWHEEL	AL	C	D

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PW-77 C.O.V. POT. WTR. PMP. No. 2 DISCH.	ATTACH TO HANDWHEEL	AL	C	D
PW-78 C.O.V. HYDR.PNEU TK. OUTLET	ATTACH TO HANDWHEEL	AL	C	D
PW-79 POT. WTR. TO H.W. HTR.	ATTACH TO HANDWHEEL	AL	C	D
PW-80 POT.WTR. TO H.W. HTR.	ATTACH TO HANDWHEEL	AL	C	D
PW-81 H.W. HTR OUT	ATTACH TO HANDWHEEL	AL	C	D
PW-82 H.W. HTR OUT	ATTACH TO HANDWHEEL	AL	C	D
PW-83 POT.WTR.TO MN. DK. WSH. DN	ATTACH TO HANDWHEEL	AL	C	D
PW-84 POT. WTR.TO BROMINATOR	ATTACH TO HANDWHEEL	AL	C	D
PW-85 C.O.V.-RO. No.2 POT. WTR. DISCH.	ATTACH TO HANDWHEEL	AL	C	D
PW-86 C.O.V. -RO.No.1 POT. WTR. DISCH.	ATTACH TO HANDWHEEL	AL	C	D
PW-88 DK.WSH.DN.	ATTACH TO PILOTHSE FRONT EXTERNALLY	PH WH/BK		J
PW-93 C.W. TO ICE MAKER	ATTACH TO HANDWHEEL	AL	C	E
PW-94 DK. WSH.DN.	ATTACH TO PILOTHSE AFT EXTERNALLY	PH WH/BK		J
PW-95 SCREEN WSH	DECKHEAD LINING	PH WH/BK	A	J
PW-96 COFFEE MACHINE	TIE WRAP TO VALVE	PH WH/BK		P 3/8" H LETTERS

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
OPEN            CLOSE	DECKHEAD LINING	PH WH/BK		Y (2" x 2")
RO-PG-1-2	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-1-3	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-1-4	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-1-5	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-2-2	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-2-3	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-2-4	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO-PG-1-5	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		¾" H x 1 ½"W VENDOR SUPPLY
RO # 1	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		1" H x 2" W VENDOR SUPPLY

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RO # 2	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO # 1	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO # 2	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-FM-1-1 RO-FM-1-2	ROWPU FLOW CONTROL PANEL No. 1	PH WH/BK		3/4" H x 2-1/4" W VENDOR SUPPLY
RO-FM-2-1 RO-FM-2-2	ROWPU FLOW CONTROL PANEL No. 2	PH WH/BK		3/4" H x 2-1/4" W VENDOR SUPPLY
RO-PG-1-1	ROWPU WIRE TO PRE-FILTER GAUGE No.1	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-PG-2-1	ROWPU WIRE TO PRE-FILTER GAUGE No.2	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-PG-2	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-PG-3	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-V-11	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RO-V-12	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-V-13	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-V-14	ROWPU MEDIA FILTER PANEL- WIRE TO VALVE	PH WH/BK		1" H x 2" W VENDOR SUPPLY
RO-SW-2-2	ROWPU SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SW-2-3	ROWPU SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
PO-BFP	ROWPU WIRE TO PREVENTER	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-1	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-2	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-3	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RO-V-4	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-5	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-6	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-7	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-8	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-9	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-10	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-15	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RO-V-1-1	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-1-2	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-1-3	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-1-4	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-1-5	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-2-1	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-2-2	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-2-3	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY



**Table 9. Potable Water Label Plates (continued)**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
RO-V-2-4	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-V-2-5	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CV-1-1	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CV-1-2	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CV-2-1	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CV-2-2	ROWPU WIRE TO VALVE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-REG	ROWPU WIRE TO REGULATOR	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-PR-1	ROWPU WIRE TO GAUGE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY

Table 9. Potable Water Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
RO-PR-2	ROWPU WIRE TO GAUGE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CB-1-1	ROWPU WIRE TO FILTER	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-CB-2-1	ROWPU WIRE TO FILTER	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-MEM-1-1	ROWPU WIRE TO MEMBRANE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-MEM-1-2	ROWPU WIRE TO MEMBRANE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-MEM-2-1	ROWPU WIRE TO MEMBRANE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-PG-1	ROWPU WIRE TO GAUGE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SP-1-1	ROWPU WIRE TO PROBE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY

**Table 9. Potable Water Label Plates (continued)**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
RO-SP-2-1	ROWPU WIRE TO PROBE	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SW-1-1	ROWPU WIRE TO SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SW-1-2	ROWPU WIRE TO SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SW-1-3	ROWPU WIRE TO SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY
RO-SW-2-1	ROWPU WIRE TO SWITCH	PH WH/BK		B 3/8" H LETTERS VENDOR SUPPLY

Table 10. Fuel Oil Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FO-1 F.O. DAY TK. FILL	TIE WRAP TO VALVE BODY	AL	A	A
FO-2 F.O. DAY TK. FILL	TIE WRAP TO VALVE BODY	AL	A	A
FO-3 DK. FILL CONN	TIE WRAP TO VALVE BODY	AL	A	A
FO-4 DK. FILL CONN	TIE WRAP TO VALVE BODY	AL	A	A
FO-5 F.O.DAY TK EMERG FILL	TIE WRAP TO VALVE BODY	AL	A	A
FO-6 C.O.V. - F.O. XFER PMP No.1 SUCTION	ATTACH TO VALVE BODY	AL	B	B
FO-7 C.O.V. - F.O. XFER PMP No.2 SUCTION	ATTACH TO VALVE BODY	AL	B	B
FO-8 C.O.V.- F.O. XFER PMP No.1 DISCHARGE	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-9 C.O.V.- F.O. XFER PMP No. 2 DISCHARGE	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-11 F.O. TO E.D.G. DAY TK	ATTACH TO HANDLE NUT	AL	B	B
FO-12 E.D.G. DAY TK FILL	ATTACH TO HANDLE NUT	AL	B	B
FO-13 F.O. SERV. SUCT. PORT	ATTACH TO VALVE BODY	AL	B	B
FO-14 F.O. SERV CRSVR	ATTACH TO VALVE BODY	AL	B	B
FO-15 F.O. SERV. SUCT. STBD	ATTACH TO VALVE BODY	AL	B	B
FO-16 F.O. FLTR / WATER SEP INLET. COV	ATTACH TO VALVE BODY	AL	B	B

Table 10. Fuel Oil Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FO-17 F.O. FLTR / WATER SEP OUTLET. COV	ATTACH TO VALVE BODY	AL	B	B
FO-18 F.O. FILL CONN PORT	ATTACH TO BHD ABV VLV	AL	T	A
FO-19 F.O. SPLY TO PORT ME No. 2	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-20 F.O. SPLY TO STBD ME No. 1	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-21 F.O. SPLY TO S.S.D.G. No.1	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-22 F.O. SPLY TO S.S.D.G. No.2	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-30 F.O. SPLY TO BOW THRUSTER ENG	ATTACH TO HANDWHEEL	AL	C	D
FO-31 F.O. SPLY TO PMP DRV ENG	ATTACH TO HANDWHEEL	AL	C	D
FO-32 F.O. SPLY TO ENG	ATTACH TO HANDLE NUT	AL	B	B
FO-33 F.O. RTN TO DAY TK. PORT	ATTACH TO HANDLE NUT	AL	B	B
FO-34 F.O. RTN CRSVR	ATTACH TO HANDLE NUT	AL	B	B
FO-35 F.O. RTN TO DAY TK. STBD	ATTACH TO HANDLE NUT	AL	B	B
FO-36 F.O. RTN RLF-SET AT 10 P.S.I.	TIE WRAP TO VCV OR ATTACH TO NUT	AL	B	B
FO-37 F.O. RTN RLF- SET AT 10 P.S.I.	TIE WRAP TO VCV OR ATTACH TO NUT	AL	B	B

Table 10. Fuel Oil Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FO-38 EMG GEN DY TK	TIE WRAP TO VCV OR ATTACH TO NUT	AL	B	B
FO-39 F.O. FILL CONN. STBD	ATTACH TO BHD ABV VLV	AL	T	A
FO-40 F.O. DAY TK DR PORT	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-41 F.O.DAY TK DR. STBD	ATTACH TO HANDWHEEL NUT	AL	C	D
FO-42 F.O. FLTR / WATER SEP BYPASS COV	ATTACH TO VALVE BODY	AL	B	B
FO-43 PMP No. 1 PRESS GAUGE				
FO-47 F.O.TK 1S FILL	ATTACH TO VALVE BODY	AL	B	B
FO-48 F.O. TK 1P FILL	ATTACH TO VALVE BODY	AL	B	B
FO-49 F.O. TK 2S FILL	ATTACH TO VALVE BODY	AL	B	B
FO-50 F.O. TK 2P FILL	ATTACH TO VALVE BODY	AL	B	B
FO-51 F.O. TK 3C FILL	ATTACH TO VALVE BODY	AL	B	B
FO-52 F.O. TK 2C FILL	ATTACH TO VALVE BODY	AL	B	B
FO-53 F.O. TK 4S FILL	ATTACH TO VALVE BODY	AL	B	B
FO-54 F.O. TK 4P FILL	ATTACH TO VALVE BODY	AL	B	B
FO-55 F.O. TK 1S SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-56 F.O. TK 1P SUCT	ATTACH TO VALVE BODY	AL	B	B

Table 10. Fuel Oil Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FO-57 F.O.TK 2S SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-58 F.O. TK 2P SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-59 F.O. TK 3C SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-60 F.O. TK 2C SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-61 F.O. TK 4S SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-62 F.O. TK 4P SUCT	ATTACH TO VALVE BODY	AL	B	B
FO-64 E.D.G. DAY TK. VENT	ATTACH TO VALVE BODY	AL	A	A
FO-65 F.O. TK 4P SUCT / FILL				
FO-66 F.O. TK 4S SUCT / FILL				
FO-67 F.O. SUCT FROM DAY TK				
FO-68 F.O. EMER GEN DY TK DR S				
FO-69 F.O. SAMPLE PT	ATTACH TO VALVE BODY	AL		B

Table 11. Compressed Air Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CA-1 COV-COMPR DISCH	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-2 COV-COMPR DISCH	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-3 STG AIR TK OUT	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-4 STG AIR TK OUT	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-5 STG AIR TO BOW THRUSTER ENG	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-6 STG AIR TO PMP DR ENG	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-7 STG AIR TO DSL GEN	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-8 STG AIR TO ME #2	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-9 STG AIR TO ME #1	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-10 WSTL AIR RCVR	TAG TO HANDWHEEL	AL	B	B
CA-11 STG AIR TK INL	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-12 STG AIR TK INL	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-13 SVCE AIR TK INL	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-14 SVCE AIR TK OUT	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-15 AIR TOOL CONN	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-16 AIR TOOL CONN	ATTACH TO VLV HANDWHEEL	AL	C	D
CA-17 AIR TOOL CONN	ATTACH TO VLV HANDWHEEL	AL	C	D



Table 11. Compressed Air Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CA-18 AIR TOOL CONN	ATTACH TO STEM	AL	B	B
CA-19 AIR TOOL CONN	ATTACH TO HANDWHEEL	AL	C	D
CA-20 AIR TOOL CONN	ATTACH TO HANDWHEEL	AL	C	D
CA-21 WEA TOOL CONN	ATTACH TO HANDWHEEL	AL	C	D
CA-22 SEACHEST BLWT	ATTACH TO HANDWHEEL	AL	C	D
CA-23 SEACHEST BLWT	ATTACH TO HANDWHEEL	AL	C	D
CA-24 PRV- SET AT 125 PSI	ATTACH TO HANDWHEEL	AL	C	D
CA-25 PRV-SET AT 125 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-26 PRV-SET AT 125 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-27 PRV-SET AT 200 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-28 PRV-SET AT 200 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-29 PRV – SET AT 125 PSI	ATTACH TO VALVE	AL	A	A
CA-30 PRV – SET AT 25 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-31 PRV – SET AT 25 PSI	ATTACH TO SCREW ON BONNET	AL	B	B
CA-32 AUTO DR – STG AIR TK	ATTACH TO SCREW ON BONNET	AL	B	B
CA-33 AUTO DR – STG AIR TK	ATTACH TO SCREW ON BONNET	AL	B	B
CA-34 AUTO DR – SVCE AIR TK	ATTACH TO SCREW ON BONNET	AL	B	B

Table 11. Compressed Air Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CA-35 RLF – SET AT 275 PSI	TIE WRAP TO PIPE	AL	A	A
CA-36 RLF – SET AT 275 PSI	TIE WRAP TO PIPE	AL	A	A
CA-37 RLF – SET AT 137 PSI	TIE WRAP TO PIPE	AL	A	A
CA-38 RLF – SET AT 137 PSI	TIE WRAP TO PIPE	AL	A	A
CA-39 SVCE AIR TK INL	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-40 SVCE AIR TK INL	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-41 BYP RDC STA	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-43 WSTL AIR MOISTURE SEPARATOR DR	DECKHEAD LINING	PH WH/BK		K
CA-44 RLF – SET AT 300 PSI	TIE WRAP TO PIPE	AL	A	B
CA-45 RLF—SET AT 300 PSI	TIE WRAP TO PIPE	AL	A	B
CA-46 STG AIR TK DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-47 STG AIR TK DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-48 SVCE AIR TK DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-49 AUTO DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-50 AUTO DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-51 AUTO DR	ATTACH TO SCREW ON BONNET	AL	B	B
CA-56 COV – OILY BILGE PMP SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D

Table 11. Compressed Air Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CA-57 AIR TOOL CONN	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-61 STARTING AIR GAUGE-COV	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-62 STARTING AIR GAUGE-COV	ATTACH TO HANDWHEEL NUT	AL	C	D
CA-66 SVCE AIR TO STERN TUBE	ATTACH TO SCREW ON BONNET	AL	B	B
CA-67 SVCE AIR TO STERN TUBE	ATTACH TO SCREW ON BONNET	AL	B	B
CA-70 WSTL AIR RCVR DR	DECKHEAD LINING	PH WH/BK		J
CA-71				
CA-72				
CA-73 SVCE AIR TO FF PMP PRM EDUCTOR	ATTACH TO HANDWHEEL	AL	C	D
CA-74 SVCE AIR TO BILGE SYS PRM EDUCTOR	ATTACH TO HANDWHEEL	AL	C	D
CA-80 SVCE AIR TO WSTL	TIE WRAP TO PIPE	AL	A	A
CA-81 SVCE AIR TO WSTL	TIE WRAP TO PIPE	AL	A	A
CA-85 SEACHEST BLWT	ATTACH TO HAND WHEEL	AL	C	D
CA-86 PRV-SET AT 25PSI	ATTACH TO SCREWON BONNET	AL	B	B
CA-87 COV-COMPR DISCH	TIE WRAP TO PIPE	AL	A	A
CA-88 COV-COMPR DISCH	TIE WRAP TO PIPE	AL	A	A
CA-89 COV-COMPR DISCH	TIE WRAP TO PIPE	AL	A	A

Table 11. Compressed Air Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CA-90 COV-COMPR DISCH	TIE WRAP TO PIPE	AL	A	A
CA-91 COV-COMPR DISCH	ATTACH TO HANDWHEEL	AL	C	D
CA-92 COV-COMPR DISCH	ATTACH TO HANDWHEEL	AL	C	D
CA-93 MOISTURE SEP DR	ATTACH TO HANDWHEEL	AL	C	D
CA-94 MOISTURE SEP DR	ATTACH TO HANDWHEEL	AL	C	D
CA-95 STG AIR TK PRESS	TIE WRAP TO VALVE	PH WH/BK	A	P
CA-96 STG AIR TK PRESS	TIE WRAP TO VALVE	PH WH/BK	A	P
CA-97	TIE WRAP TO PIPE	PH WH/BK	A	P
CA-98	TIE WRAP TO PIPE	PH WH/BK	A	P
CA-99	TIE WRAP TO PIPE	PH WH/BK	A	P
CA-100 PRESS RELIEF COMPRESSOR No.1	TIE WRAP TO PIPE	PH WH/BK	A	P
CA-101 PRESS RELIEF COMPRESSOR No. 2	TIE WRAP TO PIPE	PH WH/BK	A	P

Table 12. Steering Hydraulic Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
SH-1 C.O.V. –RUD. MOT. No. 1 PRESS / RTN	ATTACH TO HANDLE NUT	AL	B	B
SH-2 C.O.V.-RUD MOT. No.2 PRESS / RTN	ATTACH TO HANDLE NUT	AL	B	B
SH-3 C.O.V. –RUD. MOT. No. 1 PRESS / RTN	ATTACH TO HANDLE NUT	AL	B	B
SH-4 C.O.V. – RUD. MOT. No.2 PRESS / RTN	ATTACH TO HANDLE NUT	AL	B	B
SH-5 RUD. MOT NO. 1 SUMP	ATTACH TO HANDLE NUT	AL	B	B
SH-6 RUD. MOT No. 2 SUMP	ATTACH TO HANDLE NUT	AL	B	B
SH-7 HAND PMP C.O.V.	ATTACH TO HANDLE NUT	AL	B	B
SH-8 HAND PMP C.O.V.	ATTACH TO HANDLE NUT	AL	B	B
SH-9 OIL TO RSVR	ATTACH TO HANDLE NUT	AL	B	B
SH-10 OIL TO RSVR	ATTACH TO HANDLE NUT	AL	B	B
STEERING HYDRAULIC OIL RESERVOIR	TANK SIDE	PH WH/BK		F

Table 13. Towing Machine and Central Hydraulics Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CH-9 FLW. CONT. – CRANE	STICK TO TOP PLATE	AL	B	B
CH-10 FLW.CONT. – CAPSTN	STICK TO BOTTOM OF VLV	AL	T	A
CH-11 FLW. CONT. – ANCH. WINDLASS	ATTACH TO BHD ABV VLV	AL	T	A
CH-19 DIR. CONT.– TOW PIN No.1	STICK TO VLV PLATE	AL	T	A
CH-20 DIR. CONT. – TOW PIN No.2	STICK TO VLV PLATE	AL	T	A
CH-21 DIR. CONT. TOW PIN No.3	STICK TO VLV PLATE	AL	T	A
CH-22 DIR. CONT. TOW PIN No.4	STICK TO VLV PLATE	AL	T	A
CH-23 FLW. CONT. – TOW PIN 1 & 2	STICK TO VLV PLATE	AL	T	A
CH-24 FLW. CONT. – TOW PIN 3 & 4	STICK TO VLV PLATE	AL	T	A
CH-26 DRN CUT-OUT TOW WN HYDR	STICK TO VLV PLATE	AL	T	A
CH-27 RTN CUT-OUT TOW WN HYDR	STICK TO VLV PLATE	AL	T	A
CH-30 CAPSTAN ROTATION ISOLATION	TIE WRAP TO VALVE	PH WH/BK	A	P
CH-31 CAPSTAN ROTATION ISOLATION	TIE WRAP TO VALVE	PH WH/BK	A	P
CH-32 CAPSTAN DR TO RSVR	TIE WRAP TO VALVE	PH WH/BK	A	P
CH-33 HYD TK TAKE-OFF	TIE WRAP TO VALVE	PH WH/BK	A	P

Table 13. Towing Machine and Central Hydraulics Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CH-34 HYD TK TAKE-OFF	TIE WRAP TO VALVE	PH WH/BK	A	P
TH-1 C.O.V. – PMP DISCH. TO TOW WN. HYD	ATTACH TO HANDLE NUT	AL	C	D
TH-2 PRESS CRSVR CTL HYDR TOW WN HYDR	ATTACH TO HANDLE NUT	AL	C	D
TH-3 RETURN CRSVR. TO CENT. HYD	TIE WRAP TO PIPE	AL	A	A
TH-4 DRAIN CRSVR. TO CENT. HYD.	TIE WRAP TO PIPE	AL	A	A
TH-6 FLOW CONTROL	TIE WRAP TO VLE	PH WH/BK		P
TH-7 FLOW CONTROL	TIE WRAP TO VLE	PH WH/BK		P
TH-12 FLOW CONTROL	TIE WRAP TO VLE	PH WH/BK		P
TH-13 FLOW CONTROL	TIE WRAP TO VLE	PH WH/BK		P
TH-14 FLOW CONTROL	TIE WRAP TO VLE	PH WH/BK		P
TH-30 PORT TOW WINCH RETURN TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-31 STBD TOW WINCH RETURN TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-32 PORT TOW WINCH PRESS TO DRUM	BOND TO VALVE	PH WH/BK		K

Table 13. Towing Machine and Central Hydraulics Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
TH-33 STBD TOW WINCH PRESS TO DRUM	BOND TO VALVE	PH WH/BK		K
TH-34 PORT TOW WINCH DR TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-35 STBD TOW WINCH DR TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-36 PORT TOW WINCH DR TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-37 STBD TOW WINCH DR TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-38 PORT TOW WINCH BRAKE DR TO RSVR	BOND TO VALVE	PH WH/BK		K
TH-39 STBD TOW WINCH BRAKE DR TO RSVR	BOND TO VALVE	PH WH/BK		K



Table 14. Sewage and Oily Bilge Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
OB-1 OILY BILGE SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-2 OILY BILGE SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-3 OILY BILGE SUCT. SHAFT ALLEY	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-4 OILY BILGE SUCT. SHAFT ALLEY	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-5 OILY BILGE SUCT . ENG. RM.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-6 OILY BILGE SUCT. ENG. RM.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-7 OILY DR. TK. SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-8 OILY BILGE PMP DISCH. TO OILY WST.STOR. TK.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-9 OILY BILGE PMP. DISCH TO SHORE	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-10 OILY WTR. SEP. OVBD. DISCH	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-13 OILY WST. STOR. TK. TO OILY BILGE PMP. SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-14 C.O.V. – OILY BILGE PMP. SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-15 OILY WTR. SEP. INLET	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-16 OILY WASTE STOR. TK. SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-17 OILY WASTE STOR. INLET	ATTACH TO HANDWHEEL NUT	AL	C	D

Table 14. Sewage and Oily Bilge Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
OB-18 HOSE CONN.- OILY BILGE SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-19 HOSE CONN.- OILY BILGE SUCT	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-20 HOSE CONN.- OILY BILGE SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-21 HOSE CONN.- OILY BILGE SUCT.	ATTACH TO HANDWHEEL NUT	AL	C	D
OB-22 C.O.V. SHORE CONN.	ATTACH TO HANDWHEEL NUT	AL	C	D
OILY WASTE TANK	ATTACH TO GAUGE	PH WH/BK		J
SD-1 SEW. INLET TO MSD	ATTACH TO HANDLE NUT	AL	C	C
SD-2 SEW. OVBD. DISCH	ATTACH TO HANDLE NUT	AL	C	C
SD-3 SEW. DR. TO HOLD. TK	ATTACH TO HANDLE NUT	AL	C	C
SD-4 C.O.V. –SEW. DISCH. PMP. No. 2 SUCT	TIE WRAP TO VLV BODY	AL	A	A
SD-5 C.O.V. – SEW. DISCH. PMP. No. 1 SUCT	TIE WRAP TO VLV BODY	AL	A	A
SD-6 C.O.V. – SEW. DISCH. PMP.No. 2 DISCH	TIE WRAP TO VLV BODY	AL	A	A
SD-7 C.O.V. – SEW. DISCH. PMP. No. 1 DISCH	TIE WRAP TO VLV BODY	AL	A	A
SD-8 SEW. OVBD. DISCH	TIE WRAP TO VLV BODY	AL	A	A
SD-9 SEW. TO SH. CONN.	ATTACH TO BHD NEXT TO VALVE	AL	T	A

Table 14. Sewage and Oily Bilge Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
SD-10 SEW. SHORE CONN. PORT	ATTACH TO BHD ABOVE VALVE	AL	T	A
SD-11 SEW. SHORE. CONN. STBD	ATTACH TO HVAC DUCT BEHIND VALVE	AL	T	A
SD-12 MSD OVBD. DISCH. PUMP DISCH	ATTACH TO HANDLE NUT	AL	B	B
SD-13 SEW. OVBD. DISCH	ATTACH TO VLV OR STIFF, PLT. FWD OF VLV	AL	A	A
SEWAGE SETTLING TANK	ATTACH TO TANK TOP	PH WH/BK		F
SEWAGE HOLDING TANK	ATTACH TO GAUGE	PH WH/BK		J

Table 15. HVAC Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
UNIT HTR 2-8-1 PP5-4P-L	UNIT	AL	T	K
UNIT HTR 2-15-2 PP5-4P-A	UNIT	AL	T	K
EXH FANE 2-16-1 DP4-1P-P	UNIT	AL	T	K
UNIT HTR 2-21-1 PP1-4P-B	UNIT	AL	T	K
AIR COND UNIT R2-40-1 DP4-1L-D	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES RETURN AIR FROM EOS	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES SPLY SYS S01-27-1	UNIT	AL	T	K
UNIT HTR 2-53-2 PP4-4P-H	UNIT	AL	T	K
UNIT HTR 2-55-2 PP4-4P-F	UNIT	AL	T	K
NAT VENT TOWING GEAR LKR	GOOSENECK	AL	T	K
NAT EXH AMS 2 & EXH SYS E2-16-1	GOOSENECK	AL	T	K
AIR INTAKE FANS: S1-22-2, S1-22-4, R1-25-2	BHD	AL	T	K
PRE HTR 1-23-4 PP3-4P-A(2)	UNIT	AL	T	K
AMS 2 SPLY FAN S1-22-2 PP3-4P-C(2,3)	UNIT	AL	T	K
GALLEY SPLY FAN S1-22-4 PP2-4P-B(2)		PH WH/BK		
FILTER SPLY SYS S1-22-4	UNIT	AL	T	K
PRE HTR 1-23-2 PP2-4P-A(2)	UNIT	AL	T	K
FAN COIL UNIT R1-25-2 PP3-4P-H(2)	UNIT	AL	T	K
FILTER RECIRC SYS R1-25-2	UNIT	AL	T	K
RE HTR 1-25-2 PP3-4P-B(2)	UNIT	AL	T	K
T.RHR 1-31-1 FB3-1P-C	UNIT	AL	T	K
EXH FAN E1-37-1 PP2-4P-F(2)	UNIT	AL	T	K

Table 15. HVAC Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
T.RHR 1-31-2 FB3-1P-E	UNIT	AL	T	K
RETURN AIR RECIRC SYS R1-25-2	UNIT	AL	T	K
CONV HTR1-40-2 FB2-1P-G	UNIT	AL	T	K
T.RHR 1-42-1 FB3-1P-B	UNIT	AL	T	K
T.RHR 1-45-2 FB3-1P-A	UNIT	AL	T	K
CONV HTR 1-50-2 FB 2-1P-E	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES EXH SYS E01-44-2	UNIT	AL	T	K
T.RHR 1-48-1 FB3-1P-G	UNIT	AL	T	K
T.RHR 1-52-1 FB3-1P-H	UNIT	AL	T	K
CONV HTR 1-56-1 FB2-1P-K	UNIT	AL	T	K
CONV HTR 1-57-2 FB2-1P-L	1	AL	T	K
SPLY FAN S1-58-1 PP3-4P-G(2,3)	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES SPLY SYS S1-58-1	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES EXH SYS E1-62-2	UNIT	AL	T	K
EXH FAN E1-62-2 DP3-1P-M(2,3)	UNIT	AL	T	K
PRE HTR 1-57-1 PP3-4P-D(2)	UNIT	AL	T	K
FILTER SPLY SYS SI-58-1	UNIT	AL	T	K
AIR INTAKE SPLY FAN S01-27-2 & MN ENG COMB AIR	AFT STACK BHD	AL	T	K
AIR INTAKE SPLY FAN S01-27-2 & MN ENG COMB AIR	INBD STACK BHD	AL	T	K
AIR INTAKE SPLY FAN S01-27-1 & MN ENG COMB AIR	AFT STACK BHD	AL	T	K
AIR INTAKE SPLY FAN S01-27-1 & MN ENG COMB AIR	INBD STACK BHD	AL	T	K
NAT VENT EMERG GEN RM	INBD LONG BHD	AL	T	K

Table 15. HVAC Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
AIR INTAKE RECIRC SYS R01-32-2	INBD LONG BHD	AL	T	K
NAT VENT EMERG GEN RM	OTBD LONG BHD	AL	T	K
AIR EXH SERVES EXH SYS E1-37-1	OTBD LONG BHD	AL	T	K
NAT EXH AMS 1	OTBD LONG BHD	AL	T	K
AIR INTAKE SPLY SYS S01-45-2	OTBD LONG BHD	AL	T	K
NAT EXH CLOTHES DRYER	GOOSENECK	AL	T	K
NAT EXH LAUNDRY SP	GOOSENECK	AL	T	K
NAT VENT BOW THRUSTER SP	GOOSENECK	AL	T	K
NAT VENT BOW THRUSTER SP	GOOSENECK	AL	T	K
AIR INTAKE SPLY FAN S1-58-1	GOOSENECK	AL	T	K
NAT EXH BOSUNS STORES	GOOSENECK	AL	T	K
AIR EXH SERVES EXH SYS E1-62-2	GOOSENECK	AL	T	K
SPLY FAN S01-27-2 2S-4P-D(2,3)	UNIT	AL	T	K
SPLY FAN S01-27-1 1S-4P-F(2,3)	UNIT	AL	T	K
PRE HTR 01-31-2 PP3-4P-E(2)	UNIT	AL	T	K
FAN COIL UNIT R01-32-2 PP3-4P-J(2)	UNIT	AL	T	K
FILTER RECIRC SYS R01-32-2	UNIT	AL	T	K
RETURN AIR RECIRC SYS R01-32-2	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES RETURN AIR FROM 02 LVL	UNIT	AL	T	K
CONV HTR 01-36-2 FB2-1P-A	UNIT	AL	T	K
T. RHR 01-34-1 FB1-1P-A	UNIT	AL	T	K
RE-HTR 01-32-2 PP3-4P-F(2)	UNIT	AL	T	K
T. RHR 01-39-2 FB1-1P-H	UNIT	AL	T	K

Table 15. HVAC Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CONV HTR 01-44-2FB2-1P-B	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES EXH SYS EO1-44-2	UNIT	AL	T	K
T.RHR 01-41-1 FB1-1P-B	UNIT	AL	T	K
MAN AUTO FIRE DAMPER SERVES RECIRC SYS R01-32-2	UNIT	AL	T	K
CONV HTR 01-45-1 FB2-1P-C	UNIT	AL	T	K
T. RHR 01-50-2 FB1-1P-D	UNIT	AL	T	K
CONV HTR 01-51-2 FB2-1P-F	UNIT	AL	T	K
T. RHR 01-50-1 FB1-1P-E	UNIT	AL	T	K
CONV-HTR 01-51-1FB2-1P-J	UNIT	AL	T	
AMS I SPLY FAN S01-45-2 PP4-4P-G(2,3)	UNIT	AL	T	K
EXH FAN E01-44-2 PP3-4P-N(2)	UNIT	AL	T	K
AIR EXH 2 SERVES EXH FAN E02-27-2	FWD STACK BHD	AL	T	K
AIR EXH 1 SERVES EXH FAN E02-27-1	FWD STACK BHD	AL	T	K
EXH FAN 2 E02-27-2 2S-4P-E(2,3)	UNIT	AL	T	K
EXH FAN 1 E02-27-1 1S-4P-C(2,3)	UNIT	AL	T	K
RHTR 03-46-2 FB1-1P-J	UNIT	AL	T	K
RHTR 03-44-1 FB1-1P-L	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES SPLY SYS S01-27-1	UNIT	AL	T	K
MAN / AUTO FIRE DAMPER SERVES SPLY SYS S01-27-2	UNIT	AL	T	K
PILOTHOUSE O. H. A/C-UNIT PORT ACDP-2P-A	UNIT	PH BK/WH		2" W x 1-1/4" H
PILOTHOUSE O. H. A/C – UNIT STBDACDP-2P-B	UNIT	PH BK/WH		2" W x 1-1/4" H
RADIO ROOM A/C- UNIT ACDP-2P-C	UNIT	PH BK/WH		2" W x 1-1/4" H

Table 16. Compartments Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
MAIN DK CLEANING GEAR LKR	JOINER DOOR 19" AFT FR 61 INBD	AL	T	F
MAIN DK LINEN LOCKER	JOINER DOOR 21" FWD FR 57 INBD	AL	T	F
MAIN DK SANITARY SPACE	JOINER DOOR 7'—6" OFF C.L. AFT SIDE FR 54	AL	T	F
MAIN DK BOATSWAINS STORE	JOINER DOOR BKHD 54 AFT SIDE	AL	T	F
MAIN DK PASSAGEWAY	JOINER DOOR BKHD 54F WD SIDE	AL	T	F
MAIN DK ARMS CONTROL ROOM	JOINER DOOR FR 59 INBD SIDE	PH BK/WH		
MAIN DK LAUNDRY SPACE	JOINER DOOR FR57 FWD SIDE	AL	T	F
MAIN DK DAMAGE CONTROL LKR	JOINER DOOR 16" FWD FR 49 PORT, INBD	AL	T	F
MAIN DK CREW'S STATEROOM No.1	JOINER DOOR 16" AFT FR 54 STBD, INBD	AL	T	F
MAIN DK CREW'S STATEROOM No. 2	JOINER DOOR 16" AFT FR 50 STBD, INBD	AL	T	F
MAIN DK CREW'S STATEROOM No.3	JOINER DOOR 16" FWD FR 45 PORT, INBD	AL	T	F
MAIN DK SANITARY SPACE	JOINER DOOR 11-6" OFF C.L. FR 49 AFT SIDE	AL	T	F
MAIN DK CREW'S STATEROOM No.4	JOINER DOOR 39" FWD FR 40 STBD, INBD	AL	T	F
MAIN DK SANITARY SPACE	JOINER DOOR 15" FWD FR 40 6'-9 1/2" OFF C.L. PORT, INBD	AL	T	F
MAIN DK MESS / RECREATION SPACE	JOINER DOOR BKHD 40 PORT, FWD	AL	T	G
MAIN DK PASSAGEWAY	JOINER DOOR BKHD 40 PORT, AFT	AL	T	F
MAIN DK GALLEY	JOINER DOOR 34" AFT FR 40 18" OFF C.L.STBD, INBD	AL	T	F



Table 16. Compartments Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
MAIN DK GALLEY	JOINER DOOR 16" FWD FR 26 ON C.L. PORT	AL	T	F
MAIN DK THAW ROOM	ON DOOR FR 26 STBD FWD SIDE	AL	T	F
MAIN DK CHILL BOX	ON DOOR FR 24, STBD FWD SIDE	AL	T	F
MAIN DK WALK IN FREEZER	ON DOOR FR 23, STBD INBD SIDE	AL	T	F
MAIN DK VESTIBULE	JOINER DOOR FR 26 PORT, FWD	AL	T	F
MAIN DK MESS / RECREATION SPACE	JOINER DOOR FR 26, PORT AFT SIDE	AL	T	G
MAIN DK FAN ROOM	STEEL DOOR FR 21 11'-10" OFF C.L. PORT AFT SIDE	AL	T	F
MAIN DK VESTIBULE	STEEL DOOR FR 21 61" OFF C.L PORT AFT SIDE	AL	T	F
ENGINE ROOM	JOINER DOOR OUTBD	AL	T	F
MAIN DK VESTIBULE	JOINER DOOR INBD	AL	T	F
AUXILIARY MACHINERY SPACE No1	JOINER DOOR FR 21 FWD SIDE	AL	T	F
AUXILIARY MACHINERY SPACE No.2	JOINER DOOR BKHD 44 AFT SIDE	AL	T	F
ENCLOSED OPERATING STATION (E.O.S.)	ON DOOR AFT SIDE	AL	T	F
MAIN DK CBR LKR	STEEL DOOR AFT SIDE	AL	T	F
MAIN DK FOUL WEATHER GEAR LKR	INBD SIDE OF SPACE	AL	T	G
01 LVL CHIEF ENGINEER'S STATEROOM	JOINER DOOR 43" OFF C.L. FR 48 PORT AFT SIDE	AL	T	F
01 LVL SANITARY SPACE	JOINER DOOR FR 51, 30" OFF C.L. PORT, OUTBD	AL	T	F
01 LVL CAPTAINS STATEROOM	JOINER DOOR FR 48, 43" OFF C.L. STBD, AFT	AL	T	F
01 LVL SANITARY SPACE	JOINER DOOR FR 51 30" OFF C.L. STBD, OUTBD	AL	T	F

Table 16. Compartments Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
01 LVL PASSAGEWAY	STEEL DOOR P/S, FR 47 WEATHER SIDE	AL	T	F
01 LVL PASSAGEWAY	STEEL DOOR FR 33 ON C.L. WEATHER SIDE	AL	T	F
01 LVL LADDERWELL DOWN TO MAIN DK	JOINER DOOR 9" FWD FR 46 37" OFF C.L. PORT, FWD	AL	T	G
01 LVL PASSAGEWAY	JOINER DOOR 9" FWD C.L. FR 46, 37" OFF C.L. PORT AFT SIDE	AL	T	F
01 LVL FAN SPACE	JOINER DOOR 9" FWD FR 46 11-9 3/4" OFF C.L. PORT, FWD	AL	T	F
01 LVL LADDERWELL UP TO 02 LVL	JOINER DOOR 16" FWD FR 40 18" OFF C.L. PORT, INBD	AL	T	G
01 LVL PASSAGEWAY	JOINER DOOR 16" FWD FR 40 18" OFF C.L. PORT ,OUTBD	AL	T	F
01 LVL OFFICER'S STATEROOM No. 1	JOINER DOOR 2" AFT FR 42 18" OFF C.L. STBD, INBD	AL	T	F
01 LVL SANITARY SPACE	JOINER DOOR 13" AFT FR 44 7'-10 1/2" OFF C.L. STBD, INBD	AL	T	F
01 LVL OFFICER'S STATEROOM No. 2	JOINER DOOR 16" AFT FR 40 18" OFF C.L. PORT, INBD	AL	T	F
01 LVL SANITARY SPACE	JOINER DOOR 6" AFT FR 43 8'-10" OFF C.L. PORT, AFT	AL	T	F
01 LVL SANITARY SPACE	JOINER DOOR FR 34 18" OFF C.L. PORT, INBD	AL	T	F
01 LVL NCO'S STATEROOM	JOINER DOOR FR 34 18" OFF C.L. STBD, INBD	AL	T	F
02 LVL PILOT HOUSE	ALUM DOORS P/S FR 43 WEATHER SIDE	AL	T	F
01 LVL DECK LKR	LKR DOOR	AL	T	F
01 LVL VENT PLENUM	NEXT TO LOUVERED DOOR ON BHD. P/S (WEATHER SIDE)	AL	T	F
02 LVL STACK	STEEL DOORS P/S FR 33 WEATHER SIDE	AL	T	F
01 LVL EMER. GEN. ROOM	STEEL DOOR, WEATHER SIDE	AL	T	F

Table 17. Scuttles, Manholes, and Doors Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
TOWING GEAR LOCKER	HATCH COVER FR 8 39 ½" OFF C.L. PORT SIDE	AL	T	H
TOWING GEAR LOCKER	HATCH COVER FR 8 57" OFF C.L. STBD SIDE	AL	T	H
STEERING GEAR COMPARTMENT	HATCH COVER FR 1 15" OFF C.L. STBD SIDE	AL	T	H
AUX MCHRY SPACE No. 2	HATCH COVER FR 20 18" OF C.L. PORT SIDE	AL	T	H
BOW THRUSTER COMPARTMENT	HATCH COVER FR 55 32" OFF C.L. STBD SIDE	AL	T	H
AUX MCHRY SPACE No. 1	HATCH COVER 9" FWD FR 51 33" OFF C.L. PORT SIDE	AL	T	H
ENCLOSED OPERATION SPACE (E.O.S.)	HATCH COVER 9" FWD FR 41 6'-1" OFF C.L. PORT SIDE	AL	T	H
SWITCHBOARD ACCESS SPACE	OUTB/D SIDE OF DOOR	AL	T	F
SALT WATER BALLAST TANK No 1	MANHOLE COVER	BR	S	H
FUEL OIL DAY TANK PORT	MANHOLE COVER	AL	T	H
FUEL OIL DAY TANK STBD	MANHOLE COVER	AL	T	H
VOID PORT FR 28-36	MANHOLE COVER	AL	T	H
VOID STBD FR 28-36	MANHOLE COVER	AL	T	H
VOID FR 6-7	MANHOLE COVER	BR	S	
FUEL OIL TANK No. 4P	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 4S	MANHOLE COVER	AL	T	H
POTABLE WATER TANK PORT	MANHOLE COVER	AL	T	F
POTABLE WATER TANK STBD	MANHOLE COVER	AL	T	F
BOW THRUSTER VOID	ON BKHD NEAR M.H.	AL	T	F
FUEL OIL TANK No. 1P	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 1S	MANHOLE COVER	AL	T	H
SEWAGE HOLDING TANK	MANHOLE COVER	AL	T	H

Table 17. Scuttles, Manholes, and Doors Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
SEWAGE HOLDING TANK	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 1P	MANHOLE COVER	AL	T	H
VOID FR. 21-44	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 3C	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 3C	MANHOLE COVER	AL	T	H
SW BALLAST TANK No. 2 P	MANHOLE COVER	BR	S	H
SW BALLASTTANK No. 2 S	ON BKHD NEAR COVER	BR	S	H
CATHODIC PROTECTION TRANSDUCER	ON BKHD NEAR COVER	BR	S	H
SHAFT ALLEY PORT	TOP OF ACCESS COVER	BR	S	H
SHAFT ALLEY STBD	TOP OF ACCESS COVER	BR	S	H
FUEL OIL TANK No. 1S	MANHOLE COVER	AL	T	H
TRANSDUCER WELL	MANHOLE COVER	AL	T	H
VOID FR 21-44	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2C	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2P	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2S	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2P	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2S	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 2C	MANHOLE COVER	AL	T	H
OILY WASTE SUMP TANK	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 4P	MANHOLE COVER	AL	T	H
FUEL OIL TANK No. 4S	MANHOLE COVER	AL	T	H
POTABLE WATER TANK PORT	ON BKHD NEAR COVER	AL	T	H
POTABLE WATER TANK STBD	ON BKHD NEAR COVER	AL	T	H
S.W. BALLAST TANK No.2P	MANHOLE COVER FWD SIDE	AL	T	F

Table 17. Scuttles, Manholes, and Doors Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CHAIN LOCKERS & SUMP ACCESS	M.H. COVER INT OS.W. BALL. TK #1	BR	S	H
OILY WASTE TANK	MANHOLE COVER	AL	T	H
L.O. STORAGE TANK	MANHOLE COVER	AL	T	H
AFFF TANK	MANHOLE COVER	AL	T	H
VOID FR 40-44	MANHOLE COVER	AL	T	H
VOID FR 40-44	MANHOLE COVER	AL	T	H
VOID FR 40-44	MANHOLE COVER	AL	T	H
EDG FUEL OIL TANK	MANHOLE COVER	AL	T	H
MAIN DK LIFE JACKET LOCKER	ON BKHD ABV E M DOOR CENTRED 15" AFT OF FR 45	AL	T	G
TANK TOP SPARE PARTS STOREROOM	ON EM PANEL ABV EM DOOR FR 56 48" OFF C.L. PORT INBD	AL	T	G
TANK TOP MISC. STOREROOM	ON EM PANEL ABV EM DOOR FR 56 48" OFF C.L. STBD INBD	AL	T	F
TANK TOP WORKSHOP	ON EM DOOR FR FR 17 ½ 68" OFF C.L. STBD, INBD	AL	T	F
TANK TOP SPECIAL TOOLS LOCKER	ON EM DOOR FR FR39 STBD, OUTBD	AL	T	G
MAIN DK DRV PROVISIONS STORAGE	ON EM SLIDING DOOR FR 32	AL	T	F
SW BALLAST TANK No. 2S	MANHOLE COVER FWD SIDE	AL	T	F

**Table 18. Miscellaneous Label Plates**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
RADIO ROOM RESTRICTED AREA KEEP OUT AUTHORIZED PERSONNEL ONLY	RADIO ROOM DOOR OUTBD FACE	PH WH/RD		G SIZE 6" x 4"
DANGER HIGH INTENSITY NOISE HEARING PROTECTION REQUIRED	TO BE INSTALLED ON ACCESS TO SPACES TESTED TO BE ABOVE 78Db(A) NOISE LEVEL	AL	T	G (6X3)
RESTRICTED AREA KEEP OUT AUTHORIZED PERSONNEL ONLY	INBD SIDE OF PASSAGEWAY DOOR	AL	T	SIZE 6" x 3"
RESTRICTED AREA KEEP OUT AUTHORIZED PERSONNEL ONLY	IOUTBD SIDES OF PLT HSE DOORS	AL	T	SIZE 6" x 3"
CHAIN LOCKER (PORT)	MANHOLE COVER (P)	BR	S	H
CHAIN LOCKER(STBD)	MANHOLE COVER(S)	BR	S	H
01 LVL FAN ROOM	STEEL DOORWEATHER SIDE	AL	T	F
SURVIVAL SUITS (4) UNDER TABLE	GMDSS TABLE	PH WH/RD		F
AHEAD            ASTERN	STBD CONSOLE ENGINE CONTROLS	PH WH/BK		O
LOCK	PILOT HSE DOOR	PH WH/RD		J 2" x 1"
UNLOCK	PILOT HSE DOOR	PH WH/RD		J 2" x 1"
OPEN            CLOSE	PILOT HSE DOOR	PH WH/RD		Y1
OPEN            CLOSE	PILOT HSE DOOR	PH WH/RD		Y2
PULL TO CLOSE M.E. PORT AIR IN	FWD FACE OF STACK UNDER PULL	PH WH/RD		J
PULL TO CLOSE E.R. VENT AIR IN	FWD FACE OF STACK UNDER PULL	PH WH/RD		J
PULL TO CLOSE E.R. VENT AIR OUT	FWD FACE OF STACK UNDER PULL	PH WH/RD		J
PULL TO CLOSE M.E. STBD AIR IN	FWD FACE OF STACK UNDER PULL	PH WH/RD		J

Table 18. Miscellaneous Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
HATCH TO BE SECURED WHEN AT SEA	DECK HATCH COVER EXTERNAL FACE	PH WH/RD		G
HATCH TO BE SECURED WHEN AT SEA	DECK HATCH COVER EXTERNAL FACE	PH WH/RD		G
HATCH TO BE SECURED WHEN AT SEA	DECK HATCH COVER EXTERNAL FACE	PH WH/RD		G
HATCH TO BE SECURED WHEN AT SEA	DECK HATCH COVER EXTERNAL FACE	PH WH/RD		G
HATCH TO BE SECURED WHEN AT SEA	DECK HATCH COVER EXTERNAL FACE	PH WH/RD		G
WARNING DO NOT OPERATE CRANE WHEN HF WHIP ANTENNA ABOVE IS IN OPERATION	STACK	PH WH/RD		10" W x 5" H LETTERS 3/4" HIGH
WARNING MAN ALOFT PROCEDURE APPLIES. BEYOND THIS POINT	PILOT HSE BEHIND LADDER	PH WH/RD		9" W x 5" H LETTERS 3/4" HIGH
FRIDGE	REFRIGERATOR DOOR	PH WH/BK		2 1/2" W x 1 1/4" H
FREEZER	FREEZER DOOR	PH WH/BK		2 1/2" W x 1 1/4" H
WHISTLE PULL TO OPERATE	DK HEADLINING	PH WH/BK		J
BINOCULAR STOWAGE	STOWAGE POCKET	PH WH/BK		J
PULL TO CLOSE EMERG GEN AIR IN	EXTERNAL LONGTD BHD	PH WH/RD		J
PULL TO CLOSE EMERG GEN AIR OUT	EXTERNAL LONGTD BHD	PH WH/RD		J

Table 19. Pad Eyes Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 55.5 ON C.L. GIRDER AJD TO PAD	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 53 ON C.L. GIRDER AJD TO PAD	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 50 ON C.L. GIRDER AJD TO PAD	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 52, 66" OFF C.L. STBD, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 49, 66" OFF C.L. STBD, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 45, 6'-2" OFF C.L. STBD, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 42, 6'-2" OFF C.L. STBD, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 39, 6'-2" OFF C.L. STBD, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 41.5, 9'-10" OFF C.L. P/S, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 37.5, 9'-10" OFF C.L. P/S, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 37, 6'-6" OFF C.L. P/S, ON INSULATION ADJACENT TO PADEYE	AL	T	F



Table 19. Pad Eyes Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 37, ON C.L. GIRDER, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 34, ON C.L. GIRDER, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 30, ON C.L. GIRDER, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 26, ON C.L. GIRDER, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 34, 11'-0" OFF C.L. P/S, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 23, 11'-0" OFF C.L. P/S, ON INSULATION ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 29.5, 11'-0" OFF C.L. P/S, ON LONGTD ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 26.5, 11'-0" OFF C.L. P/S, ON LONGTD ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 23, 48" OFF C.L. P/S, ON LONGTD ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 19, 40.5" OFF C.L. PORT, ON LONGTD ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 21, 40.5" OFF C.L. PORT, ON BKHD 21 AFT SIDE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 17, 10'-1" OFF C.L. PORT, ON INSULATION, ADJACENT TO PADEYE	AL	T	F

Table 19. Pad Eyes Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 16, 10'-1" OFF C.L. PORT, ON INSULATION, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 19, 48" OFF C.L. STBD, ON INSULATION, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 17, 7'-5" OFF C.L. STBD, ON INSULATION, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 3000 LB TEST LOAD 6000 LB	MN DK UNDER SIDE, FR 15, 8'-6" OFF C.L. STBD, ON INSULATION, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 600 LB TEST LOAD 1200 LB	MN DK, UNDER SIDE, FR 14.5, 57-3/4" OFF C.L. STBD, ON INSULATION, ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 7000 LB TEST LOAD 14000 LB	MN DK UNDER SIDE, FR 14.5, 40 1/2" OFF C.L. STBD, ON LONGTD ADJACENT TO PADEYE	AL	T	F
WORKING LOAD 500 LB TEST LOAD 1000 LB	MN DK UNDER SIDE, FR 22, P/S ON OVHD INSULATION ADJACENT TO PADEYES NOTE: ENGINE CYLINDER REMOVAL PADEYES	AL	T	F
ID: LP 01 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, PORT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 02 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, PORT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 03 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, PORT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 04 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, STBD	PH WH/BK		K 2"W x 1 1/4" H

Table 19. Pad Eyes Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
ID: LP 05 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, STBD	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 06 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, PORT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 07 SWL: 4410 LBS DATE:	BHD, TOW GEAR LOCKER, FR 7, PORT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 08 SWL: 27562 LBS DATE:	TOW DK, FR 3 PORT, TEXAS CLEAT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 09 SWL: 27562 LBS DATE:	TOW DK, FR 3 STBD, TEXAS CLEAT	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 10 SWL: 27562 LBS DATE:	TOW DK, FR 11 PORT, H BOLLARD	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 11 SWL: 27562 LBS DATE:	TOW DK, FR 11 STBD, H BOLLARD	PH WH/BK		K 2"W x 1 1/4" H
ID: LP 12 SWL: 4410 LBS DATE:	UNDER 02 DK, FR 32 C.L., DK BEAM	PH WH/BK	K	2"W x 1 1/4" H
ID: LP 13 SWL: 4410 LBS DATE:	UNDER 02 DK, FR 32 STBD, DK BEAM	PH WH/BK	K	2"W x 1 1/4" H

**Table 20. Miscellaneous Stencilling Label Plates**

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON NAVIGABLE WATERS OF THE UNITED STATES OR THE WATERS OF THE CONTIGUOUS ZONE. IF SUCH DISCHARGE CAUSES A FILM OR SHEEN UPON OR DISCOLORATION OF THE SURFACE OF THE WATER OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE SUBJECT TO A PENALTY OF \$5000	ENGINE RM, FR 31 STBD, IN VICINITY OF OILY BILGE PUMP	A	T	5" x 8" & 3/16" LETTERS
	AMS 2, FR 14 PORT, ON BILGE & BALLAST PMP CONTROLLERS	A	T	5" x 8" & 3/16" LETTERS
PUMP HOLDING TANK CONTENTS OUT OF AUTHORIZED PUMP OUT STATIONS OR BEYOND RESTRICTED WATERS ONLY. CAUTION – DO NOT OPEN THE VALVE CONNECTING THE DISCHARGE PUMP TO THE OVERBOARD DISCHARGE IN RESTRICTED WATERS.	ENGINE RM, FR 44 PORT, PIPE NEAR VALVE SD-8. TIE WRAP	AL or BR	A	5" x 5" 3/16" HIGH LETTERS
BOW THRUSTER ENGINE CRANK CASE VENT	01 LVL, WEATHER, FR 54 PORT VENT TERM OR PIPE. TIE WRAP	AL	A	A
PUMP DRIVE ENGINE CRANK CASE VENT	01 LVL, WEATHER, FR 54 PORT VENT TERM OR PIPE. TIE WRAP OUTBD OF BOW THRUSTER ENGINE CRANK CASE VENT	AL	A	A
SSDG No.2 CRANK CASE VENT	TOP OF STACK, WEATHER, FR 29 PORT	AL	A	A
SSDG No.1 CRANK CASE VENT	TOP OF STACK, WEATHER, FR 29 STBD	AL	A	A
LUBO FILL CONN	01 LVL, WEATHER, FR 40 PORT, BHD NEAR CONN	AL	T	SIMILAR TO A
REFRIGERANT RELIEF VALVE DISCHARGE	MAIN DK, WEATHER, FR 21 STBD, PIPE, TIE WRAP	AL	A	A
OILY WASTE DISCH SHORE CONN	MAIN DK, WEATHER, FR 21 STBD, BHD NEAR CONN	AL	T	A

**Table 20. Miscellaneous Stencilling Label Plates (continued)**

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
POTABLE WTR FILL CONN	MAIN DK, WEATHER, FR 21 PORT, BHD NEAR CONN	AL	T	A
FUEL OIL FILL CONN	01 LVL, WEATHER, FR 33 PORT, BHD NEAR CONN	AL	T	A
FUEL OIL FILL CONN	01 LVL, WEATHER, FR 33 STBD, BHD NEAR CONN	AL	T	A
SEWAGE DISCH SHORE CONN	MAIN DK, WEATHER, FR 21 P/S, BHD NEAR CONN	AL	T	A
<p style="text-align: center;">NOTICE</p> <p>THIS VESSEL IS EQUIPPED WITH A SEWAGE TREATMENT SYSTEM. DO NOT INTRODUCE GREASE OR DISINFECTANTS SUCH AS PINE SOL INTO THE THE TOILETS OR OTHER DRAINS LEADING TO THE SEWAGE PLANT</p>	MAIN & 01 LVL SAN SPACES, BHD NEAR EACH TOILET	VINYL	STICK ON	VENDOR FURNISHED VINYL STICK-ON 6" x 2" WHITE LETTERING ON RED BACKGROUND
<p style="text-align: center;">WARNING</p> <p>GAS CANS SHOULD BE MOVED TO A SAFE LOCATION WHEN LIVE AMMUNITION IS FIRED FROM THE ADJACENT GUN MOUNT</p>	01 DK, WEATHER, FR 22 STBD, RAILING NEAR GUN MOUNT	AL	T	A WARNING RED LTRS FOLLOWING INSTRUCTIONS BLACK LTRS
SHAFT BRAKE OIL PRESS	ENG RM, FR 23 P/S, TOP OF CALIPER HOLDING PLT	PH	T	L
CONTROL AIR SYSTEM SUPPLY PRESSURE	ENG RM, PORT, OUTSIDE OF EOS LONG BHD, BELOW PRESS GAUGE	PH	T	J
FIRE STATION No.1	AMS #2, FR 18 STBD			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION

Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FIRE STATION No. 2	ENG RM, FR 32 P			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No. 3	AMS #1, FR 54 STBD			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No. 4	MAIN DK, WEATHER, FR 21 PORT			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No.5	CREWS MESS, FR 29 PORT, BHD			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No. 6	MAIN DK, PASSAGEWAY, FR 52 P, BHD			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No.7	01 LVL, WEATHER, FR 25 STBD, STACK			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION

STATION

**Table 20. Miscellaneous Stencilling Label Plates (continued)**

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
FIRE STATION No.8	01 LVL PASSAGEWAY, FR 47 STBD, BHD			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No.9	01 LVL, WEATHER, FR 54 STBD, D/HOUSE FRONT			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No. 10	02 LVL, WEATHER, FR 37 PORT, PILOT HSE AFT FACE			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
FIRE STATION No. 11	02 LVL, WEATHER, FR 50 STBD, PILOT HSE SIDE (STBD)			STENCIL 2" HIGH RED LETTERS ON BHD NEAR FIRE STATION
U.S. ARMY LT 8 - -	ALL FIRE AXES	VINYL	STICK ON	(USE APPRO- PRIATE HULL No.) VINYL STICK- ON WITH 1/2" HIGH BLACK LETTERS.

**Table 20. Miscellaneous Stencilling Label Plates (continued)**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
FIRE AXE	BHD NEAR EACH FIRE AXE LOCATION			VINYL STICK-ON WITH 1" HIGH RED LETTERS
U.S. ARMY LT 8 - -	(MARK APPROPRIATE HULL No.) STENCIL 1 1/2" HIGH LETTERS IN BLACK COLOR ON ALL FIRE HOSES			
U.S. ARMY LT 8 - -	(MARK APPROPRIATE HULL No.) STENCIL 1 1/2" HIGH LETTERS IN BLACK COLOR ON ALL LIFE PRESERVERS, RING LIFEBOUY, SURVIVAL SUITS			
PORT FEXT – 1 ENG RM FR21 STBD	ENG RM, FR 21 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 2 ENG RM FR26 STBD	ENG RM, FR 26 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 3 ENG RM FR 36 PORT	ENG RM, FR 36 PORT, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 4 ENG RM FR36 STBD	ENG RM, FR 36 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT-5 ENG RM FR 38 STBD	ENG RM, FR 38 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS



Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PORT FEXT – 6 ENG RM FR 44 STBD	ENG RM, FR 44 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 7 ENG RM ACCESS FR 22 STBD	MAIN DK, ENG RM ACCESS, FR 22 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 8 GALLEY FR 32 STBD	MAIN DK, GALLEY, FR 32 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 9MN DK PASS FR 43 PORT	MAIN DK, PASS, FR 43 PORT, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 10 BOSN ST FR61 PORT	MAIN DK, BOSN STORE, FR 61 PORT, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 11 EMER GEN RM FR 30 STBD	01 LVL, EMERG GEN RM, FR 30 STBD, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS
PORT FEXT – 12 01 LVL PASS FR 45 PORT	01 LVL, PASS, FR 45 PORT, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2" HIGH WHITE LETTERS

Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PORT FEXT – 14 RADIO RM FR 42 STBD	RADIO ROOM, FR 42 PORT, FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON WITH 1/2” HIGH WHITE LETTERS
PORT FEXT – 1	ENG RM, FR 21 STBD BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 2	ENG RM, FR 26 STBD BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FEXT- 3	ENG RM, FR 36 PORT BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FXT – 4	ENG RM, FR 36 STBD BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 5	ENG RM, FR 38 STBD BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 6	ENG RM, FR 44 STBD BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 7	MAIN DK, ENG RM ACCESS, FR 22 STBD, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINYL STICK-ON W 1” HIGH RED LETTERS

Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PORT FEXT – 8	MAIN DK, GALLEY, FR 32 STBD, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 9	MAIN DK, PASS, FR 43 PORT, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 10	BOSN STORE, FR 61 PORT, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 11	EMER GEN RM, FR 30 STBD, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 12	01 LVL PASS, FR 45 PORT, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
PORT FEXT – 14	RADIO RM, BHD NEAR FIRE EXTINGUISHER	VINYL	STICK ON	VINLY STICK-ON W 1” HIGH RED LETTERS
U.S.ARMY LT 8 -- CAPACITY 25 PERSONS	LIFERAFT. STENCIL 1 1/2” HIGH LETTERS IN CONTRASTING COLOR TO THE BACKGROUND (MARK APPROPRIATE HULL No.)			STENCIL
LIFERAFT No.1 25 PERSONS CAPACITY	02 LVL, WEATHER, FR 33 STBD, ON FWD BHD OF THE STACK. STENCIL 1 1/2” HIGH LETTERS IN BLACK COLOR ON FWD BHD OF THE STACK ADJACENT TO THE LIFERAFT			STENCIL

**Table 20. Miscellaneous Stencilling Label Plates (continued)**

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
LIFERAFT No.2 25 PERSONS CAPACITY	02 LVL, WEATHER, FR 33 PORT, ON FWD BHD OF THE STACK. STENCIL 1 1/2" HIGH LETTERS IN BLACK COLOR ON FWD BHD OF THE STACK ADJACENT TO THE LIFERAFT			STENCIL
PORTABLE EMERGENCY LIFEBOAT RADIO INSIDE STACK	02 LVL, WEATHER, FR 33 PORT, ON FWD BHD OF THE STACK ABOVE THE DOOR.			STENCIL 1 1/2" HIGH LETTERS IN RED COLOR
EMERGENCY LIFEBOAT RADIO	02 LVL, STACK, FR 32 PORT, ON BHD ABOVE THE PORTABLE RADIO			STENCIL 1 1/2" HIGH LETTERS IN RED COLOR
REMOVE PIN TO UNLOCK HANDWHEEL	AMS #2, FR 20 STBD, UNDERSIDE OF THE AMS #2 HATCH			STENCIL 1" HIGH LETTERS IN RED COLOR
DOOR SHALL BE KEPT SHUT AT ALL TIMES WHILE TOWING	MAIN DK, WEATHER, FR 21 PORT ON THE FAN RM DOOR (AFT SIDE)			STENCIL 1 1/2" HIGH LETTERS IN RED COLOR
STBD MAIN ENGINE COMB AIR INTAKE PLENUM	01 LVL, VENT PLENUM, FR 26 STBD, INBD SIDE OF INTAKE PLENUM			STENCIL 1" HIGH LETTERS IN BLACK COLOR
PORT MAIN ENGINE COMB AIR INTAKE PLENUM	01 LVL, VENT PLENUM, FR 26 PORT, INBD SIDE OF INTAKE PLENUM			STENCIL 1" HIGH LETTERS IN BLACK COLOR
DIESEL STARTING AIR RCVR No. 1	AMS #1, FR 53 PORT, ON THE RCVR			STENCIL 1" HIGH LETTERS IN BLACK COLOR

Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
DIESEL STARTING AIR RCVR No. 2	AMS #1, FR 51 PORT, ON THE RCVR			STENCIL 1" HIGH LETTERS IN BLACK COLOR
SHIPS SERVICE AIR RCVR	AMS #1, FR 49 PORT, ON THE RCVR			STENCIL 1" HIGH LETTERS IN BLACK COLOR
DANGER HIGH VOLTAGE	POWER PANELS, DIST. PANELS LOAD CENTERS POWER SUPPLY LIGHTING PANELS	VINYL	STICK ON	USE EXIST'G STICK- ONS IN WARE- HOUSE STOCK
SHAFT VOID PT VENT	MAIN DK, WEATHER, FR 19 PORT, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
SHAFT VOID STBD VENT	MAIN DK, WEATHER, FR 19 STBD, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NAT VENT TOWING GEAR LOCKER	MAIN DK, WEATHER, FR 7 P/S, VENT TRUNK			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NAT VENT STEERING GEAR COMPMT	MAIN DK, WEATHER, FR 0 P/S, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NATURAL EXH CLOTHES DRYER	01 DK, WEATHER, FR 55 PORT, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR

Table 20. Miscellaneous Stencilling Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
NAT VENT LAUNDRY SPACE	01 DK, WEATHER, FR 56 PORT, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NAT VENT BOW THRUSTER SPACE	01 DK, WEATHER, FR 57 PORT, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NAT VENT BOW THRUSTER SPACE	01 DK, WEATHER, FR 55 STBD, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
AIR EXH SERVICE SYS	01 DK, WEATHER, FR 62 PORT, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
NAT EXH BOSUNS STORE	01 DK, WEATHER, FR 62 STBD, VENT PIPE			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
AIR INTAKE SUPPLY FAN	01 DK, WEATHER, FR 58 STBD, VENT TRUNK			STENCIL 3/4" HIGH LETTERS IN RED COLOUR
LIFE PRESERVER	PILOT HSE, FR 44 P/S, LIFE PRESERVER STOWAGE BIN			STENCIL 1/2" HIGH LETTERS IN RED COLOUR
PAINT LOCKER	02, WEATHER, FR 32 CL, LOCKER LID			STENCIL 3/4" HIGH LETTERS IN BLACK

**Table 21. Electrical Label Plates**

<b>(1) INSCRIPTION</b>	<b>(2) SECURE TO</b>	<b>(3) MATL (table 23)</b>	<b>(4) ATT (table 24)</b>	<b>(5) TYPE (table 25)</b>
LS-519A/SIC INTERCOM	ENCLOSURE COVER, MAST, FR 45 STBD	AL	T	F
LS-519A/SIC INTERCOM	ENCLOSURE COVER, 01 LVL, WEATHER, FR 54 STBD	AL	T	F
LS-519A/SIC INTERCOM	ENCLOSURE COVER, 01 LVL, FR 21	AL	T	F
01 LVL DIST . PNL No.2 LC-IP-DP2	ENCLOSURE COVER, 01 PASS, FR 46.5 STBD	PH BK/WH	T	J
LIGHTING DISTRIBUTION MN DK DIST. PNL N0.3 LC-1P-DP3	ENCLOSURE COVER, MN DK PASS, FR 44 STBD	PH BK/WH	T	K
VENTILATION MN DK PWR PNL No. 3 2S-4P-PP3	ENCLOSURE COVER, MESS, FR 40 STBD	PH BK/WH	T	K
ENG RM EMER DIST PANEL No.1 ELC-1EP-EDP1	ENCLOSURE COVER, ENG RM, FR 38 STBD	AL	T	K
ENG RM LOAD CENTER DISTRIBUTION PNL 1S-1P-E(2)	ENCLOSURE COVER, ENG RM, FR 38 C.L.	AL	T	K
ENG RM DIST PNL No.4 LC-1P-DP4	ENCLOSURE COVER, ENG RM, FR 39 PORT	AL	T	J
ENGINE ROOM POWER PANEL #1 1S-4P-PP1	ENCLOSURE COVER, ENG RM, FR 38 STBD	AL	T	K
AUX MACH SPACE #1 POWER PANEL #4 1S-4P-PP4	ENCLOSURE COVER, AMS 1, FR 54 PORT	AL	T	K
AUX MACH SPACE #2 POWER PANEL #5 2S-4P-PP5	ENCLOSURE COVER, AMS 2, FR 20 PORT	AL	T	K
GALLEY 460V PWR PNL #2 2S-4P-PP2	ENCLOSURE COVER, GALLEY, FR 40 STBD	AL	T	K
EMERG. LOAD CTR DISTRIBUTION PANEL EDP-1EP-D(2)	PANEL, 01 DK, GEN RM, FR 30 STBD	AL	T	K
01,02 & MN DK EMER. LT PNL #1 ELC-1EL-EL1	PANEL, MESS, FR 27 PORT	AL	T	K
PILOT HOUSE EMER DIST PNL ELC-1EP-PEDP	PANEL, 01 LVL PASS, FR 40 PORT	AL	T	K

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
EXTERIOR EMER, LIGHTING PANEL #2 ELC-1EL-EL2	PANEL, 01 LVL CL PASSAGE, FR 37 STBD	PH BK/WH	T	K
RADIO ROOM ELEX DIST. PANEL ELC-1EP-EXDP	PANEL, 01 LVL, MEDICAL LOCKER, FR 40 PORT	AL	T	K
GALLEY EQUIPMENT 220/110V DISTRIBUTION PANEL 1S-2P/1P-H (2)	PANEL, GALLEY, FR 32 STBD	PH BK/WH	T	M
GALLEY 120V DIST PANEL #1 LC-1P-DP1	PANEL, GALLEY, FR 32 STBD	AL	T	K
01 & 02 LEVE REHTR FUSE BOX#1 DP3-1P-H-FB1	PANEL, 01 LVL PASS, FR 48 PORT	AL	T	K
01 & 02 LVL CONV. HTR FUSE BOX#2 DP2-1P-J-FB2	PANEL, 01 LVL PASS, FR 48 PORT	AL	T	K
MN DK CONV. HTR & REHTR FUSE BOX#3 DP3-1P-G-FB3	PANEL, MN DK PASS, FR 45 STBD	AL	T	K
BATTERY CHARGER SSDG #1 EDP1-1EP-L(1)	UNIT, ENG RM, FR 36 STBD	PH BK/WH		K
BATTERY CHARGER MACHINERY D.C. CONTROL EDP1-1EP-M(I)	UNIT, ENG RM, FR 36 STBD	PH BK/WH		K
MACHINERY D.C. CONTROL DISTRIBUTION PNL EDP1-1EP-M	UNIT, ENG RM, FR 38 C.L.	AL	T	K
BATTERY CHARGER EMER. DIESEL GEN ELC-1EP-B	UNIT, EMER GEN RM, FR 32 STBD	AL	T	K
EMER DIESEL GENERATOR STARTING BATTERY SW ELC-24EP-B	UNIT, EMER GEN RM, FR 33 STBD	AL	T	K
BATTERY CHARGER GENERAL ALARM ELC-1EP-A	UNIT, PILOT HSE, FR 40 C.L.	AL	T	K
GENERAL ALARM BELL C-G6-2	BHD, BOW THRUSTER	AL	T	J RED LETTER- ING



Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GENERAL ALARM BELL C-G6-3	BHD, AMS 1	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G7-1	BHD, E.O.S.	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G7-2	BHD, ENG RM	AL	T	J RED LETTER- ING
GENERAL ALARM ROTARY BEACON EDP1-1EL-A(1)	BHD, ENG RM	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G7-3	BHD, AMS 2	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G7-4	BHD, TOW GR LKR	AL	T	J RED LETTER- ING
GENERAL ALARM ROTARY BEACON EDP1-1EL-C(1)	BHD, AMS 1	AL	T	K RED LETTER- ING
GENERAL ALARM ROTARY BEACON EDP1-1EL-D(1)	BHD, AMS 2	AL	T	K RED LETTER- ING
GENERAL ALARM BELL C-G5-5	BHD, BOATSWAIN STORES	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G5-4	BHD, MN DK PASS	AL	T	J RED LETTER- ING

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GENERAL ALARM BELL C-G5-3	BHD, MESS	AL	T	J RED LETTER- ING
GENERAL ALARM BELL C-G4	BHD, 01 DK PASS	AL	T	J RED LETTER- ING
CONTACT MAKER GENERAL ALARM SYS C-1A	BHD, 01 DK PASS	AL	T	K RED LETTER- ING
GENERAL ALARM SYS DISTRIBUTION PANEL C-G8	BHD, 01 DK PASS	AL	T	K RED LETTER- ING
GENERAL ALARM BELL C-G2	SIDE PANELLING, PLTHS FR 47 PORT	PH RD/WH		K 3" W x 1" H
CONTACT MAKER GENERAL ALARM SYS C-G1	SIDE PANELLING, PLTHS FR 47 PORT	PH RD/WH		K 3" W x 1" H
HVAC SYS EMER STOP AMS 2 SPLY FAN 1-22-2 PP3-1K-C	FOUNDATION, MN DK PASS, FR 23 STBD	AL	T	K
HVAC SYS EMER STOP ENG RM EXH FAN 02-27-2 ENG RM SPLY FAN 01-27-2 2S-4P-D&E	FOUNDATION, MN DK PASS, FR 23 STBD	AL	T	M
HVAC SYS EMER STOP ENG RM EXH FAN 02-27-1 ENG RM SPLY FAN 01-27-1 1S-1K-F(2)	FOUNDATION, MN DK PASS, FR 23 STBD	AL	T	K
HVAC SYS EMERG STOP AMS 1 SPLY FAN 01-45-2 PP4-1K-G(1)	FOUNDATION, MN DK PASS, FR 23 S	AL	T	K
HVAC SYSTEM EMER STOP GALLEY SUPPLY FAN 1-22-4 CREW MESS FAN COIL 1-25-2 PP3-1K-H(1) PP2-1K-B(1)	BHD, MESS, FR 39 STBD	AL	T	N
HVAC SYS EMER STOP 01 -02 DECK R01-32-2 PP3-1K-J(1)	BHD, PILOT HSE. FR 46 PORT	PH BK/WH		K 3" W x 1 1/4" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
HVAC SYS EMER STOP SAN SPACE EXH FAN 01-44-2 PP3-1K-N(1)	BHD, PILOT HSE, FR 46 PORT	PH BK/WH		K 3" W x 1 1/4" H
HVAC SYSTEM DISCONNECT SW FOR EXH FAN E02-27-2 2S-1K-E	BHD, 02 STACK, FR 31 PORT	AL	T	M
HVAC SYSTEM DISCONNECT SW FOR EXH FAN E02-27-1 1S-1K-C	BHD, 02 STACK, FR 31 STBD	AL	T	M
HVAC SYSTEM DISCONNECT SW FOR ENG RM SPLY S01-27-2 2S-1K-D(3)	BHD, 01 STACK, FR 27 PORT	AL	T	M
HVAC SYSTEM DISCONNECT SW FOR ENG RM SPLY S01-27-1 1S-1K-F(3)	BHD, 01 STACK, FR 27 STBD	AL	T	M
HVAC SYSTEM DISCONNECT SW FOR SUPPLY FAN 01-44-2 PP4-1K-G(2)	BHD, 01 FAN SPACE, FR 43 PORT	AL	T	M
HVAC SYS EMER STOP BOSUN STORES/PAINT LKR EXH FAN E1-62-2PP3-1K-G(1)	BHD, MN DK PASS, FR 53 STBD	AL	T	M
EMER STOP FOR F.O. XFR PUMP No.2 PP1-1K-L(1)	BHD, MN DK PASS, FR 24 STBD	AL	T	K
EMER STOP FOR F.O. XFR PUMP No.1 EDP-1EK-E(1)	BHD, MN DK PASS, FR 24 STBD	AL	T	K
STEERING SYSTEM AUTO PILOT FEEDBACK UNIT (PORT) C-LCS13	UNIT, STRNG GR ROOM, FR 0 PORT	AL WH/BK	T	K
STEERING SYSTEM AUTO PILOT FEEDBACK UNIT (STBD) C-LCS14	UNIT, STRNG GR ROOM, FR 0 STBD	AL WH/BK	T	K
STEERING SYSTEM RUDDER FEEDBACK UNIT (PORT) C-LCS15	UNIT, STRNG GR ROOM, FR 0 PORT	AL WH/BK	T	K
STEERING SYSTEM RUDDER FEEDBACK UNIT (STBD) C-LCS11	UNIT, STRNG GR ROOM, FR 0 STBD	AL WH/BK	T	K
STEERING SYSTEM PORT STARTER PANEL EDP-4EP-F(1)	UNIT, AMS 2, FR 20 STBD	AL	T	K

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
STEERING SYSTEM STBD STARTER PANEL 1S-4P-B(1)	UNIT, AMS 2, FR 20 STBD	AL	T	K
1. PLTHS TOP 2. PILOTHOUSE 3. PORT BRDG WING 4. STBD BRDG WING 5. FWD O2 DK BRIDGE 6. D.C. CENTER 7. FOREDECK 8. CH ENG S.R. 9. CAPTAIN'S S.R. 10. OFFICER S.R. 1 11. OFFICER S.R. 2 12. EMER GEN ROOM 13. AFT CONTROL & GUNNER 14. D.C. LOCKER 15. CREW MESS 16. GALLEY 17. FANTAIL 18. BOW THRUSTER 19. E.O.S. 20. EMER STRNG GR	UNIT, ALL LOCATIONS (SOUND POWERED TELEPHONE SYSTEM)	PH WH/BK	T	
1. PILOT HOUSE 2. RADIO ROOM	UNIT, PLTHS & RADIO RM (SOUND POWERED TELEPHONE SYSTEM)	PH WH/BK	T	
HVAC SYSTEM CONTROLLER FOR RHTR 1-25-2 PP3-4P-B(1)	UNIT, MN DK FAN RM, FR 23 PORT	AL	T	M
HVAC SYSTEM CONTROLLER FOR PRHTR 1-23-2 PP2-4P-A(1)	UNIT, MN DK FAN RM, FR 24 PORT	AL	T	M
HVAC SYSTEM CONTROLLER FOR PRHTR 1-23-4 PP3-4P-A(1)	UNIT, MN DK FAN RM, FR 25 PORT	AL	T	M
HVAC SYSTEM CONTROLLER FOR PRE/RHTR 1-57-1 PP3-4P-D(1)	UNIT, BOSN'S STORE, FR 54 STBD	AL	T	M
HVAC SYSTEM CONTROLLER FOR RHTR 01-32-2 PP3-4P-F(1)	UNIT, 01 DK FAN ROOM, FR 33 PORT	AL	T	M
HVAC SYSTEM CONTROLLER FOR PRHTR 01-31-2 PP3-4P-E(1)	UNIT, 01 DK FAN ROOM, FR 33 PORT	AL	T	M
ARMS CONTROL RM WTR LVL	UNIT, ALARM SWBD, PLTHS, FR 48 PORT	AL	T	L

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
ARMS CONTROL RM H1 TEMP	UNIT, ALARM SWBD, PLTHS, FR 48 PORT	AL	T	L
RADIO ROOM DOOR OPEN	UNIT, ALARM SWBD, PLTHS, FR 48 PORT	AL	T	L
FAN ROOM DOOR OPEN	UNIT, ALARM SWBD, PLTHS, FR 48 PORT	AL	T	L
ALARM SWBD EL1-1EL-K	UNIT, ALARM SWBD, PLTHS, FR 48 PORT	AL	T	J
FIRE & SMK DET SYS ALARM BELL C-SM30	SIDE PANELLING, PLTHS, FR 47 PORT	AL	T	K
FIRE & SMK DET. SYS. REMOTE INDICATOR PNL C-SM29	SIDE PANELLING, PLTHS, FR 48 PORT			K
NAVIGATION SYSTEM BLINKER LIGHT KEY NLP-1EL-E	SIDE PANELLING, PLTHS, FR 48 PORT	AL	T	K
DOOR ALARM CUT-OFF SW C-DL-2	BHD, RADIO RM, FR 41 PORT	AL	T	J
SHIP'S STORE REFER SYS FRZR DEFROST HTR CONTACTOR PP5-4P-J(4)	UNIT, GALLEY, FR 26 STBD	AL	T	K
SHIP'S STORE REFER SYS FRZR DEFROST TIMER DP4-1P-S(7)	BHD, GALLEY, FR 26 STBD	AL	T	K
SHIP'S STORE REFER SYS DISCONNECT SW FOR FRZR DEFROST TIMER DP4-1P-S(6)	BHD, GALLEY, FR 26 STBD	AL	T	M
SHIP'S STORE REFER SYS DISCONNECT SW FOR FRZR DEFROST HTR CONTACTOR PP5-4P-J(3)	BHD, GALLEY, FR 26 STBD	AL	T	M
SHIP'S STORE REFER SYS DISCONNECT SW FOR CHILL ROOM COOLER UNIT DP4-1P-S(14)	BHD, GALLEY, FR 26 STBD	AL	T	M
WHEN ALARM SOUNDS PERSONNEL ARE TRAPPED IN REFER STORES	BHD NEAR BUZZER ALARM, GALLEY, FR 26 STBD	AL	T	1/2" HIGH RED LETTERING ON A 5"W x 3" H PLATE

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GARBAGE DISPOSAL SW 1S-2P/1P-B	BHD, GALLEY, FR 36 STBD	AL	T	J
#1 STEAM TABLE HTR SW. DP1-1P-F(2)	STEAM TABLE, GALLEY, FR 36 STBD	AL	T	J
#2 STEAM TABLE HTR SW DP1-1P-F(3)	STEAM TABLE, GALLEY, FR 34 STBD	AL	T	J
HEATER RESET BEHIND PANEL	STEAM TABLE, GALLEY FR 36 STBD	AL	T	J
HEATER RESET BEHIND PANEL	STEAM TABLE, GALLEY FR 34 STBD	AL	T	J
FREEZER ALARM	UNIT, REFER STORES, STBD	AL	T	L
SHORE PWR RCPTSP-4P-2S	BHD, FANTAIL WEATHER, FR 21 PORT	AL	T	1" TALL RED LETTERS
CONTROLLER FOR MSD PP4-4P-C(1)	UNIT, AMS 1, FR 46 PORT	AL	T	J
ENGINE ORDER TELEGRAPH SYS CONSTANT RINGING BELL K-PA8	BHD, E.O.S. FR 39 PORT	AL	T	K
ENGINE ORDER TELEGRAPH SYS WRONG DIRECTION BELL/LT PNLK-PC3	BHD, E.O.S. FR 39 STBD	AL	T	K
ENG ORDER TELEGRAPH SYS UNINTERRUPTABLE POWER SPLYK-PA9	UNIT, E.O.S. UNDER CONSOLE, FR 38 STBD	AL	T	K
ENG ORDER TELEGRAPH SYS LOGIC PANEL K-PC2	UNIT, E.O.S. UNDER CONSOLE, FR 38 PORT	AL	T	K
RMT PRPLN IND SYS JUNCTION BOX EDPI-1EP-J	UNIT, ENG RM PCL TOOLS LOCKER, FR 38 C.L.	AL	T	K
MACHINERY MONITORING SYS CPU MULTI-REMOTE EDPI-24EP-M(7)	UNIT, ENG RM, FR 38 C.L.	AL	T	K
MACHINERY MONITORING SYS PORT MULTI ANALOG REMOTE K-SGX01	UNIT, ENG RM, FR 23 C.L.	AL	T	K

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
MACHINERY MONITORING SYS STBD MULTI ANALOG REMOTE K-SGX02	UNIT, ENG RM, FR 23 C.L.	A	T	K
# 1 A/C CONDENSING UNIT DISCONNECT SW DP4-1P-R(3)	FDN, AMS 2, FR 16 STBD	A	T	K
# 2 A/C CONDENSING UNIT DISCONNECT SW DP4-1P-R(4)	FDN, AMS 2, FR 16 STBD	A	T	K
# 1 REFER CONDENSING UNIT DISCONNECT SW DP4-1P-S(2)	FDN, AMS 2, FR 16 PORT	A	T	K
# 2 REFER CONDENSING UNIT DISCONNECT SW DP4-1P-S(4)	FDN, AMS 2, FR 16 PORT	A	T	K
HVAC SYSTEM CONTROLLER FOR EXHST FAN EO2-16-1 DP4-1P-P	UNIT, AMS 2, FR 17 STBD	A	T	M
FREEZE BOX FAN COIL DP4-1P-S(4)	UNIT, REFER STORES, FR 23 PORT	A	T	J
CHILL BOX FAN COIL DP4-1P-S(5)	UNIT, REFER STORES, FR 23 PORT	A	T	J
DEFROST TERMINATION AND FAN DELAY THERMOSTAT	FAN COIL CONTROL BOX, FREEZE BOX	A	T	K
DEFROST TERMINATION AND FAN DELAY THERMOSTAT	FAN COIL CONTROL BOX, CHILL BOX	A	T	K
STEERING CONTROL ALARM PANEL	CONSOLE, E.O.S. CONSOLE, FR 39 PORT	PH	T	J
DOPPLER SPEED LOG SAL R1 REMOTE DISPLAY	CONSOLE, PLTHS, FR 51 PORT	PH	T	J
COMMAND TRANSFER	EACH CONSOLE (E.O.S., PLTHS, 01 WEATHER, 02 WEATHER)	PH	T	3" x 1"
CONTROL AIR PRESSURE	EACH CONSOLE (E.O.S., PLTHS, 01 WEATHER, 02 WEATHER)	PH	T	3" x 1"
PORT MAIN ENGINE THROTTLE CLUTCH	EACH CONSOLE (E.O.S., PLTHS, 01 WEATHER, 02 WEATHER)	PH	T	3" x 1"
STBD MAIN ENGINE THROTTLE CLUTCH	EACH CONSOLE (E.O.S., PLTHS, 01 WEATHER, 02 WEATHER)	PH	T	3" x 1"

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
BOW THRUSTER THROTTLE/CLUTCH	CONSOLE, PLTHS, FR 45 PORT	PH	T	J
ON                      OFF	UNIT, RADIO ROOM, FR 42 PORT RADIO ROOM DOOR ALARM SWITCH	AL	T	
DESK ILLUMINATION ELC-24EP-1	LIGHT OVER DESK, RADIO RM, FR 40 STBD	PH WH/RD		1" x 3/4"
WHITE ON	BHD ABOVE LIGHT SWITCH, RADIO RM, FR 40 PORT	PH WH/BK		1" x 3/4"
WHITE OFF	BHD ABOVE LIGHT SWITCH, RADIO RM, FR 40 PORT	PH WH/BK		1" x 3/4"
DOOR ALARM S/W C-DL2	CONSOLE PANEL, PLTHS DK, FR 51 PORT	PH WH/RD		1" x 3/4"
STEERING SYSTEM STA, XFR CONTROL BOX	UNIT, PLTHS DK, UNDER CONSOLE	AL	T	J
PORT SEARCH LIGHT POWER SUPPLY EDP-1EL-B	UNIT, 01 DK, FWD FAN RM, FR 44 PORT	AL	T	K
STBD SEARCH LIGHT POWER SUPPLY EDP-1EL-H	UNIT, 01 DK, FWD FAN RM, FR 44 PORT	AL	T	K
GENERAL ALARM	STARBD BHD UNDER LT, RADIO RM FR 41-43 STBD	PH WH/RD		2" W x 1" H
FIRE ALARM	STARBD BHD UNDER LT, RADIO RM FR 41-43 STBD	PH WH/RD		2" W x 1" H
E.D.G. STARTING BATTERY BANK #1	BATTERY BOX, EMER GEN ROOM, FR 32 STBD	AL	T	J
E.D.G. STARTING BATTERY BANK #2	BATTERY BOX, EMER GEN ROOM, FR 32 STBD	AL	T	J
FUEL OIL DAY TANKS (P&S) HIGH LEVEL ALARM	MACH D.C. CONTROL POWER PANEL, ENGINE RM, FR 38 C.L.	PH WH/RD		P 2 1/8" x 1 1/2"
RACOR FILTER EDP1-1EP-R 15AT	FILTER ENCLOSURE, ENGINE RM, FR 26 STBD	PH WH/BK		H
EMER. XFMR BANK 440/120V 3PH 10KVA EDP-4EP-D(1)	XFMR, EMER GEN ROOM, FR 31	AL	T	K



Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
LS-519A/SIC INTERCOM SYS JUNCTION BOX CB-21MC2	OVHD CEILING GRID, N.C.O.'S STATE ROOM, FR 36 STBD	AL	T	K
LS-519A/SIC INTERCOM SYS JUNCTION BOX CB-21MC3	CEILING GRID, CREWS SR#4, FR 43 STBD	AL	T	K
SND PWR TELE SYS CALL BELL TERM BOX C-JV-B	BOX, D.C. LKR, FR 51 PORT	AL	T	K
SND PWR TELE SYS TERM BOX C-JV-L	BOX, D.C. LKR, FR 51 PORT	AL	T	K
440/220-110V 25 KVA XFMR 1PH	BHD, CREW'S MESS, FR 40 PORT	AL	T	J
POTABLE WATER HEATER #1	UNIT, AMS 1, FR 46 PORT	AL	T	J
POTABLE WATER HEATER #2	UNIT, AMS 1, FR 46 PORT	AL	T	J
BOW THRUSTER BRAKE PANEL	UNIT, AMS 1, FR 53 PORT	AL	T	J
FIRE & SMK DETECTION SYSTEM PANEL EDP1-1EP-H	UNIT, E.O.S., FR 42 PORT	AL	T	K
MASTER TANK LEVEL INDICATOR PANEL 11 CHANNEL EDP1-1EP-F	UNIT, E.O.S., FR 44 PORT	AL	T	M
MASTER TANK LEVEL INDICATOR PANEL 7 CHANNEL EDP1-1EP-F	UNIT, E.O.S., FR 39 PORT	AL	T	M
SSDG#1 STARTING BATTERY BANK	BATTERY BOX, ENG RM, FR 36 STBD	AL	T	J
MACHINERY D.C. CONTROL BATTERY BANK	BATTERY BOX, ENG RM, FR 36 STBD	AL	T	J
CYLINDER TEMPERATURE	UNIT, ENG RM, FR 38 P/S	AL	T	J
M.E. #1 ALARM	UNIT BASE, ENG RM, FR 37 STBD	AL	T	L
M.E. #2 ALARM	UNIT BASE, ENG RM, FR 37 PORT	AL	T	L
CENTRAL HYDRAULIC SYS PUMP #12S-4P-H(3)	PUMP MOTOR, ENG RM, FR 32 PORT	AL	T	K
CENTRAL HYDRAULIC SYS PUMP #22S-4P-H(2)	PUMP MOTOR, ENG RM, FR 32 PORT	AL	T	K

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
XFMR BANK 440/120V 3PH 25KVA 1S-4P-E(1)	UNIT, ENG RM, FR 30 PORT	AL	T	K
#1 SHAFT BRAKE PANEL	UNIT, ENG RM, FR 24 STBD	AL	T	K
#2 SHAFT BRAKE PANEL	UNIT, ENG RM, FR 24 PORT	AL	T	K
REDUCTION GEAR #1 FRESH WTR CLNG PMP PP1-4P-C(2)	UNIT, ENG RM, FR 26 STBD	AL	T	K
REDUCTION GEAR #2 FRESH WTR CLING PMP PP1-4P-D(2)	UNIT, ENG RM, FR 26 STBD	AL	T	K
SHORE POWER TERM BOX SP-4P-2S	UNIT, ENG RM, FR 21 PORT	AL	T	K
SHIP'S STORES REFR CONDENSING UNIT #1 PP5-4P-J(1)	UNIT, AMS 2, FR 16 PORT	AL	T	K
SHIP'S STORES REFR CONDENSING UNIT #2 PP5-4P-K(1)	UNIT, AMS 2, FR 16 PORT	AL	T	K
A/C REFRIGERATION CONDENSING UNIT #1 PP5-4P-G(1)	UNIT, AMS 2, FR 16 STBD	AL	T	K
A/C REFRIGERATION CONDENSING UNIT #2 PP5-4P-H(1)	UNIT, AMS 2, FR 16 STBD	AL	T	K
POTABLE WATER PUMP #1 PP5-4P-B(1)	UNIT, AMS 2, FR 16 STBD	AL	T	K
POTABLE WATER PUMP #2 PP5-4P-C(1)	UNIT, AMS 2, FR 16 STBD	AL	T	K
CATHODIC PROTECTION SYS PORT ANODE	ACCESS, TOW GR LKR, FR 9 PORT	AL	T	J
CATHODIC PROTECTION SYS STBD ANODE	ACCESS, TOW GR LKR, FR 9 STBD	AL	T	J
GENERAL ALARM WHEN BELL RINGS GO TO YOUR STATION	LOCATE UNDER EACH ALARM BELL	AL	T	1/2" HIGH RED LETTER- ING PLATE SIZE 6" x 3"

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
INTERIOR LIGHTING SW	BHD	AL	T	J
RECEPTACLE DP3-1L-J 115V 60HZ-1PH	BHD, CREWS STATEROOM No. 4, FR 45 STBD	AL	T	K
RECEPTACLE DP3-1L-D 115V 60HZ 1PH	BHD, DAMAGE CONTROL LOCKER, FR 54 PORT	AL	T	K
RECEPTACLE DP4-1L-H 115V 60HZ 1PH	BHD, DAMAGE CONTROL LOCKER, FR 21 STBD	AL	T	K
RECEPTACLE DP2-1P-R 115V-60HZ-1PH	BHD, RADIO ROOM, FR 40 STBD	PH WH/BK		K
SHORE POWER BREAKER IS INTERLOCKED SO IT CANNOT BE CLOSED UNLESS THE PLUG IS IN THE SHORE POWER RECEPTACLE	MAIN SWBD NEAR SHORE PWR BREAKER, E.O.S., FR 42 PORT	PH	T	N
NOTE: FAN ROOM DOOR MUST BE CLOSED DURING ALL TOWING OPERATIONS	OUTSIDE OF DOOR, FANTAIL WEATHER, FR 21 PORT	AL	T	G NOTE- RED LTRS, FOLLOW- ING INSTRUC- TIONS ARE BLACK
HEATER ACCESS	PNL ACCESS DOOR INSIDE CLEANING GR LOCKER, BOSN STORE, FR 59 STBD	AL	T	L
TOWING MACHINES CONTROL PANEL	FRONT OF CONT. PANEL, VEST, FR 24 PORT	AL	T	J
ANCHOR WINDLASS CONTROL STATION	FOUNDATION, FORE DK, WEATHER, FR 54 STBD	AL	T	L
HEAVE IN PAY OUT	UNIT, FORE DK, WEATHER FR 54 STBD	AL	T	1 1/2" x 6" HIGH
CLOCKWISE COUNTER CLOCKWISE	TOW MACH JUST AFT OF CAPSTAN CONTROL, FANTAIL, FR 19 STBD	AL	T	2" x 6"
RADIO ROOM LAMP EL1-1EL-J	LAMP UNIT, RADIO RM, FR 43 C.L.	PH WH/BK		1" x 3/4"

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CONTROL UNIT GYRO ELC-24EP-3	UNIT, PILOT HSE, FR 40 PORT	PH WH/BK		3"W x 1" H
RECEPTACLE DP2-1P-R	RECEPTACLE, RADIO RM, FR 43 PORT	PH WH/BK		3"W x 1" h
PORT TOW PINS K-2EH5	CONTROL BOX, FANTAIL, WEATHER, FR 11 PORT	PH BK/WH		J
STBD TOW PINS K-1EH5	CONTROL BOX, FANTAIL, WEATHER, FR 11 STBD	PH BK/WH		J
PORT TOW PIN	AFT TOW CONSOLE, 01 DK, WEATHER, FR 20 STBD	AL	T	J
STBD TOW PIN	AFT TOW CONSOLE, 01 DK, WEATHER, FR 20 STBD	AL	T	J
INBD RAISE	ABOVE TOGGLE SWITCH (TOW PIN TOGGLE SWITCH LABEL)	AL	T	J
OTBD RAISE	ABOVE TOGGLE SWITCH (TOW PIN TOGGLE SWITCH LABEL)	AL	T	J
LOWER	BELOW TOGGLE SWITCH (TOW PIN TOGGLE SWITCH LABEL)	AL	T	J
SLIP ALARM CUT-OUT (STBD) (PORT)	AFT TOW CONSOLE BELOW SWITCHES, 01 DK, WEATHER, FR 20 STBD	AL	T	3/4" x 2"
CLOSE	BHD, AMS 1, FR 44 STBD, (SLIDING WT DOOR CRANK)	AL	T	F
CLOSE	BHD, AMS 2, FR 21 STBD, (SLIDING WT DOOR CRANK)	AL	T	F
CLOSE	BHD, MN DK VEST, FR 24 PORT, (SLIDING WT DOOR CRANK)	AL	T	F
CLOSE	BHD, MN DK PASS, FR 40 STBD (SLIDING WT DOOR CRANK)	AL	T	F
CLOSE	BHD, ENG RM, FR 44 STBD (SLIDING WT DOOR CRANK)	AL	T	F
CLOSE	BHD, ENG RM, FR 21 STBD (SLIDING WT DOOR CRANK)	AL	T	F

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PAY OUT LOCAL CONTROL HEAVE IN	TOW MACH, JUST AFT OF LOCAL CONTROLLER, FANTAIL, FR 18 P/S	AL	T	U 2" x 4"
AUX. DRUM BRAKE CONTROL	TOW MACH, UNIT FANTAIL, FR 18 P/S	AL	T	J
CLUTCH / BRAKE CONTROL	TOW MACH, UNIT FANTAIL, FR 18 P/S	AL	T	J
FM200 ALARM	BHD ADJACENT TO AMBER LAMP, ENG RM, FR 21 PORT	PH WH/RD		2"W x 1" H
FUEL DAY TK (PORT) HIGH LEVEL ALARM	BHD ADJACENT TO RED LAMP, ENG RM, FR 21 PORT	PH WH/RD		2"W x 1" H
FUEL DAY TK (STBD) HIGH LEVEL ALARM	BHD ADJACENT TO RED LAMP, ENG RM, FR 21 STBD	PH WH/RD		2"W x 1" H
FM-200 SHUTDOWN EDP1-24EP-M(4)	UNIT, ENG RM, FR 38 PORT	AL	T	P
CRANE LOAD MONITORING EDP1-24EP-M(13)	UNIT, ENG RM, FR 38 PORT	AL	T	P
F.O. DAY TK HIGH LEVEL ALARM EDP1-24EP-M(6)	UNIT, ENG RM, FR 38 PORT	AL	T	P
MACHINERY MONITOR SYS EDP1-24EP-M(7)	UNIT, ENG RM, FR 38 PORT	AL	T	P
PUMP DRIVE ENGINE EDP1-24EP-M(8)	UNIT, ENG RM, FR 38 PORT	AL	T	P
BOW THRUSTER DRIVE ENG EDP1-24EP-M(9)	UNIT, ENG RM, FR 38 PORT	AL	T	P
SPARE EDP1-24EP-M(10)	UNIT, ENG RM, FR 38 PORT	AL	T	P
STEERING GEAR ALM EDP1-24EP-M(11)	UNIT, ENG RM, FR 38 PORT	AL	T	P
SSDG No. 2 EDP1-24EP-M(12)	UNIT, ENG RM, FR 38 PORT	AL	T	P
SPARE EDP1-24EP-M(5)	UNIT, ENG RM, FR 38 PORT	AL	T	P
SPARE EDP1-24EP-M(14)	UNIT, ENG RM, FR 38 PORT	AL	T	P
SPARE EDP1-24EP-M(15)	UNIT, ENG RM, FR 38 PORT	AL	T	P

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
ZONE 2	BHD ADJACENT TO FIRE PULL, 01 DK PASSAGE, FR 48 PORT	PH WH/RD		1 1/2" x 1" H
ZONE 2	BHD ADJACENT TO FIRE PULL, 01 DK PASSAGE, FR 48 STBD	PH WH/RD		1 1/2" x 1" H
ZONE 2	BHD ADJACENT TO FIRE PULL, 01 DK PASSAGE, FR 34 CL	PH WH/RD		1 1/2" x 1" H
ZONE 3	BHD ADJACENT TO FIRE PULL, MN DK PASSAGE, FR 10 CL	PH WH/RD		1 1/2" x 1" H
ZONE 3	BHD ADJACENT TO FIRE PULL, MN DK PASSAGE, FR 26 CL	PH WH/RD		1 1/2" x 1" H
ZONE 3	BHD ADJACENT TO FIRE PULL, MN DK PASSAGE, FR 22 STBD	PH WH/RD		1 1/2" x 1" H
ZONE 4	BHD ADJACENT TO FIRE PULL, ENG RM, FR 43 STBD	PH WH/RD		1 1/2" x 1" H
ZONE 4	BHD ADJACENT TO FIRE PULL, ENG RM, FR 26 STBD	PH WH/RD		1 1/2" x 1" H
MAIN ECDIS EXDP-1EP-C	DISPLAY UNIT, PILOT HSE, FR 50 STBD	PH BK/WH		2"W x
BACK-UP ECDIS EXDP-1EP-B	DISPLAY UNIT, PILOT HSE, FR 39 PORT	PH BK/WH		2"W x
BINNACLE LIGHT ELC-24EP-6	OVERHEAD PANEL PORT, PILOT HSE, FR 50 PORT	PH WH/BK		3"W x 1 1/4"H
STEERING SYS DIMMER DCEDP-24EP-PFM-G	UNIT, PILOT HOUSE, FR 45 STBD	AL	T	P
SEE TYPE V (TABLE 25)	PLATE TO BE CONCAVE TO SLIDE INTO FIRE & SMOKE REMOTE PNL GUIDES, PILOT HOUSE, FR 48 PORT	AL		V
SEE TYPE W (TABLE 25)	PLATE TO BE CONCAVE TO SLIDE INTO FIRE & SMOKE REMOTE PNL GUIDES, PILOT HOUSE, FR 48 PORT	AL		W
LSHT-HANDLE OUTBD HSLT-HANDLE FWD	ANCHOR WINDLASS CONTROL STATION, FORE DK, WEATHER, FR 54 STBD	AL	T	F

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
REMOTE CONTROL SLIDING WATERTIGHT DOOR. BHD 44	BHD, MN DK PASSAGE WAY, FR 40 STBD	AL	T	K
REMOTE CONTROL SLIDING WATERTIGHT DOOR BHD21	BHD, MN DK VEST, FR 24 PORT	AL	T	K
X – BAND RADAR	SEAT ON MAST, FR 40 C.L.	PH WH/BK		3"W x 1" H
S – BAND RADAR	SEAT ON MAST, FR 40 C.L.	PH WH/BK		3"W x 1" H
MULTI TACTICAL MULTI BAND WHIP	SEAT ON MAST, FR 42 P/S	PH WH/BK		3"W x 1" H
HF WHIP TACTICAL	SEAT ON MAST, TOP OF STACK, FR 28 STBD	PH WH/BK		3"W x 1" H
HF/HF WHIP (GMDSS)	SEAT ON MAST, TOP OF STACK, FR 28 PORT	PH WH/BK		3"W x 1" H
VHF WHIP	SEAT ON MAST, PILOT HOUSE ROOF, FR 48 STBD	PH WH/BK		3"W x 1" H
TACSAT (SOTM)	SEAT ON MAST, PILOT HOUSE ROOF, FR 38 P/S	PH WH/BK		3"W x 1" H
TV & RADIO	SEAT ON MAST, PILOT HOUSE ROOF, FR 46 PORT	PH WH/BK		3"W x 1" H
EPIRB TYPE 1 SATALLITE 406 MH	SEAT ON MAST, PILOT HOUSE ROOF, FR 46 STBD	PH WH/BK		3"W x 1" H
RF TRANSCEIVER FLEET – 77	SEAT ON MAST, PILOT HOUSE ROOF, FR 38 STBD	PH WH/BK		3"W x 1" H
GPS/DGPS ANTENNA	SEAT ON MAST, MAST, FR 39 P/S	PH WH/BK		3"W x 1" H
IFF ANTENNA	SEAT ON MAST, MAST, FR 39 PORT	PH WH/BK		3"W x 1" H
61202 BAROMETRIC PRESSURE SENSOR	SEAT ON MAST, MAST, FR 39 PORT	PH WH/BK		3"W x 1" H
41372 VC RELATIVE HUMIDITY / TEMPERATURE	SEAT ON MAST, MAST, FR 39 PORT	PH WH/BK		3"W x 1" H
06206 MARINE WIND TRACKER	SEAT ON MAST, MAST HEAD, FR 39 C.L.	PH WH/BK		3 1/2"W x 1" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GMDSS J8 INMARSAT. CAPSAT	SEAT ON MAST, MAST, FR 39 C.L.	PH WH/BK		3 1/2"W x 1" H
GPS PLGR	SEAT ON MAST, MAST, FR 37 P/S	PH WH/BK		3"W x 1" H
INTERIOR LIGHTING SW EL1-1EL-H	ABOVE LT SW TOP OF STAIR WELL, PILOT HSE, FR 45 PORT	PH BK/WH		3"W x 1" H
INTERIOR LIGHTING SW DP2-1L-A	ABOVE LT SW, 01 PASSAGE WAY, FR 47 PORT	PH WH/BK		3"W x 1 1/4" H
NAV LTG PANEL ELC-1EL-NLP	ON UNIT, PILOT HOUSE, FR 42 PORT	PH BK/WH		3"W x
SMALL ARMS RM SPRINKLER – WTR	ON DOOR ALARM UNIT, PILOT HOUSE, FR 48 PORT	PH RD/WH		1 1/2"W x 1" H
RADIO ROOM DOOR OPEN	ON DOOR ALARM UNIT, PILOT HOUSE, FR 48 PORT	PH RD/WH		1 1/2"W x 1" H
FAN ROOM DOOR OPEN	ON DOOR ALARM UNIT, PILOT HOUSE, FR 48 PORT	PH RD/WH		1 1/2"W x 1" H
SMALL ARMS RM HIGH TEMP	ON DOOR ALARM UNIT, PILOT HOUSE, FR 48 PORT	PH RD/WH		1 1/2"W x 1" H
DOOR ALARM MUST BE ACTIVE DURING ALL TOWING OPERATIONS	ON DOOR ALARM UNIT, PILOT HOUSE, FR 48 PORT	PH RD/WH		1 1/2"W x 1" H
SURVIVAL RADIO	RADIO BKT, PILOT HOUSE, FR 44 PORT	PH WH/BK		2" W x 1" H
CLEARVIEW FWD EL2-1EL-D	ABOVE UNIT ON CONSOLE, PILOT HOUSE, FR 52 STBD	PH WH/BK		3" W x 1 1/4" H
CLEARVIEW AFT EL2-1EL-D	ABOVE UNIT ON CONSOLE, PILOT HOUSE, FR 38 PORT	PH WH/BK		3" W x 1 1/4" H
SCREEN ELEMENT PNL FWD+PORT PEDP-1EP-NAFT +STBD PEDP-1EP-P	ABOVE UNIT ON CONSOLE, PILOT HOUSE, FR 51 PORT	PH WH/BK		3" W x 1 1/4" H
WINDSCREEN WIPER PNLEL2-1EL-E PORT/STBD FWDEL2-1EL-J STBD/PORT FWD	OVERHD PANEL PORT, PILOT HOUSE, FR 51 PORT	PH WH/BK		3" W x 1 1/4" H
WIPER MOTOR EL2-1EL-J	WINDOW MULLION ADJAC TO MOTOR, PILOTHOUSE, FR 51 P/S	PH WH/BK		2"W x 1" H



Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
WIPER MOTOR EL2-1EL-E	WINDOW MULLION ADJACTO MOTOR, PILOTHOUSE, FR 51 P/S	PH WH/BK		2"W x 1" H
WINDOW HEATER PEDP-1EP-N	FWD WINDOWS, PILOT HOUSE, FR 52 P/S	PH WH/BK		2"W x 1" H
WINDOW HEATER PEDP-1EP-P	AFT WINDOWS, PILOT HOUSE, FR 38 P/S	PH WH/BK		2"W x 1" H
FOG HORN CONTROL S/WEXDP-1EP-N	OVERHD PANEL STBD, PILOT HOUSE, FR 51 STBD	PH WH/BK		2"W x 1" H
E.O.T. POWER FAILALARM	CONSOLE, PILOT HOUSE, FR 51 PORT	PH WH/BK		2"W x 1" H
RECEPTACLE DP2-1L-N	ABOVE RECEPTACLE, PILOT HOUSE, FR 49 P/S	PH WH/BK		2"W x 1" H
WATER FOUNTAIN COFFEE MAKER DP2-1P-P	ON UNIT, PILOT HOUSE, FR 42 STBD	PH WH/BK		3"W x 1 1/4" H
12V BATT CHARGER PEDP-12EP-D	ON UNIT, PILOT HOUSE, FR 40 PORT	PH WH/BK		3"W x 1 1/4" H
GMDSS BATT CHARGER EXDP-1EP-H	ON UNIT, PILOT HOUSE, FR 40 PORT	PH WH/BK		3"W x 1 1/4" H
EMER BATT CHARGER ELC-1EP-A	ON UNIT, PILOT HOUSE, FR 40 C.L.	PH WH/RD		3"W x 1 1/4" H
GMDSS 12V DISCONNECT S/W PEDP-12EP-D(2)	ON UNIT, PILOT HOUSE, FR 40 C.L.	PH WH/RD		3"W x 1 1/4" H
GMDSS DISCONNECT S/W EXDP-1EP-H	ON UNIT, PILOT HOUSE, FR 40 C.L.	PH WH/BK		3"W x 1 1/4" H
ALARM PANEL JB DOOR ALARM PNL PILOT HOUSE EL1-1EL-K	ON UNIT, PILOT HOUSE, FR 48 PORT	PH WH/RD		3"W x 1 1/4" H
FIRE ALARM ZONE 1C-SM30A	BHD BELOW BEACON, RADIO ROOM, FR 42 STBD	PH WH/RD		3"W x 2 1/2"H
GENERAL ALARM C-G3	BHD BELOW BEACON, RADIO ROOM, FR 42 STBD	PH WH/RD		3"W x 2 1/2"H
PILOT HOUSE RECEPT J.B. DP2-1L-N	BHD IN PASSAGE, 01 PASSAGE OVERHEAD, FR 48 CL	PH WH/BK		X 2" x 2"
ZONE 1	PULL STATION, 01 PASSAGE OVERHEAD, FR 43 P/S	PH WH/RD		1 1/4" W x 1" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
ZONE 1	PULL STATION, 01 PASSAGE OVERHEAD, FR 42 PORT	PH WH/RD		1 1/4" W x 1" H
PILOT HSE RECEIPT J.B. DP2-1L-N	BHD, 01 PASSAGE OVERHEAD, FR 48 C/L	PH WH/BK		X 2" W x 1" W
RADIO ROOM EMERGENCY LIGHTS J.B. EL1-1EL-J	PASSAGE BHD, 01 PASSAGE OVERHEAD, FR 40 C/L	PH WH/BK		X 2" x 2"
TASK LIGHTS J.B. ELC-24EP-1	STBD PASSAGE BHD, 01 PASSAGE OVERHEAD, FR 40 STBD	PH WH/BK		X 2" W x 1" H
RADIO ROOM RECEIPT J.B. DP2-1P-R	BHD IN PASSAGE, 01 PASSAGE OVERHEAD, FR 48 CL	PH WH/BK		X 2" x 2"
01 LEVEL J.B. PASSAGE LIGHTS DP2-1L-C	BHD IN PASSAGE, 01 PASSAGE OVERHEAD, FR 37 CL	PH WH/BK		X 2" x 2"
C-SM-28 C-SM-27	FIRE ALARM PULL STATION PILOT HSE, FR 43 PORT	PH WH/RD		1 1/2" W x 1" H
C-SM-27 C-SM-26	FIRE ALARM PULL STATION PILOT HSE, FR 42 PORT	PH WH/RD		1 1/2" W x 1" H
C-SM-26 C-SM-25	FIRE ALARM PULL STATION PILOT HSE, FR 42 PORT, 44 STBD	PH WH/RD		1 1/2" W x 1" H
C-SM-25 C-SM-24	FIRE ALARM PULL STATION PILOT HSE, FR 43 STBD	PH WH/RD		1 1/2" W x 1" H
C-SM-24	FIRE ALARM PULL STATION PILOT HSE, FR 45 STBD	PH WH/RD		1 1/2" W x 1" H
GMDSS WATCH RECEIVER	TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
AN/PSN-11 INTERFACE & SWITCH BOX	ABOVE TABLE CONSOLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
GMDSS INMARSAT C DATA TERMINAL	TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
GMDSS INMARSAT C PRINTER	TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
GMDSS HF DSC PRINTER	TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GMDSS NAVTEX RECEIVER	ABOVE TABLE CONSOLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
AN/PSN-11 GPS RECEIVER (NAVIGATION)	ABOVE TABLE CONSOLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
AN/PSN-11 GPS RECEIVER (COMMUNICATIONS)	ABOVE TABLE CONSOLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3" W x 1 1/2" H
SEARCH & RESCUE TRANSPONDER	SIDE PANELLING, PILOT HOUSE, FR 44 P/S	PH WH/BK		3" W x 1 1/2" H
GMDSS MF/HF POWER RELAY THIS UNIT CONTAINS TWO POWER SOURCES	UNIT UNDER TABLE, PILOT HOUSE, FR 40 STBD	PH WH/BK		3" W x 1 1/2" H
GMDSS MF/HF ANTENNA COUPLER	UNIT, 01 DK, STACK, FR 31 PORT	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS SEATOR SERIAL PRINTER	TABLE, PILOT HSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS SEATOR MODEM	TABLE, PILOT HSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS DSC WATCH RECEIVER ANTENNA	SEAT ON W/H TOP, FR 45 STBD	PH WH/BK		3 1/2" W x 1" H
GMDSS MF/HF TRANSCEIVER POWER C/O RELAY BOX	UNDER STBD TABLE, PILOT HSE, FR 49 STBD	PH WH/BK		3 1/2" W x 1" H
GMDSS DSC 500 VHF 110-12V POWER SUPPLY	D/HEAD LINING, PILOT HSE, FR 49 STBD	PH WH/BK		3 1/2" W x 1" H
GMDSS POWER SUPPLY 110-12V	UNDER TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1" H
GMDSS MF/HF TRANSCEIVER	UNDER TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS SEATOR DATA TERMINAL	TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS MF/HF 110-24V POWER SUPPLY	UNDER TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H
GMDSS NAVTEX RECEIVER ANTENNA	ABOVE TABLE CONSOLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1" H
GMDSS POWER C/O RELAY BOX	UNDER TABLE, PILOT HOUSE, FR 39 STBD	PH WH/BK		3 1/2" W x 1 1/2" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GMDSS DSC500 VHF POWER C/O RELAY BOX	D/HEAD LINING, PILOT HSE, FR 49 STBD	PH WH/BK		2 1/4" W x 1" H
120V RADAR DIST PANEL PEDP 1EP-J(1)	UNIT, PILOT HSE, FR 40 STBD	PH WH/BK		3 1/2" W x 1 1/4" H
MAIN ECDIS [UPS) EXDP-1EP-C	UNIT OUTSIDE RADIO RM, PILOT HSE, FR 40 PORT	PH WH/BK		3"W x 1" H
BACK -UP ECDIS (UPS) EXDP-1EP-B	UNIT OUTSIDE RADIO RM, PILOT HSE, FR 40 PORT	PH WH/BK		3"W x 1" H
GENERAL ALARM & EMERGENCY LIGHTING ELC-24EP-A(2)	UNIT IN RADIO RM, FR 43 PORT	PH		3"W x 1 1/4" H
FRESH AIR SUPPLY FANS DP2-1L-B	CONSOLE FRONT, PILOT HSE, FR 50 PORT	PH BK/WH		3"W x 1" H
REMOTE CONTROL SLIDING WATERTIGHT DOOR BHD 21	BHD, MESS, FR 26 CL	PH WH/RD		9" x 9 1/2"
AMS-2 SUPPLY FANS 1-22-2 PP3-4P-(1)	BHD NEAR FAN STOP, VESTIBULE, FR 21 PORT	PH BK/WH		3"W x 1 1/2" H
NEWMAR STEP DOWN TRANSFORMER EDP-4EP-G(1)	01 DK AFT FAN RM, FR 31 PORT	PH WH/BK		3" W x 1" H
STBD NAV LIGHT NLP-1EL-G	UNIT, PILOT HSE TOP, FR 40 STBD	PH BK/WH		2"W x 1" H
PORT NAV LIGHT NLP-1EL-F	UNIT, PILOT HSE TOP, FR 40 PORT	PH BK/WH		2"W x 1" H
N.U.C. RECEIPT NLP-1EL-J	MAST, PILOT HSE TOP, FR 39 CL	PH BK/WH		2"W x 1" H
S-BAND RADAR RPDP-1EP-A	UNIT, PILOT HSE, FR 50 STBD	PH WH/BK		3"W x 1" H
X-BAND RADAR RPDP-1EP-C	UNIT, PILOT HSE, FR 50 STBD	PH WH/BK		3"W x 1" H
BOW THRUSTER CONTROL ELC-24EP-4	STBD FWD CONSOLE ALSO UNDER STBD FWD CONSOLE, PILOT HSE, FR 50 STBD	PH WH/BK		2"W x 1" H
P.H. LIGHTS EL1-1EL-H	PORT ABOVE CONSOLE, PILOT HSE, FR 51 PORT	PH WH/BK		2"W x 1" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
DECK LIGHT EL2-1EL-G	W/HOUSE SIDES, 02 WEATHER, FR38-52 P/S	PH WH/BK		2"W x 1" H
CONSOLE HEATER	UNIT INSIDE WING CONSOLE, 01 WEATHER, FR 45 P/S	PH WH/BK		2"W x
RUDDER ANGLE IND ELC-24EP-9	FWD PORT CONSOLE, PILOT HSE, FR 50 PORT	PH WH/BK		2"W x
DECK / CONSOLE LIGHTING PNL DECK 01 = EL2-1EL-B DECK 02 = EL2-1EL-G CONSOLE = ELC-24EP-11	FWD PORT CONSOLE, PILOT HSE, FR 50 PORT	PH WH/BK		2 1/2"W x
CONSOLE ILLUMINATION ELC-24EP-11	FWD CONSOLES ADJACENT TO LAMP, PILOT HSE, FR 51 P/S	PH WH/BK		1 1/2"W x 1/2" H
SOUND POWER PHONE CEM1C-JV-L1	PHONE, PILOT HSE TOP, FR 43	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE CEM2C-JV-L2	PHONE, PILOT HSE, FR 46 STBD	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE CEM3C-JV-L3	PHONE, 02 PORT WEATHER DK, FR 46 PORT	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE CEM4C-JV-L4	PHONE, 02 STBD WEATHER DK, FR 46 STBD	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE CEM5C-JV-L5	PHONE, 02 WEATHER DK FWD, FR 52 CL	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE CEM6C-JV-L6	PHONE, 02 WEATHER DK AFT, FR 38 PORT	PH WH/BK		2"W x 1 1/2" H
HEAD SET JACK C-J2-A	ABOVE JACK, 01 FAN ROOM, FR 45 PORT	PH WH/BK		2"W x 1 1/2" H
HEAD SET JACK C-JV-L9A	ABOVE JACK, PILOT HSE TOP, FR 43	PH WH/BK		2"W x 1 1/2" H
HEAD SET JACK C-JV-L1A	ABOVE JACK, RADIO ROOM, FR 44 PORT	PH WH/BK		2"W x 1 1/2" H
EMERGENCY LIGHT ELC-24EP-1	ABOVE TABLE CONSOLES & DESK, PILOT HSE, FR 41 P/S, FR 45 CL	PH WH/RD		1 1/2"W x 3/4" H
ALARM PANEL ELC-24EP-10	FWD PORT CONSOLE, PILOT HSE, FR 51 PORT	PH WH/BK		2"W x 1" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PORT SEARCHLIGHT PEDP-1EL-B	FWD CONSOLE, PILOT HSE, FR 51 PORT	PH WH/BK		2 1/2" W 1" H
STB,D SEARCHLIGHT PEDP-1EL-H	FWD CONSOLE, PILOT HSE, FR 51 PORT	PH WH/BK		2 1/2" W 1" H
NEWMAR POWER SUPPLY 60A FUSED DISCONNECT SWITCH EDP-2EP-G(2)	UNIT, 01 AFT FAN ROOM, FR 32 PORT	PH WH/BK		3"W x 1"H
NEW MAR BATTERY CHARGER EDP-2EP-G(3)	UNIT, 01 AFT FAN ROOM, FR 32 PORT	PH WH/BK		3"W x 1"H
200A FUSED BATTERY DISCONNECT SWITCH	BHD, 01 FAN RM, FR 33 PORT	PH WH/BK		3"W x 1"H
24 DC EXHAUST FAN DCEDP-24EP-G(10) FROM PWR MODULE - 2	UNIT, 01 FAN RM, FR 33 PORT	PH WH/BK		3"W x 1"H
CONSOLE HEATER PORT FB1-1P-F	UNIT, EXTERNAL WING CONSOLE, FR 45 PORT	PH WH/BK		2"W x 1" H
CONSOLE HEATER STBD FB1-1P-G	UNIT, EXTERNAL WING CONSOLE, FR 45 STBD	PH WH/BK		2"W x 1" H
GENERAL ALARM C-G8	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
STALK LIGHTS ELC-24EP-1	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
BOWTHRUSTER CONTROL ELC-24EP-4	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
GYRO COMPASS ELC-24EP-3	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
SPARE ELC-24EP-12	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
BINNACLE LIGHT ELC-24EP-6	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
SPEED LOG DISPLAY ELC-24EP-5	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
SPEED LOG DISTRIBUTION ELC-24EP-8	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
WINDSCREEN WASH VALVE ELC-24EP-7	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
PILOT HOUSE ALARM PNL ELC-24EP-10	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
RUDDER ANGLE IND ELC-24EP-9	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
PILOTHOUSE CONSOLE ILLUMINATION ELC-24EP-11	GEN ALARM & EMERG LIGHTING PANEL, RADIO RM, FR 42 PORT	PH BK/WH		2"W x 1 1/4" H
SOUND POWER PHONE C-JV-L7	PHONE, 01 DK WEATHER, FR 54 STBD	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE C-JV-L8	PHONE, CAPT S/ROOM	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE C-JV-L9	PHONE, CHIEF ENG S/ROOM	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE C-JV-L10	PHONE, OFFICER S/ROOM No. 2	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE C-JV-L11	PHONE, OFFICER S/ROOM No. 1	PH WH/BK		2"W x 1 1/2" H
SOUND POWER PHONE C-JV-L12	PHONE, EMER GEN ROOM	PH WH/BK		2"W x 1 1/2" H
HEAD SET JACK C-JV-L13A	ABOVE JACK, 01 DK, AFT FACE OF STACK, FR 25 PORT	PH WH/BK		2"W x 1 1/2" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
HEAD SET JACK C-JV-L13B	ABOVE JACK, 01 DK, AFT FACE OF STACK, FR 25 STBD	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L13C	PHONE, 01 AFT DK, FR 21 STBD	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L14	PHONE, DAMAGE CONTROL LOCKER	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L15	PHONE, CREWS MESS	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L16	PHONE, GALLEY	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L17	PHONE, FANTAIL WEATHER, FR 14 PORT	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L18	PHONE, AMS No. 1	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L19	PHONE, EOS	PH WH/BK		2"W x 1 1/2"H
SOUND POWER PHONE C-JV-L20	PHONE, AMS No. 2	PH WH/BK		2"W x 1 1/2"H
BOATSWAINS STORE EXHAUST FAN (E1-62-2)	FAN CONTROL BOX, B/SWAIN STORE, FR 57 PORT	PH WH/BK		3 1/2"W x 1" H
VENT PANEL	MAIN SWITCHB'D	PH WH/RD		3"W x 2" H
STEERING GEAR PUMP 23P 450V 300A INST	MAIN SWITCHB'D	PH WH/BK		3 1/2"W x 1" H
ROWPU BATTERY	BATTERY BOX, ENGINE ROOM, FR 17 PORT	PH WH/BK		3 1/2" W x 1" H
LEICA 1	BELOW UNIT, PILOT HSE, FR 41 PORT	PH WH/BK		3" W x 1" H
LEICA 2	BELOW UNIT, PILOT HSE, FR 41 PORT	PH WH/BK		3" W x 1" H
LUB OIL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H



Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
1 PORT FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
1 STBD FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
2 STBD FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
2 PORT FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
2 CENTER FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
3 CENTER FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
4 STBD FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
4 PORT FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
STBD DAY TK FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
PORT DAY TK FUEL	MASTER TK LVL PANEL (11 CHANNEL), EOS, FR 39 PORT	PH WH/BK		2 1/4" W x 1/2" H
CHT	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
SLUDGE	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
FW STBD	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
FW PORT	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
BLST PEAK	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
BLST 2 STBD	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H
BLST 2 PORT	MASTER TK LVL PANEL (7 CHANNEL), EOS, FR 44 PORT	PH WH/BK		2 1/4" W x 1/2" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
GYRO REPEATER	UNDER UNIT ON ABOVE PORT FWD CONSOLE, PILOT HSE, FR 52 PORT	PH WH/BK		2"W x 1" H
MARINE VHF RADIO	UNDER UNIT ON ABOVE PORT FWD CONSOLE, PILOT HSE, FR 52 PORT	PH WH/BK		2"W x 1" H
WIND TRACKER TRANSLATOR	UNDER UNIT ON ABOVE PORT CHART CONSOLE, PILOT HSE, FR 41 PORT	PH WH/BK		2"W x 1" H
BACK-UP ECDIS	AN/PSN-11 UNIT ON ABOVE PORT CHART CONSOLE, PILOT HSE, FR 41 PORT	PH WH/BK		3/4"W x 3/4" H
MAIN ECDIS	AN/PSN-11 UNIT ON ABOVE PORT CHART CONSOLE, PILOT HSE, FR 41 PORT	PH WH/BK		3/4"W x 3/4" H
NAUTOCONNING	AN/PSN-11 UNIT ON ABOVE PORT CHART CONSOLE, PILOT HSE, FR 41 PORT	PH WH/BK		3/4"W x 3/4" H
ON            OFF	AN/PSN-11 UNIT ON ABOVE PORT CHART CONSOLE, PILOT HSE, FR 41 PORT	PH WH/BK		Z 3/4"W x 3/4" H
RECEPTACLE RACK 3 UPS EXDP-1EP-A	BHD, RADIO ROOM, FR 43 STBD	PH WH/BK		K
RECEPTACLE RACK 2 POWER SUPPLY EXDP-1EP-D	BHD, RADIO ROOM, FR 45 CL	PH WH/BK		K
RECEPTACLE RACK 2 POWER SUPPLY EXDP-1EP-E	BHD, RADIO ROOM, FR 45 CL	PH WH/BK		K
FWD 02 LVL    AFT 02 LVL PASS 01 LVL    AFT 01 LVL MESS BOSN    STORE RM AMS 1            AMS 2 EOS            ENG ROOM	PA UNIT, PILOT HSE, FR 51 PORT	PH WH/BK		ZA 4 1/2"W x 1" H
WARNING GYRO COMPASS MUST BE OPERATIONAL 3 TO 5 HOURS BEFORE OPERATION OF VESSEL	GYRO COMPASS CONTROL UNIT, PILOT HSE, FR 40 PORT	PH WH/RD		7"W x 5" H

Table 21. Electrical Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
CAUTION DO NOT TURN OFF WHILE VESSEL IS IN OPERATION. DAMAGE TO EQUIPMENT AND/OR PERSONNEL MAY OCCUR.	EMERG BATTERY CHARGER PILOT HSE, FR 40 STBD	PH WH/RD		5”H x 3” H
GYRO COMPASS “CAUTION” DO NOT TURN OFF WHILE VESSEL IS IN OPERATION. DAMAGE TO EQUIPMENT AND/OR PERSONNEL MAY OCCUR.	TOP OF GEN ALARM & EMERG. LIGHTING UNIT, RADIO RM, FR 42 PORT	PH WH/RD		3”W x 3” H
GYRO COMPASS “CAUTION” DO NOT TURN OFF WHILE VESSEL IS IN OPERATION. DAMAGE TO EQUIPMENT AND/OR PERSONNEL MAY OCCUR.	FRONT OF GEN ALARM & EMERG. LIGHTING UNIT, RADIO RM, FR 42 PORT	PH WH/RD		2”W x 1 1/4” H

Table 22. Piping Instrumentation Label Plates

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
SEWAGE PMP No. 1 DISCH . PRESS	PANEL No. 3	AL	T	1" x 2"
SEWAGE PMP No. 2 DISCH PRESS	PANEL No. 4	AL	T	1" x 2"
RDCN GR #1 FW COOLING PMP DISCH PRESS	PANEL No. 9	AL	T	1" x 2"
RDCN GR #2 FW FW COOLING PMP DISCH PRESS	PANEL No. 9	AL	T	1" x 2"
FF PMP SUCT STR DIFF PRESS	PANEL No. 4	AL	T	1" x 2"
OILY BILGE XFR PMPSTR DIFF PRESS	PANEL No. 7	AL	T	1" x 2"
BALLAST SUCT STR DIFF PRESS	PANEL No. 11	AL	T	1" x 2"
BILGE SUCTION STR DIFF PRESS	PANEL No. 11	AL	T	1" x 2"
AFT SEA CHEST SUCTION STR DIFF PRESS	PANEL No. 13	AL	T	1" x 2"
S.W. STR DIFF PRESS	PANEL No. 17	AL	T	1" x 2"
FO XFR FILTER DIFF PRESS	PANEL No. 8	AL	T	1" x 2"
POT WTR PMP #1 DISCH PRESS	PANEL No. 10	AL	T	1" x 2"
POT WTR PMP #2 DISCH PRESS	PANEL No. 10	AL	T	1" x 2"
BILGE / BALLAST PMP #1 DISCH PRESS	PANEL No. 11	AL	T	1" x 2"
BILGE / BALLAST PMP #2 DISCH PRESS	PANEL No. 11	AL	T	1" x 2"
GENERAL SVCE HEADER PRESS	PANEL No.12	AL	T	1" x 2"
#1 FIRE / GENL SVCE PMP DISCH PRESS	PANEL No.12	AL	T	1" x 2"
#2 FIRE / GENL SVCE PMP DISCH PRESS	PANEL No.12	AL	T	1" x 2"
FIRE MAIN PRESS	PANEL No.1	AL	T	1" x 2"
BOW THRUSTER ENG STG AIR PRESS	PANEL No.1	AL	T	1" x 2"

Table 22. Piping Instrumentation Label Plates (continued)

(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
PMP DR ENG STG AIR PRESS	PANEL No.1	AL	T	1" x 2"
SSDG #2 STG AIR PRESS	PANEL No. 5	AL	T	1" x 2"
SHIP SERVICE AIR PRESS	PANEL No. 14	AL	T	1" x 2"
AIR CPRSR # 1DISCH PRESS	PANEL No. 14	AL	T	1" x 2"
AIR CPRSR # 2DISCH PRESS	PANEL No. 14	AL	T	1" x 2"
SW TO OILY WTR SEP PRESS	PANEL No. 7	AL	T	1" x 2"
AFFF PROPORTIONER DIFF PRESS	PANEL No. 17	AL	T	1" x 2"
OILY BILGE XFR PMP DISCH PRESS	PANEL No. 7	AL	T	1" x 2"
HOT WTR RECIRC PMP DIFF PRESS	PANEL No. 6	AL	T	1" x 2"
RDCN GR No.1 FW COOLING TEMP	TAG TO STEM OF GAUGE	AL		B
RDCN GR No.2 FW COOLING TEMP	TAG TO STEM OF GAUGE	AL		B
MSD PUMP DISCH PRESS	PANEL No. 2	AL	T	1" x 2"
LUBO XFR PMP DISCH PRESS	PANEL No. 5	AL	T	1" x 2"
FO XFR PMP #1 DISCH PRESS	PANEL No. 8	AL	T	1" x 2"
FO XFR PMP #2 DISCH PRESS	PANEL No. 8	AL	T	1" x 2"
SW TO STERN TUBE SEAL PRESS, PORT	PANEL No. 18	AL	T	1" x 2"
SW TO STERN TUBE SEAL PRESS, STBD	PANEL No. 18	AL	T	1" x 2"
SW PRESS TO EDUCTOR	PANEL No. 19	AL	T	1" x 2"
SW PRESS TO EDUCTOR	PANEL No. 20	AL	T	1" x 2"
SW PRESS TO EDUCTOR	PANEL No. 21	AL	T	1" x 2"
SW PRESS TO EDUCTOR	PANEL No. 22	AL	T	1" x 2"
LUBO XFR STR DIFF PRESS	PANEL No.5	AL	T	1" x 2"

Table 22. Piping Instrumentation Label Plates (continued)

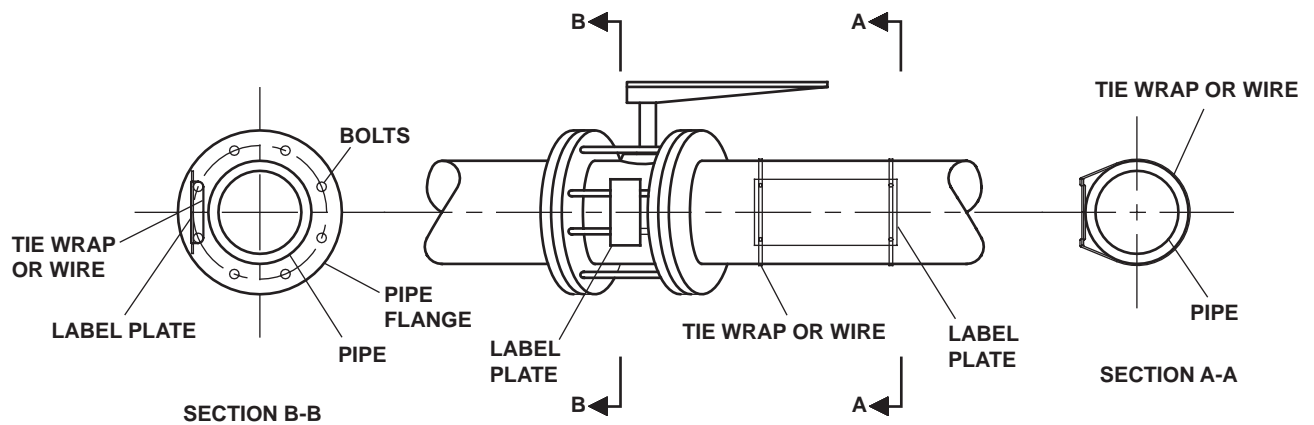
(1) INSCRIPTION	(2) SECURE TO	(3) MATL (table 23)	(4) ATT (table 24)	(5) TYPE (table 25)
BOW THRUSTER SW OUTLET TEMP	TAG TO STEM OF GAUGE	AL		B
PUMP DRIVE SW OUTLET TEMP	TAG TO STEM OF GAUGE	AL		B
RDCN GR #1 LUBO PRESS	PANEL No. 24	AL	T	1" x 2"
RDCN GR #2 LUBO PRESS	PANEL No. 23	AL	T	1" x 2"
DISHWASHER PW INLET PRESS	TAG TO STEM OF GAUGE	AL		B
RDCN GR #1 LUBO COOLER PRESS	TAG TO STEM OF GAUGE	AL		B
RDCN GR #2 LUBO COOLER PRESS	TAG TO STEM OF GAUGE	AL		B
RDCN GR #1 LUBO COOLER TEMP	TAG TO STEM OF GAUGE	AL		B
RDCN GR #2 LUBO COOLER TEMP	TAG TO STEM OF GAUGE	AL		B
SEACHEST BLWDN	TIE WRAP TO PIPE	AL		B

Table 23. Material Type

Abbreviation	Material Type
AL	Aluminum, 22 Gauge, Anodized Hydrated Finish
BR	Brass, 1/8" Thick
PH	Phenolic (Known as Traffolyte)
BK/WH	Black on White
WH/BK	White on Black
WH/RD	White on Red
RD/WH	Red on White

Table 24. Methods of Attachment

Abbreviation	See Figure Number Below For Method of Attachment
A	24
B	25
C	26
S	27
T	No figure. Label plate is attached using double back adhesive tape.



NOTE:  
 USE TWO TIE WRAP ON BOTH ENDS OF LABEL PLATE.  
 FOR APPLICATIONS WHERE TEMPERATURE EXCEEDS 180° F  
 USE WIRE.

Figure 24. Attachment Method "A"

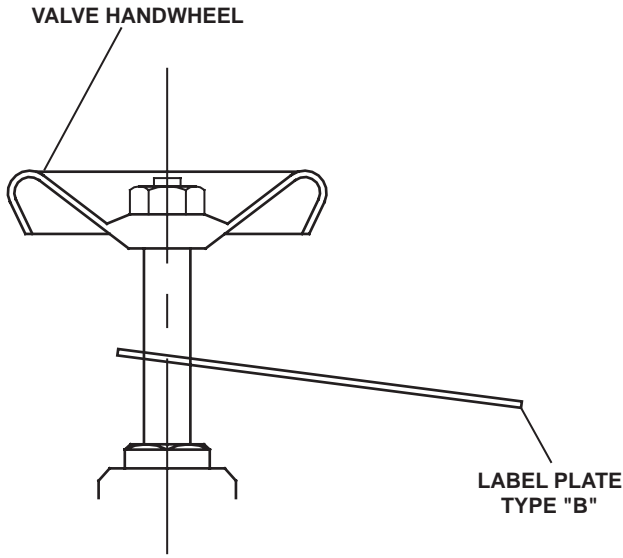


Figure 25. Attachment Method "B"

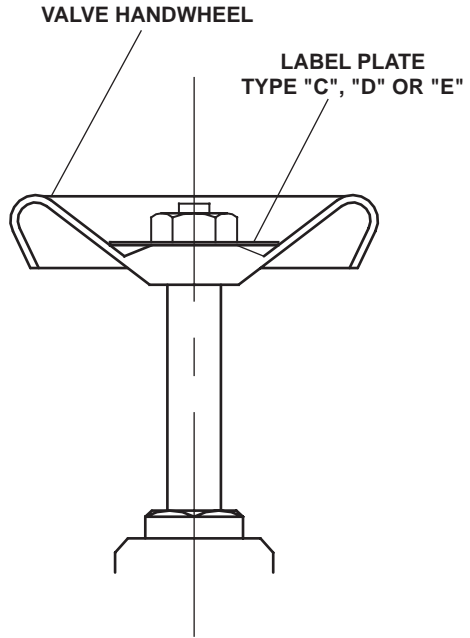


Figure 26. Attachment Method "D"

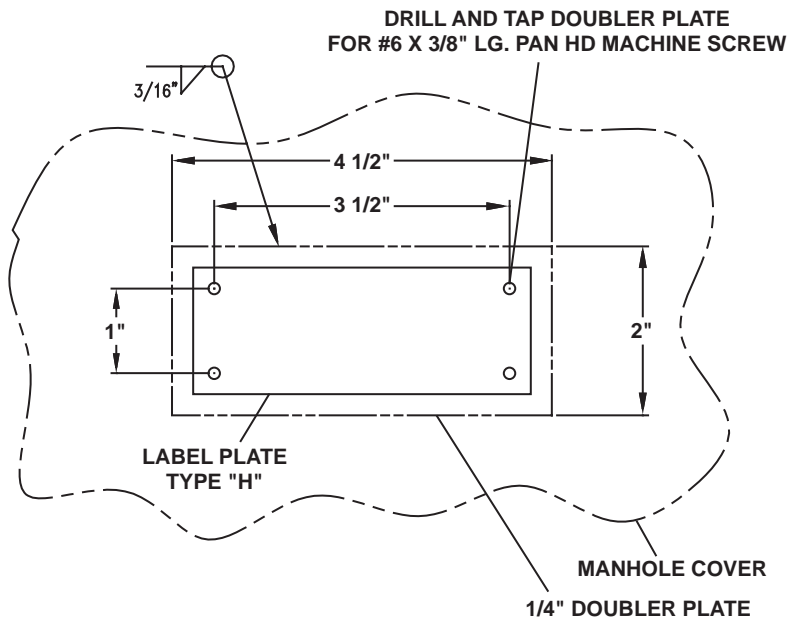


Figure 27. Attachment Method "S"



Table 25. Plate Types

Abbreviation	See Figure Number Below for Plate Type
A	28
B	29
C	30
D	31
E	32
F	33
G	34
H	35
J	36
K	37
L	38
M	39
N	40
O	41
P	42
Q	43
R	44
S	45
T	46
U	47
V	48
W	49
X	50
Y (R)	51
Y (L)	52
Z	53
ZA	54

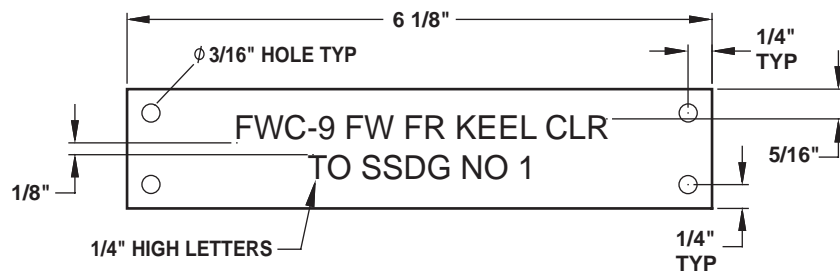


Figure 28. Type "A" Label Plate

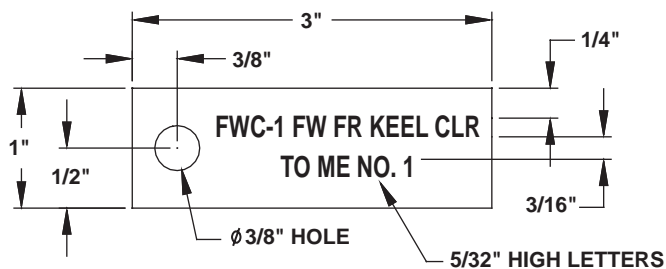


Figure 29. Type "B" Label Plate

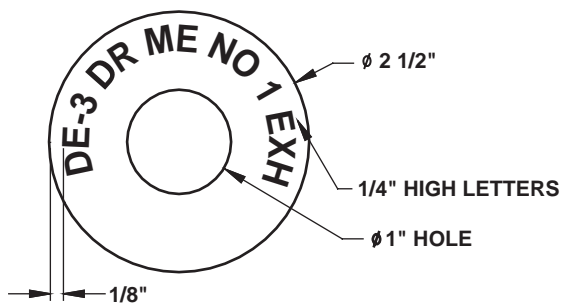


Figure 30. Type "C" Label Plate

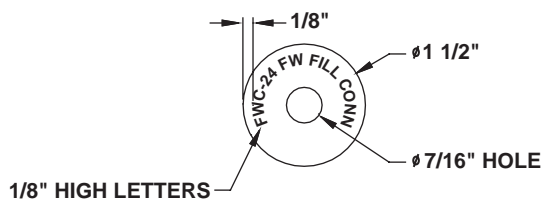


Figure 31. Type "D" Label Plate

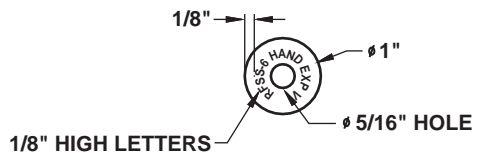


Figure 32. Type "E" Label Plate

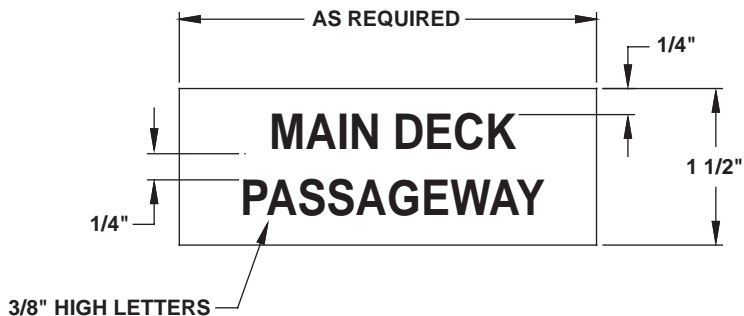


Figure 33. Type "F" Label Plate

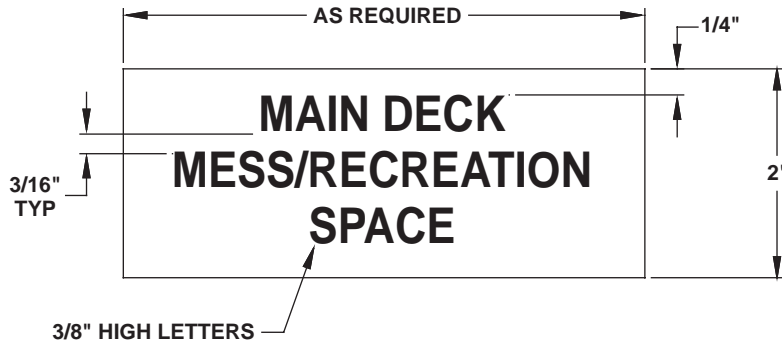


Figure 34. Type "G" Label Plate

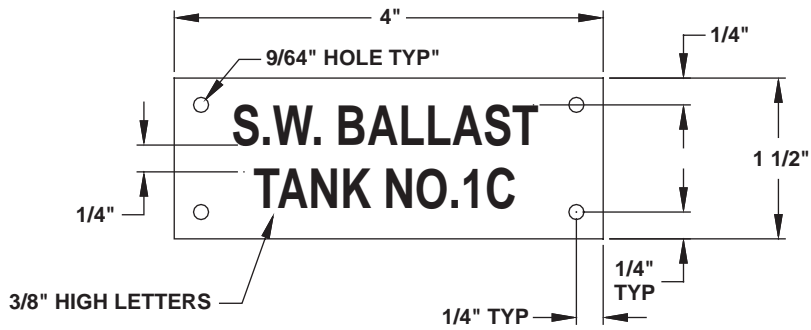


Figure 35. Type "H" Label Plate

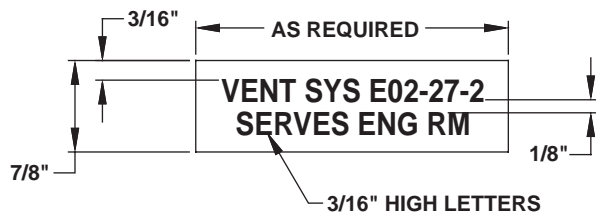


Figure 36. Type "J" Label Plate

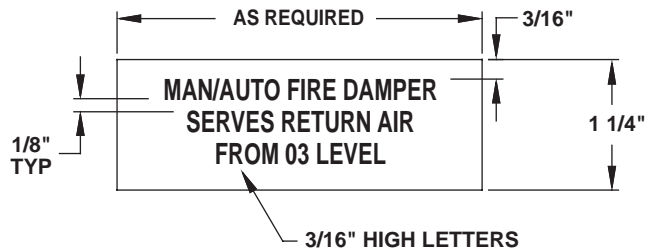


Figure 37. Type "K" Label Plate

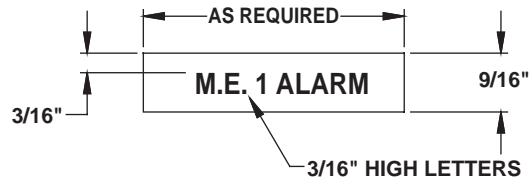


Figure 38. Type "L" Label Plate

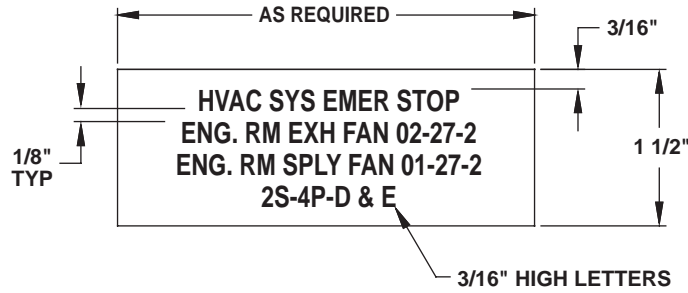


Figure 39. Type "M" Label Plate

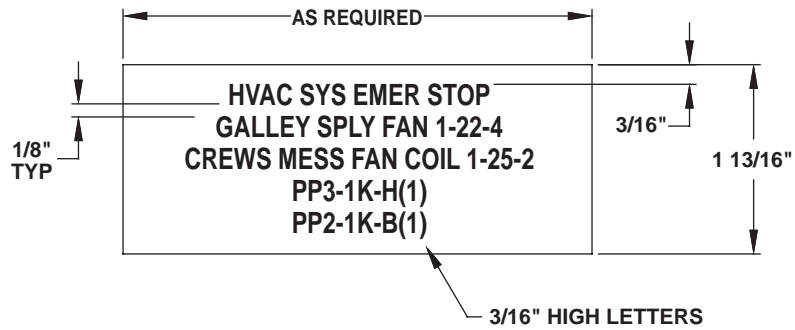


Figure 40. Type "N" Label Plate

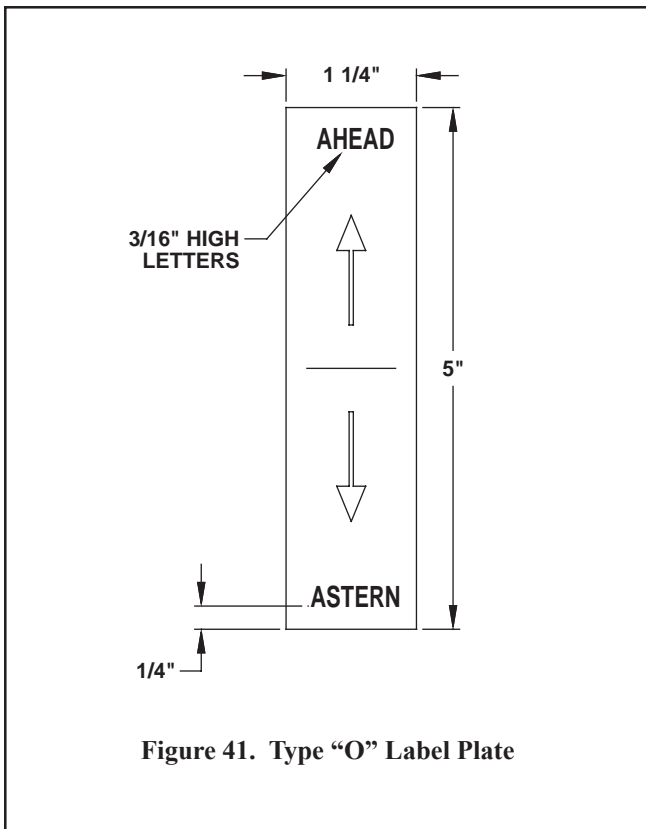


Figure 41. Type "O" Label Plate

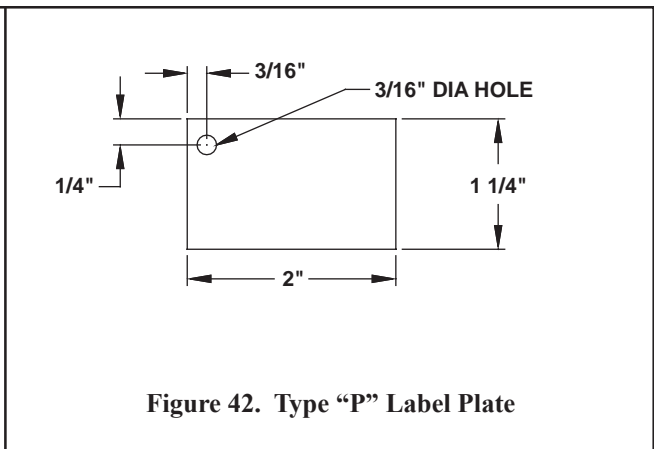


Figure 42. Type "P" Label Plate

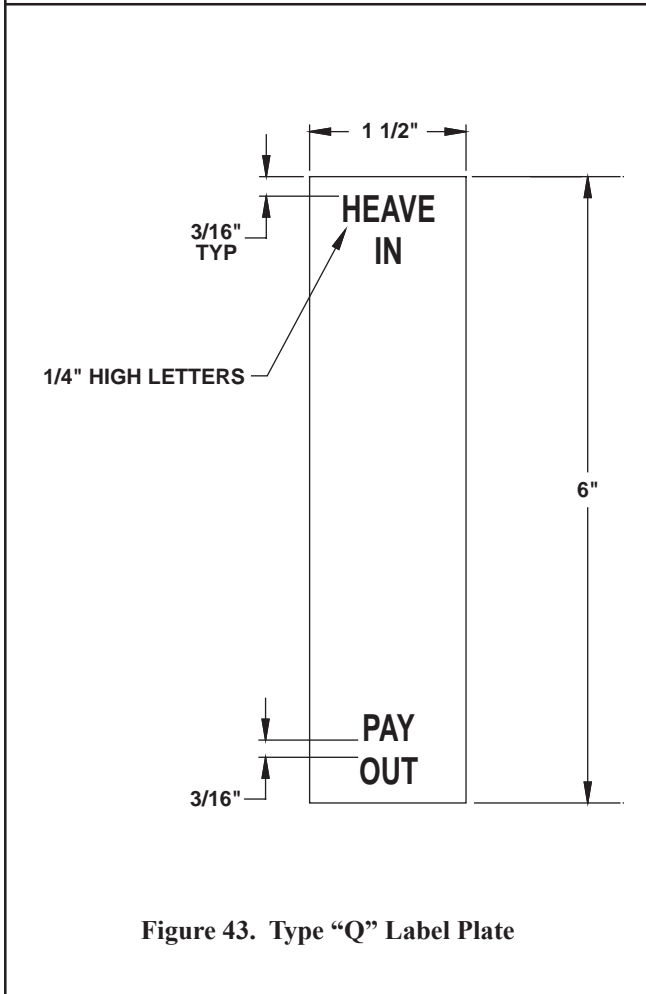


Figure 43. Type "Q" Label Plate

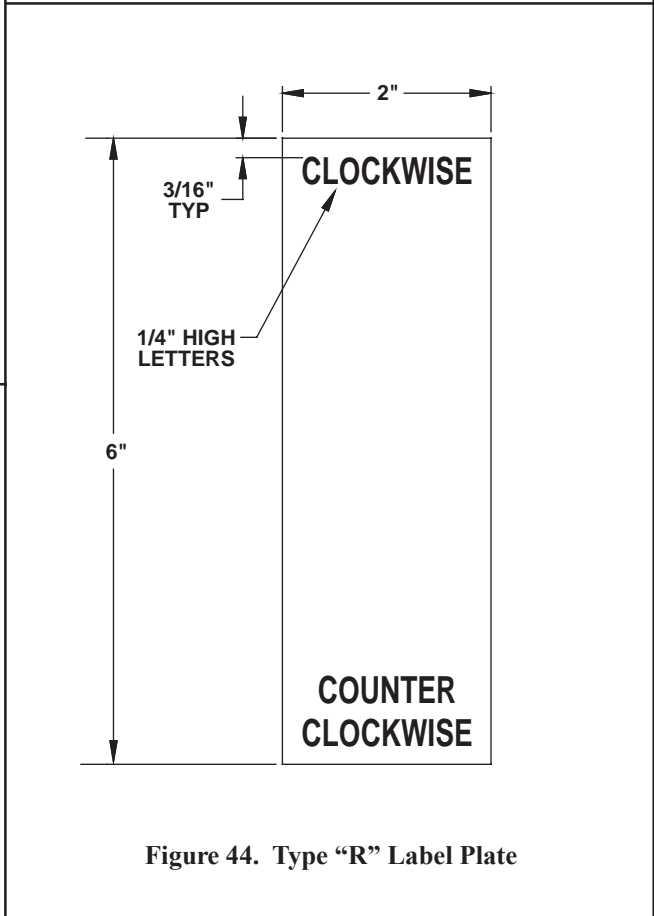


Figure 44. Type "R" Label Plate

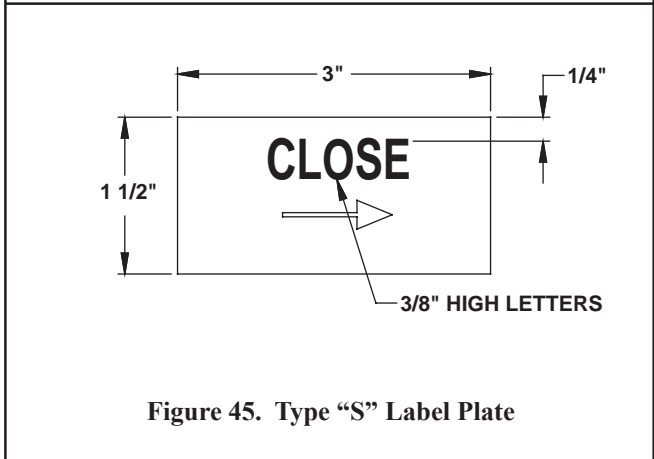
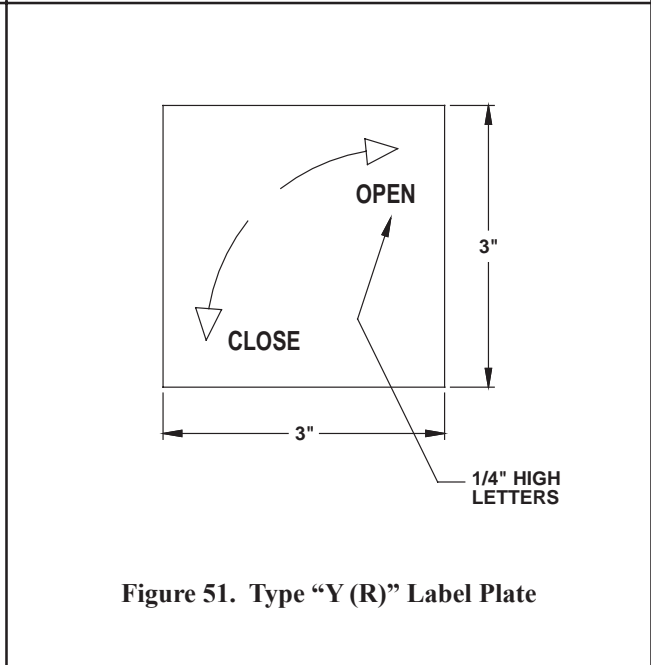
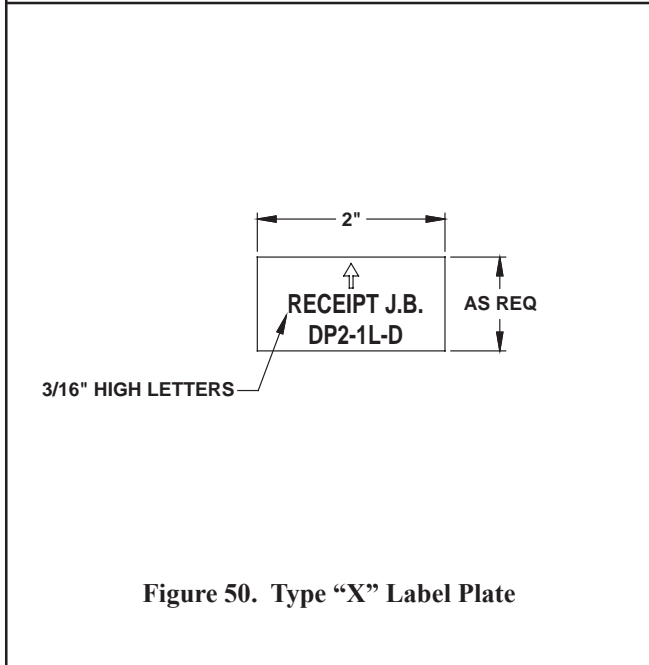
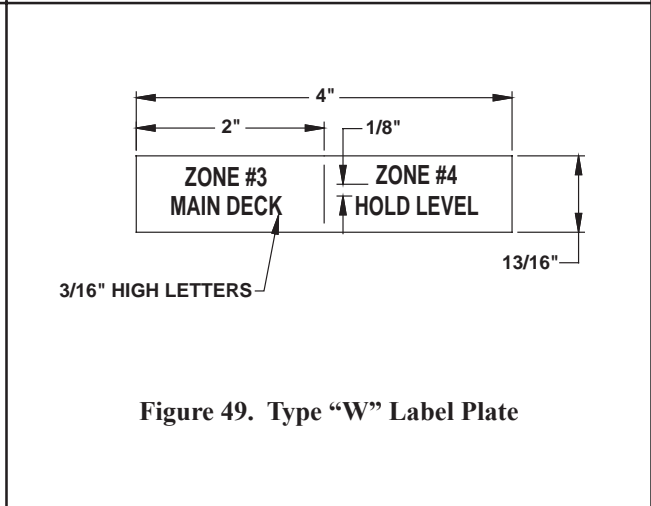
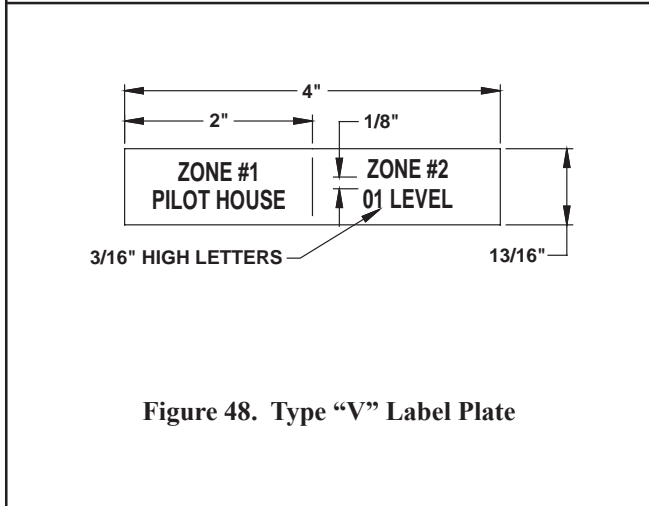
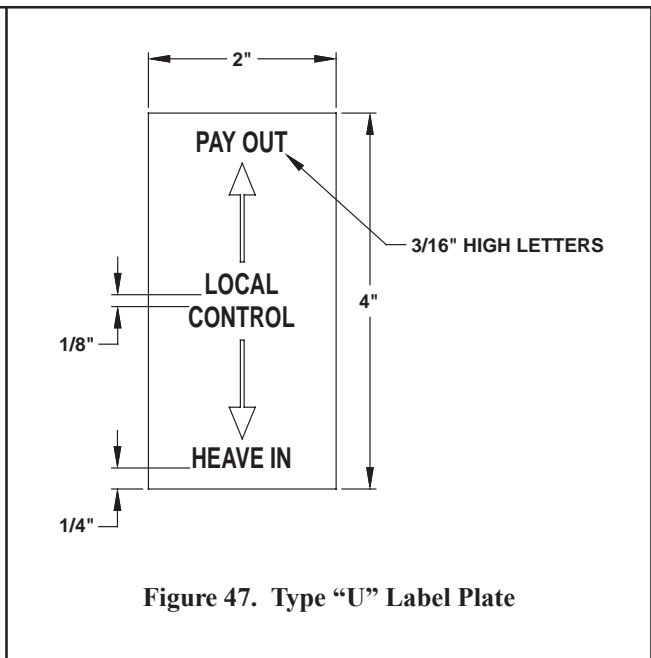
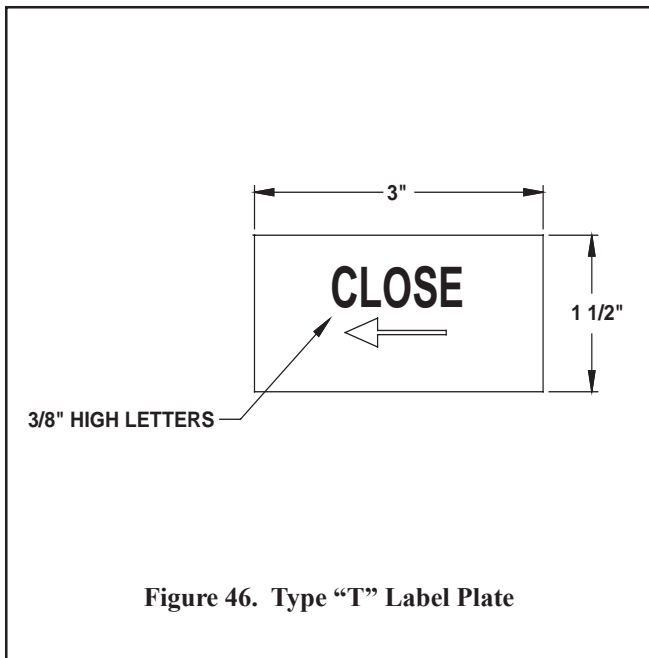
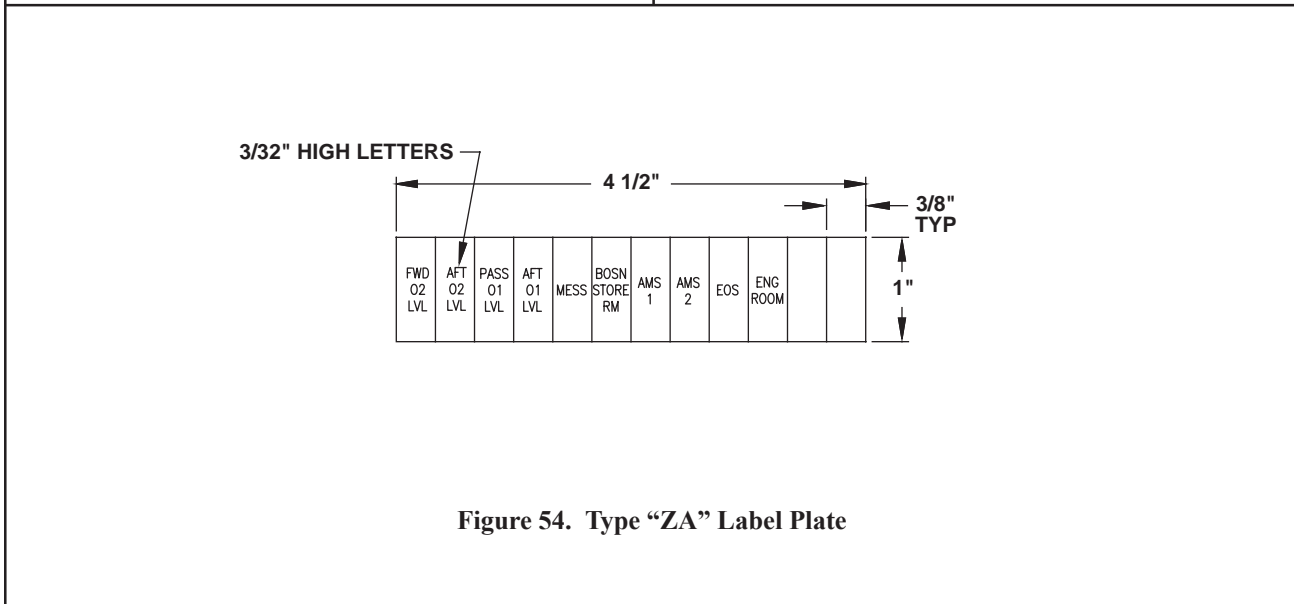
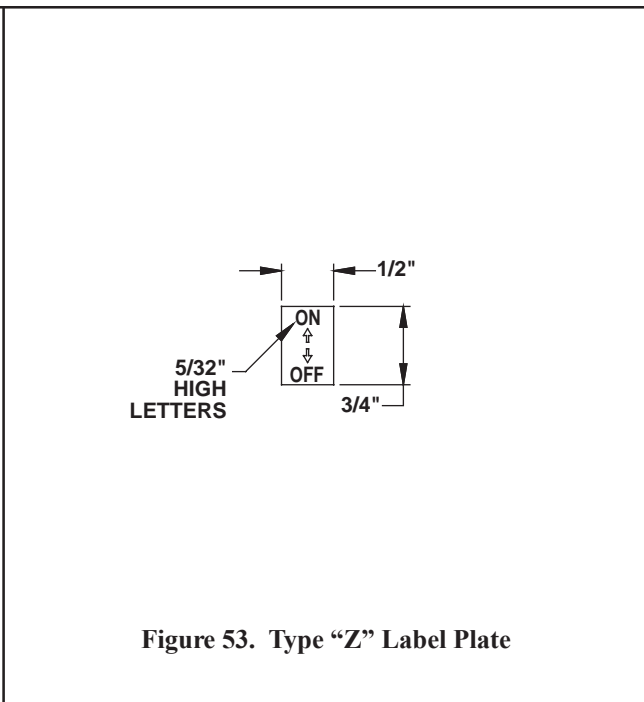
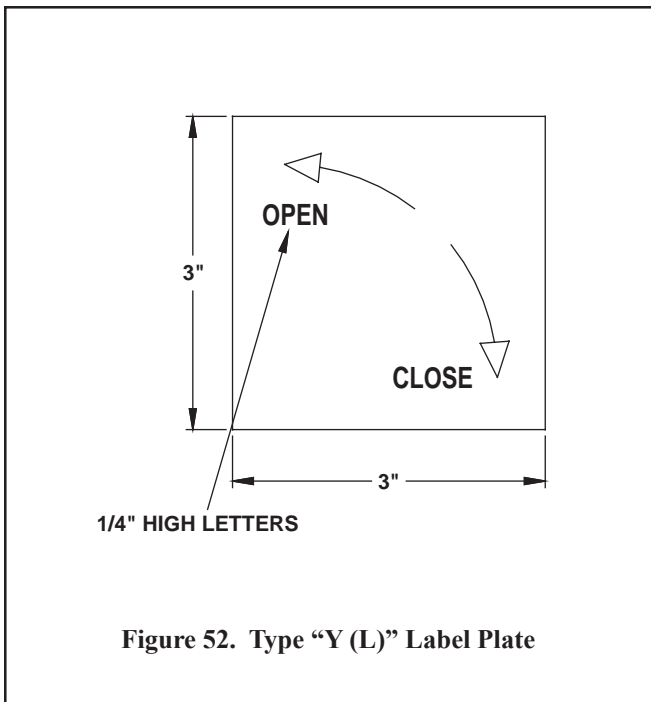


Figure 45. Type "S" Label Plate





END OF WORK PACKAGE





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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
ONBOARD EQUIPMENT LOADING PLAN**

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Locations for all Component Of End Item (COEI), Basic Issue Items (BII), and Additional Authorization List items (AAL) are included in their respective work packages, as follows:

COEI: WP 0163 00  
BII: WP 0163 00  
AAL: WP 0164 00

Any additional equipment stowage will be identified by the vessel master or the appropriate designee.

**END OF WORK PACKAGE**



**Chapter 5**

**Troubleshooting Procedures**  
**for**  
**Inland and Coastal Large Tug (LT)**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
TROUBLESHOOTING INDEX**

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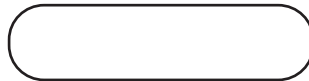
### USE OF THE INDEX

Troubleshooting begins by identifying the equipment and the malfunction. Table 1 contains the operator troubleshooting procedures. The equipment list is contained in the left column of the tables, and the malfunctions are listed in the center column of the tables. Once the correct equipment and malfunction are located, look immediately to the right for the work package and procedure that correspond to the malfunction. After locating the appropriate work package and procedure, turn to that procedure, and follow the instructions in the paragraph below to implement the procedure.

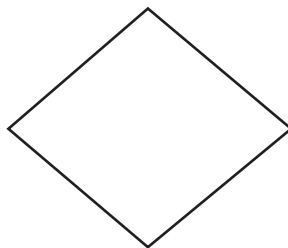
### USE OF TROUBLESHOOTING PROCEDURES

Functional flow logic tree troubleshooting procedures are used for all troubleshooting procedures in this manual. In this troubleshooting style, a pill shaped symbol (figure 1) is used to depict the beginning or end point of a procedure. Decision points are depicted by diamond shaped symbols (figure 2). Action points, as well as warnings, cautions, and notes are contained in rectangular symbols (figure 3). Procedures that are too large for one page are joined together by the circular shaped connector symbols (figure 4). The connector symbol will denote which page and step to go to (or come from) on another page. Finally, when flowchart lines cross, the technician must ensure that the correct path is followed. Crossing lines (figure 5) indicate that the points connect. Lines that cross with a jump symbol in the center (figure 6) indicate that the points do not connect. The technician must correctly follow the arrows to complete the troubleshooting procedure.

Look for the pill shaped beginning symbol in the upper left corner of the procedure. This symbol should contain the identified malfunction or symptom. Starting from this point, follow the arrowed lines through the procedure. Remember that the diamond shaped symbols denote a decision step. At each of these points you will be required to make a decision and to follow the appropriate line for that decision. Continue to follow the arrowed lines through the procedure until the malfunction or symptom is corrected.



**Figure 1. Pill Shaped Symbol**



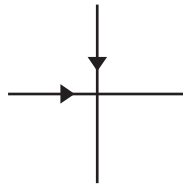
**Figure 2. Diamond Shaped Symbol**



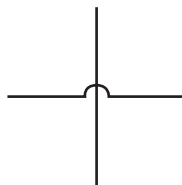
**Figure 3. Rectangle Shaped Symbol**



**Figure 4. Circular Shaped Symbol**



**Figure 5. Crossed Lines Are Connected**



**Figure 6. Crossed Lines Are Not Connected**

**Table 1. Operator Troubleshooting Procedures**

<b>Equipment</b>	<b>Malfunction</b>	<b>Work Package, Procedure</b>
Bilge and Ballast Systems	Ballast tank(s) do not fill	WP 0135 00, Procedure 1
	Bilges will not pump	WP 0135 00, Procedure 2
Bow Thruster System	Bow thruster does not operate	WP 0135 00, Procedure 3
Compressed Air System	Air compressors do not run	WP 0135 00, Procedure 4
	Receivers do not pressurize	WP 0135 00, Procedure 5

Table 1. Operator Troubleshooting Procedures (continued)

Equipment	Malfunction	Work Package, Procedure
Control Air System	Propulsion system does not respond to controls	WP 0135 00, Procedure 6
Electrical System	Electrical system does not energize the vessel	WP 0135 00, Procedure 7
Engine Order Telegraph (EOT) and Alarm Systems	EOT does not operate	WP 0135 00, Procedure 8
Fire Main, Washdown, Sprinkler System	Fire main will not pressurize	WP 0135 00, Procedure 9
	General service water system will not pressurize	WP 0135 00, Procedure 10
	Fire and general service pumps do not run	WP 0135 00, Procedure 11
	AFFF pump does not run	WP 0135 00, Procedure 12
Fuel System	Fuel will not transfer between tanks	WP 0135 00, Procedure 13
Heating, Ventilation, and Air Conditioning (HVAC) Systems	Heating and/or air conditioning does not heat/cool the space	WP 0135 00, Procedure 14
	Ventilation fan will not run	WP 0135 00, Procedure 15
Hydraulic Systems	Central HPU will not operate	WP 0135 00, Procedure 16
	Anchor windlass will not operate	WP 0135 00, Procedure 17
	Crane will not operate	WP 0135 00, Procedure 18
	Capstan will not operate	WP 0135 00, Procedure 19
	Towing machine will not operate	WP 0135 00, Procedure 20
Internal Communication Systems	PA system does not operate	WP 0135 00, Procedure 21
	Sound powered telephone will not operate	WP 0135 00, Procedure 22
	Intercom will not operate	WP 0135 00, Procedure 23
Lubricating and Hydraulic Oil Fill and Transfer System	Lube oil will not transfer	WP 0135 00, Procedure 24
Main Propulsion Engines	Main propulsion engine does not run	WP 0135 00, Procedure 25
	Main propulsion engine will not start	WP 0135 00, Procedure 26
Marine Sanitation Device	Marine sanitation device will not operate	WP 0135 00, Procedure 27

**Table 1. Operator Troubleshooting Procedures (continued)**

<b>Equipment</b>	<b>Malfunction</b>	<b>Work Package, Procedure</b>
Potable Water System	Potable water system will not pressurize	WP 0135 00, Procedure 28
Power Generation System	Vessel receives no electrical power	WP 0135 00, Procedure 29
Refrigeration System	Refrigeration system will not cool refers	WP 0135 00, Procedure 30
Steering System	Steering system will not turn rudders	WP 0135 00, Procedure 31

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
OPERATIONAL CHECKOUT**

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To complete the operational checkout:

1. Perform all before PMCS items.
2. Perform all system startup procedures as detailed in the following work packages:

<b>Work Package (Volume 1)</b>	<b>Title</b>
WP 0068 00	Operation Under Usual Conditions: Preparation for Use
WP 0069 00	Operation Under Usual Conditions: Power Generation
WP 0070 00	Operation Under Usual Conditions: Compressed Air System
WP 0071 00	Operation Under Usual Conditions: Fire Main, General Service, Aqueous Film Forming Foam (AFFF), and Washdown Countermeasure System
WP 0072 00	Operation Under Usual Conditions: Main Propulsion System
WP 0073 00	Operation Under Usual Conditions: Lube Oil Purification and Transfer Piping System
WP 0074 00	Operation Under Usual Conditions: Fuel Oil Fill, Transfer, and Supply System
WP 0075 00	Operation Under Usual Conditions: Bow Thruster
WP 0076 00	Operation Under Usual Conditions: Hydraulic System
WP 0077 00	Operation Under Usual Conditions: Steering System
WP 0078 00	Operation Under Usual Conditions: Tank Level Indicator System
WP 0079 00	Operation Under Usual Conditions: Bilge/Ballast Systems
WP 0080 00	Operation Under Usual Conditions: Potable Water System
WP 0081 00	Operation Under Usual Conditions: Marine Sanitation Device
WP 0082 00	Operation Under Usual Conditions: Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) Systems
WP 0083 00	Operation Under Usual Conditions: Interncommunication and Sound Powered Telephone Systems
WP 0084 00	Operation Under Usual Conditions: Engine Order Telegraph and General Alarm Systems

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
TROUBLESHOOTING PROCEDURES**

---

**INITIAL SETUP:**

**Personnel Required:**

- One Watercraft Operator, 88K
- One Watercraft Engineer, 88L

**References:**

- WP 0069 00 (volume 1)
- WP 0070 00 (volume 1)
- WP 0071 00 (volume 1)
- WP 0072 00 (volume 1)
- WP 0073 00 (volume 1)
- WP 0074 00 (volume 1)
- WP 0075 00 (volume 1)
- WP0076 00 (volume 1)

**References (continued):**

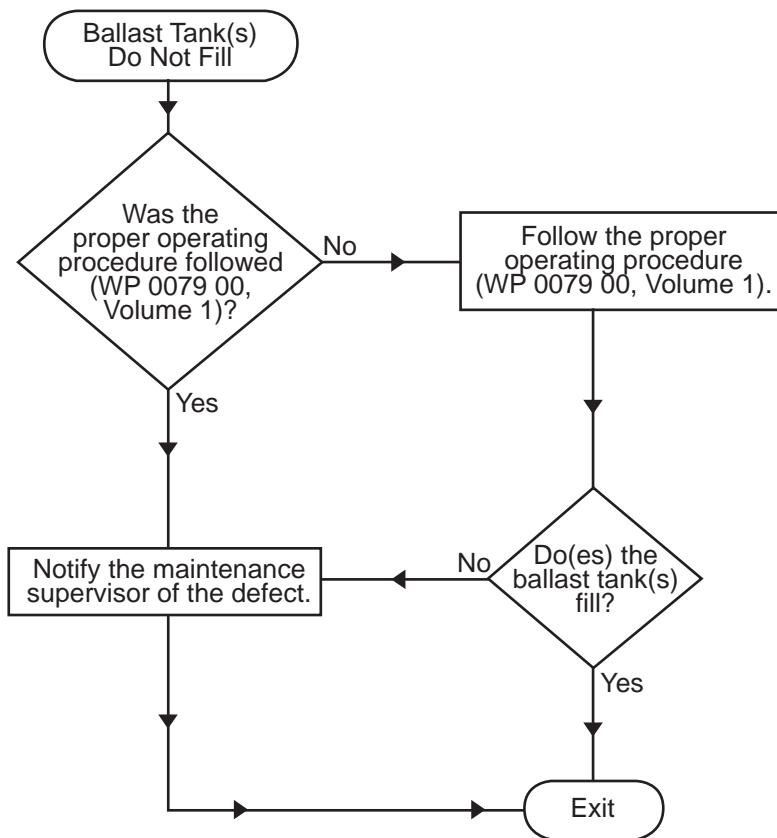
- WP 0077 00 (volume 1)
- WP 0079 00 (volume 1)
- WP 0080 00 (volume 1)
- WP 0081 00 (volume 1)
- WP 0082 00 (volume 1)
- WP 0083 00 (volume 1)
- WP 0084 00 (volume 1)
- WP 0086 00 (volume 1)
- WP 0087 00 (volume 1)
- WP 0088 00 (volume 1)
- WP 0089 00 (volume 1)

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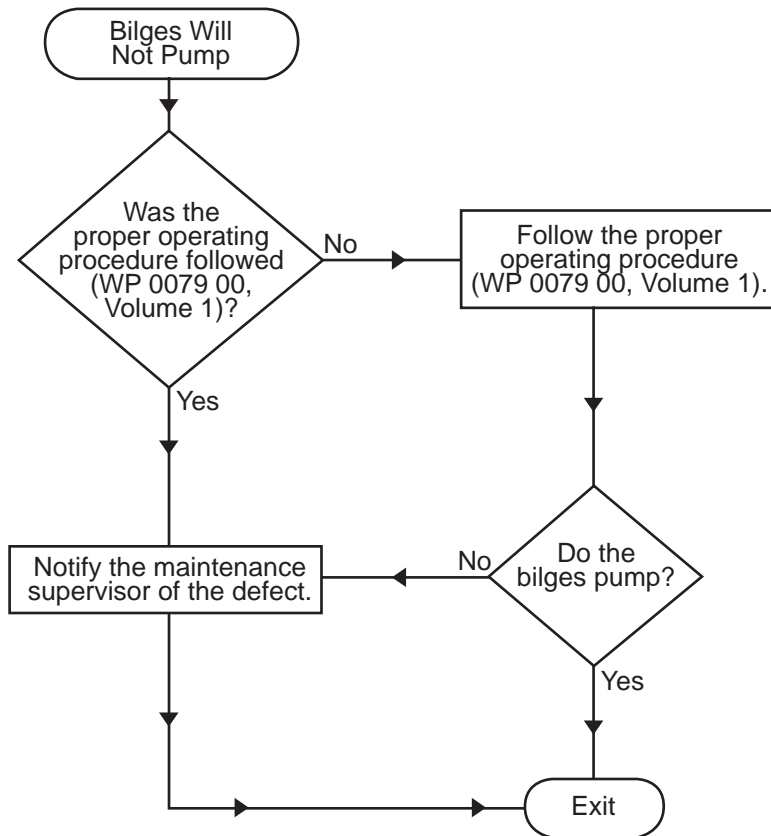
**INTRODUCTION**

The following operator troubleshooting procedures are included in this work package:

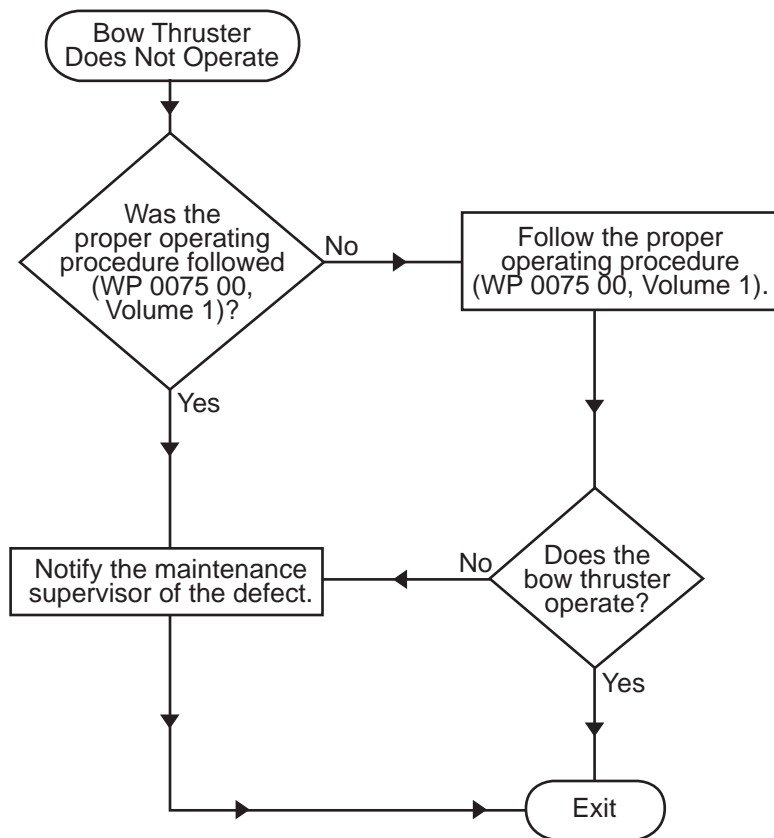
<u>Malfunction/Symptom</u>	<u>Procedure</u>
Ballast Tank(s) Do Not Fill .....	1
Bilges Will Not Pump .....	2
Bow Thruster Does Not Operate .....	3
Air Compressors Do Not Run .....	4
Receivers Do Not Pressurize .....	5
Propulsion System Does Not Respond to Controls .....	6
Electrical System Does Not Energize the Vessel .....	7
EOT Does Not Operate .....	8
Fire Main Will Not Pressurize .....	9
General Service Water System Will Not Pressurize .....	10
Fire and General Service Pumps Do Not Run .....	11
AFFF Pump Does Not Run .....	12
Fuel Will Not Transfer Between Tanks .....	13
Heating and/or Air Conditioning Does Not Heat/Cool the Space .....	14
Ventilation Fan Will Not Run .....	15
Central HPU Will Not Operate .....	16
Anchor Windlass Will Not Operate .....	17
Crane Will Not Operate .....	18
Capstan Will Not Operate .....	19
Towing Machine Will Not Operate .....	20
PA System Does Not Operate .....	21
Sound Powered Telephone Will Not Operate .....	22
Intercom Will Not Operate .....	23
Lube Oil Will Not Transfer .....	24
Main Propulsion Engine Does Not Run .....	25
Main Propulsion Engine Will Not Start .....	26
Marine Sanitation Device Will Not Operate .....	27
Potable Water System Will Not Pressurize .....	28
Vessel Receives No Electrical Power .....	29
Refrigeration System Will Not Cool Refers .....	30
Steering System Will Not Turn Rudders .....	31



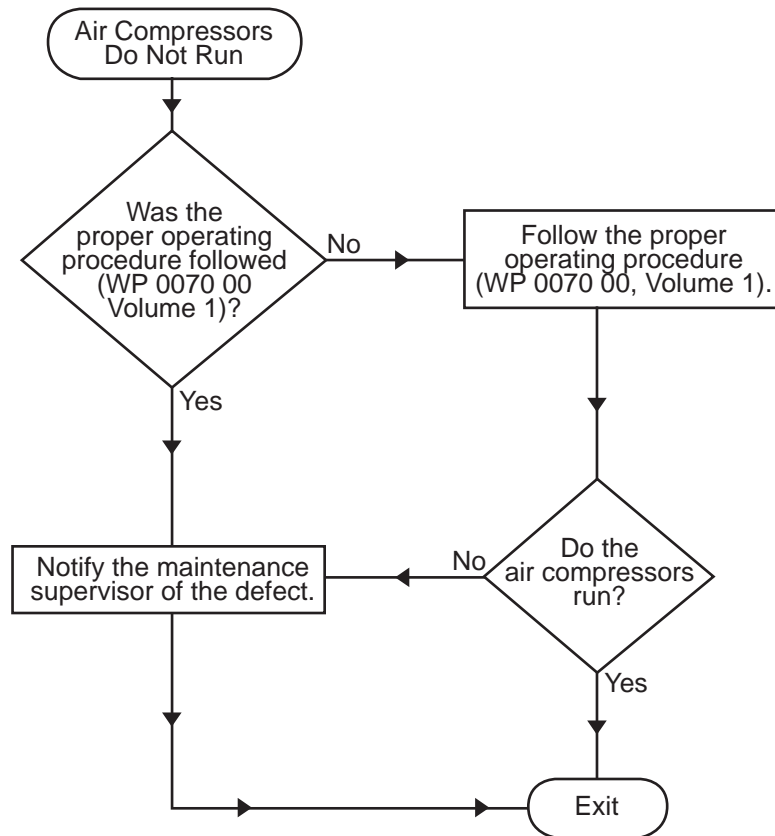
Procedure 1. Ballast Tank(s) Do Not Fill



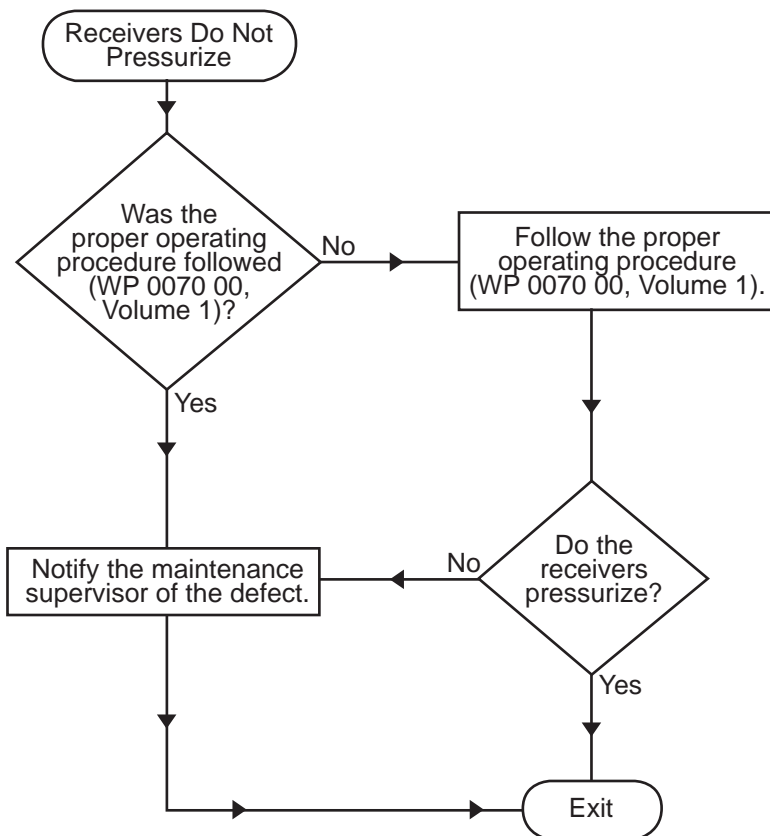
**Procedure 2. Bilges Will Not Pump**



Procedure 3. Bow Thruster Does Not Operate

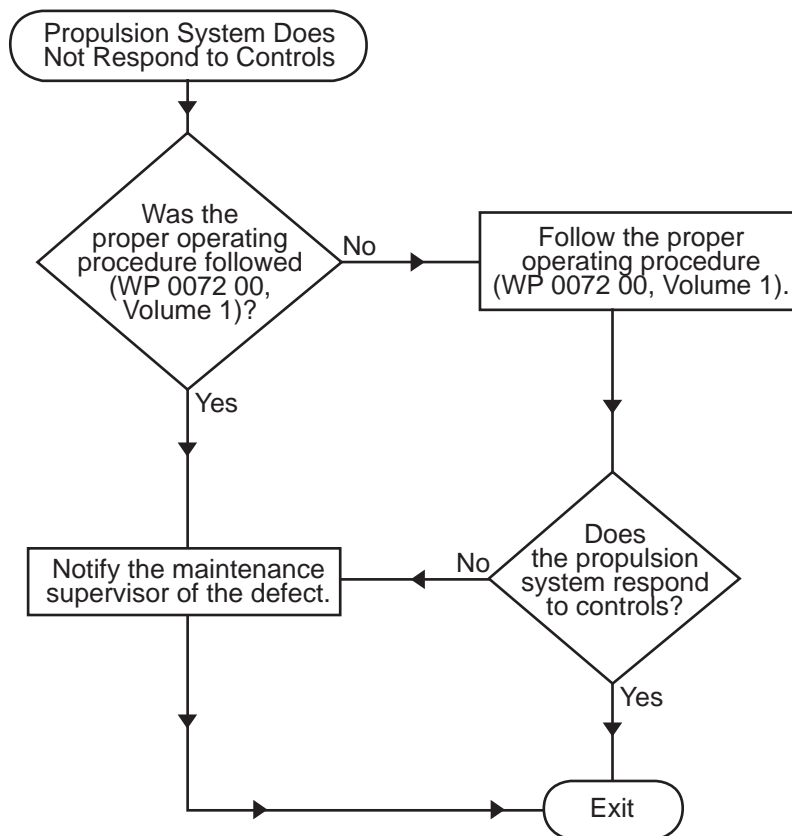


**Procedure 4. Air Compressors Do Not Run**

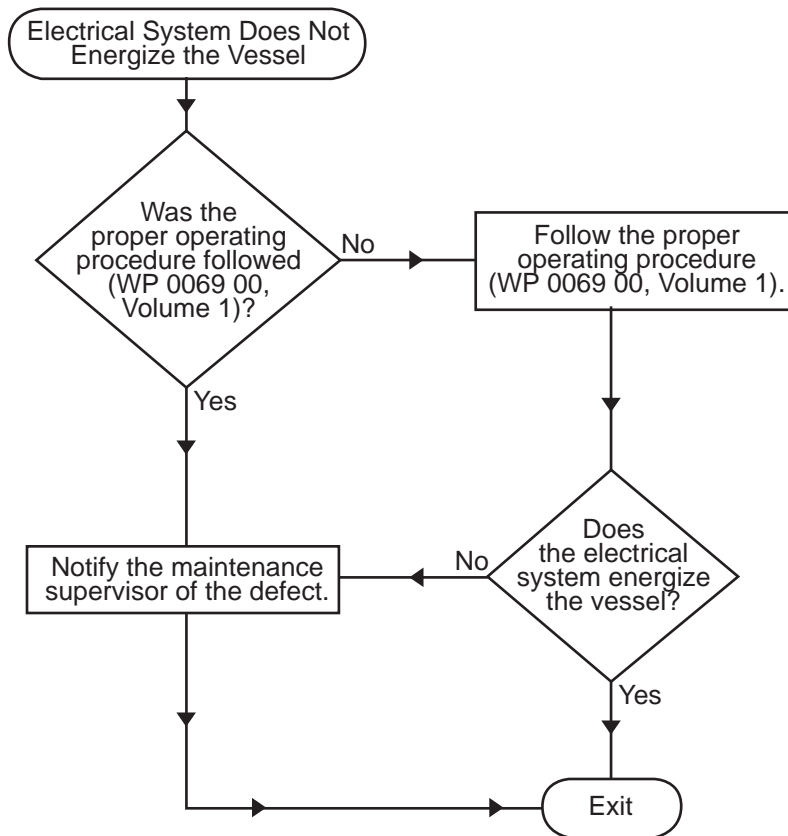


Procedure 5. Receivers Do Not Pressurize

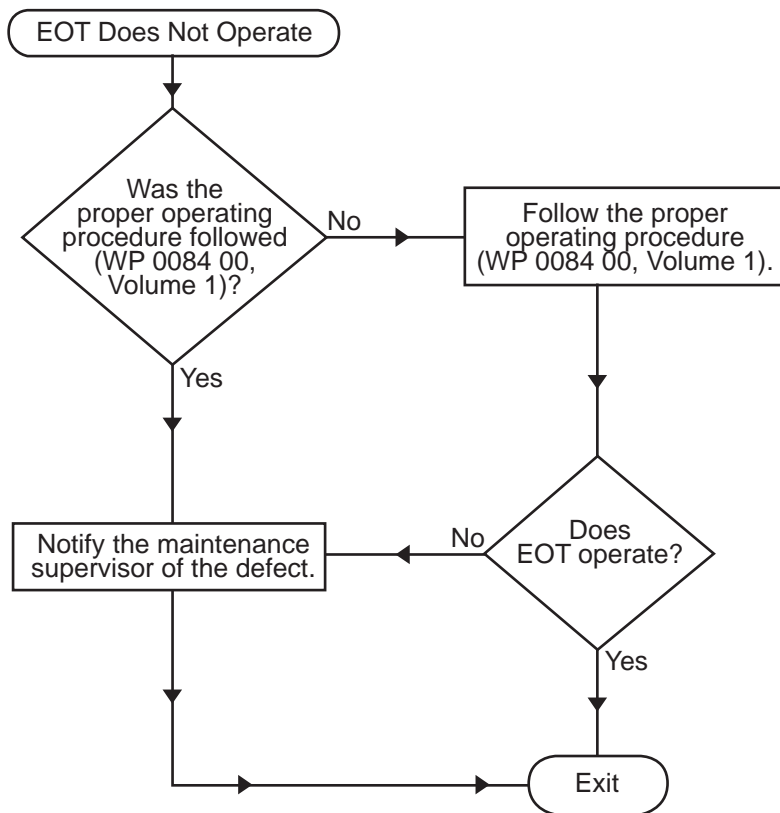




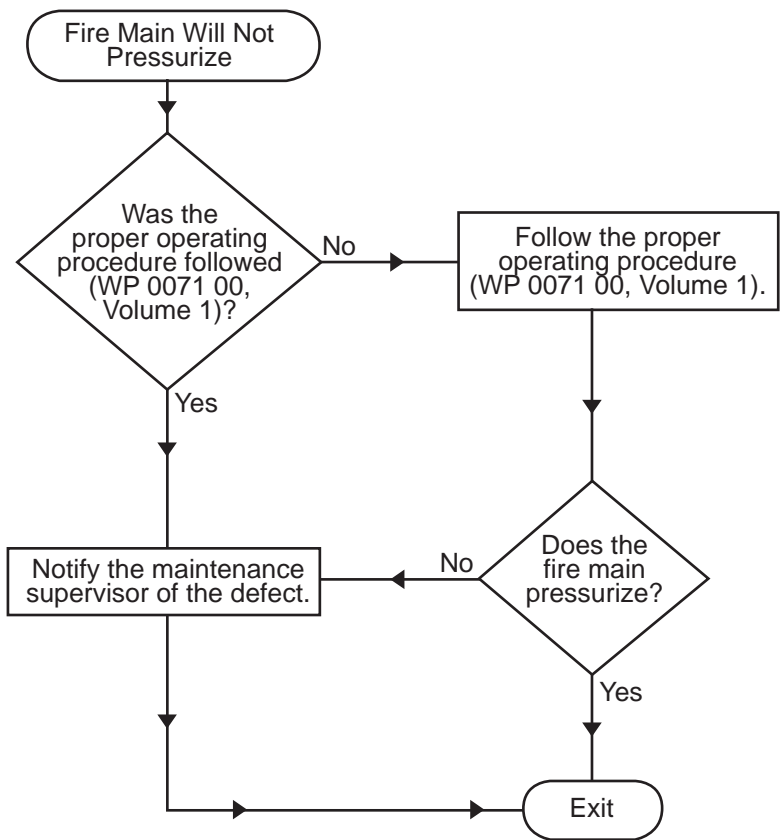
**Procedure 6. Propulsion System Does Not Respond To Controls**



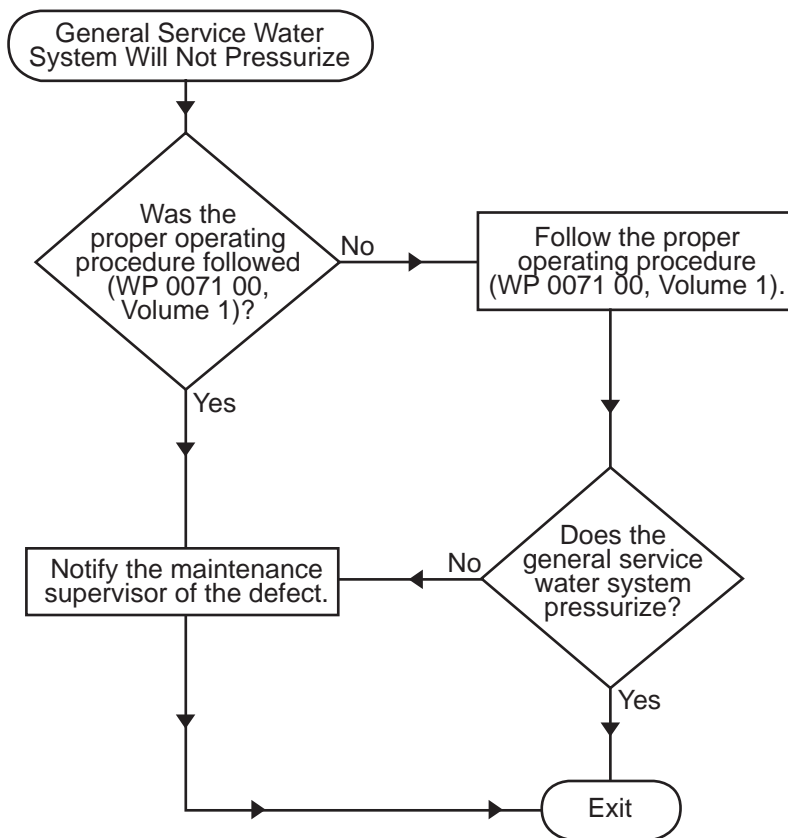
Procedure 7. Electrical System Does Not Energize the Vessel



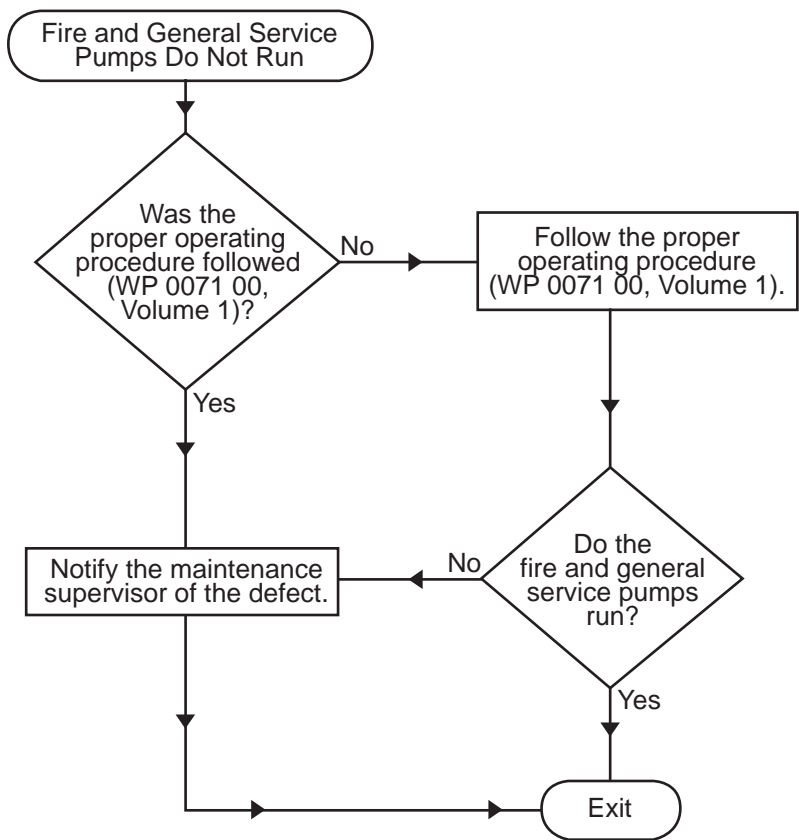
Procedure 8. EOT Does Not Operate



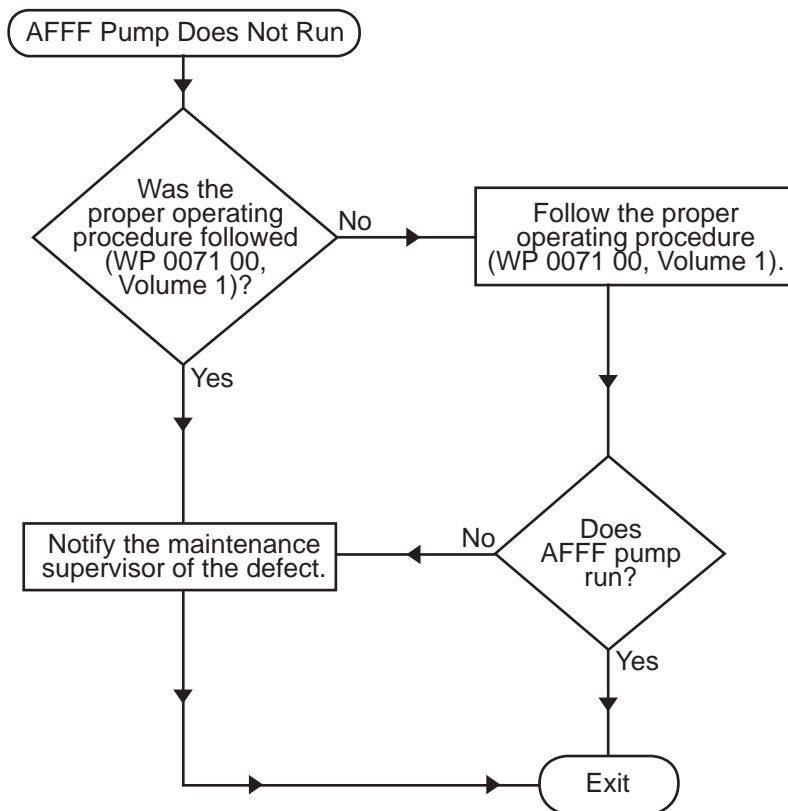
**Procedure 9. Fire Main Will Not Pressurize**



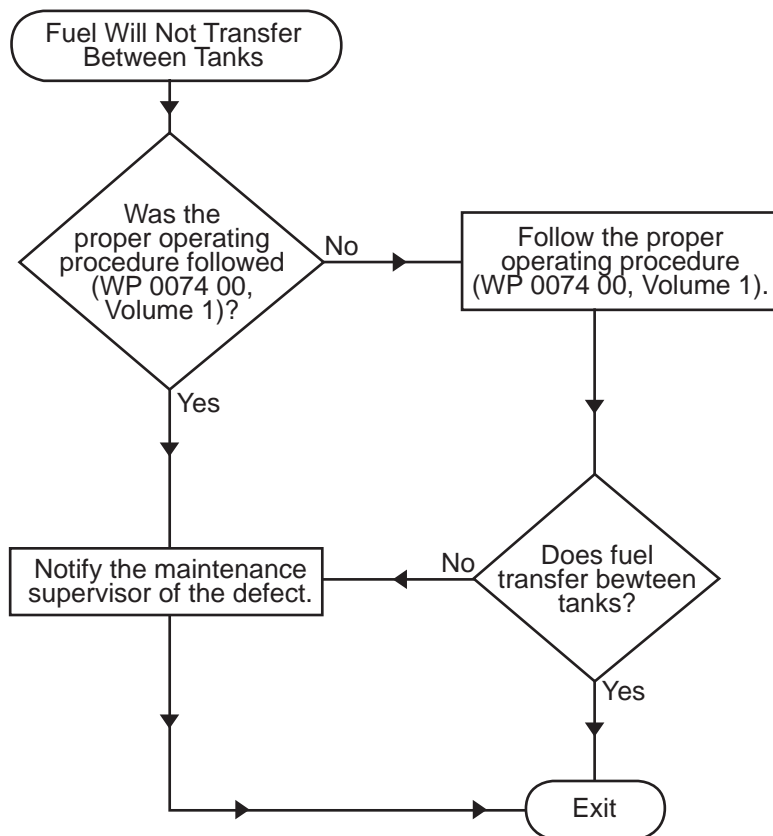
Procedure 10. General Service Water System Will Not Pressurize



Procedure 11. Fire and General Service Pumps Do Not Run

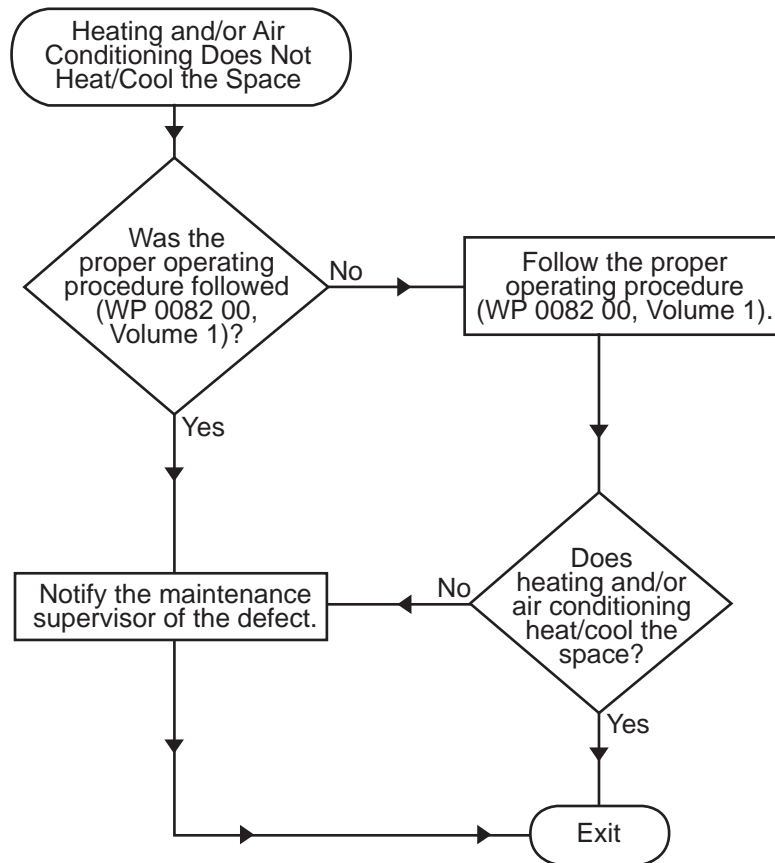


**Procedure 12. AFFF Pump Does Not Run**

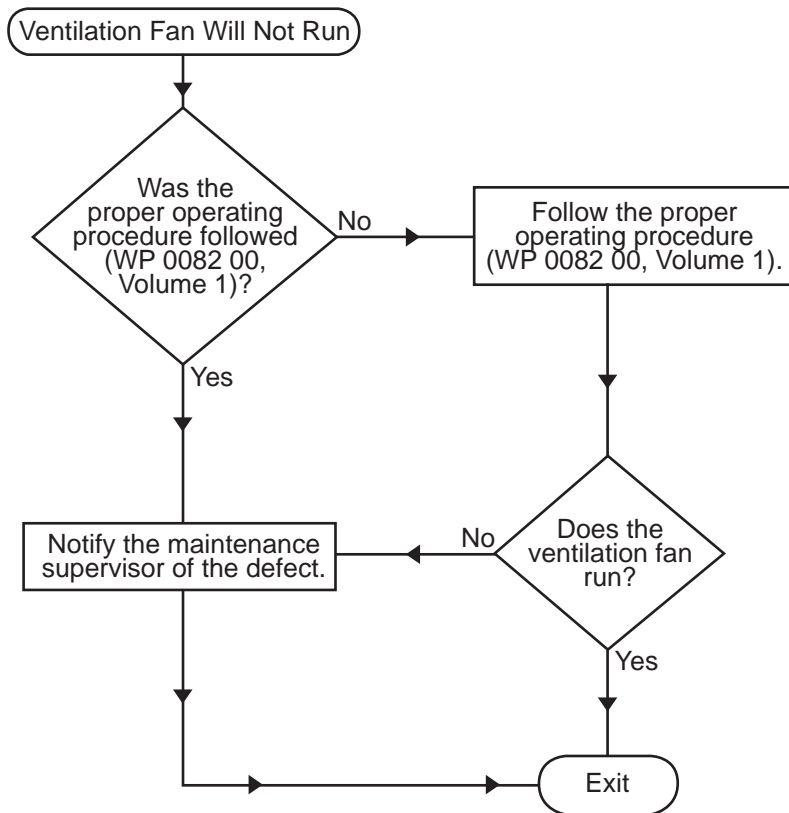


**Procedure 13. Fuel Will Not Transfer Between Tanks**

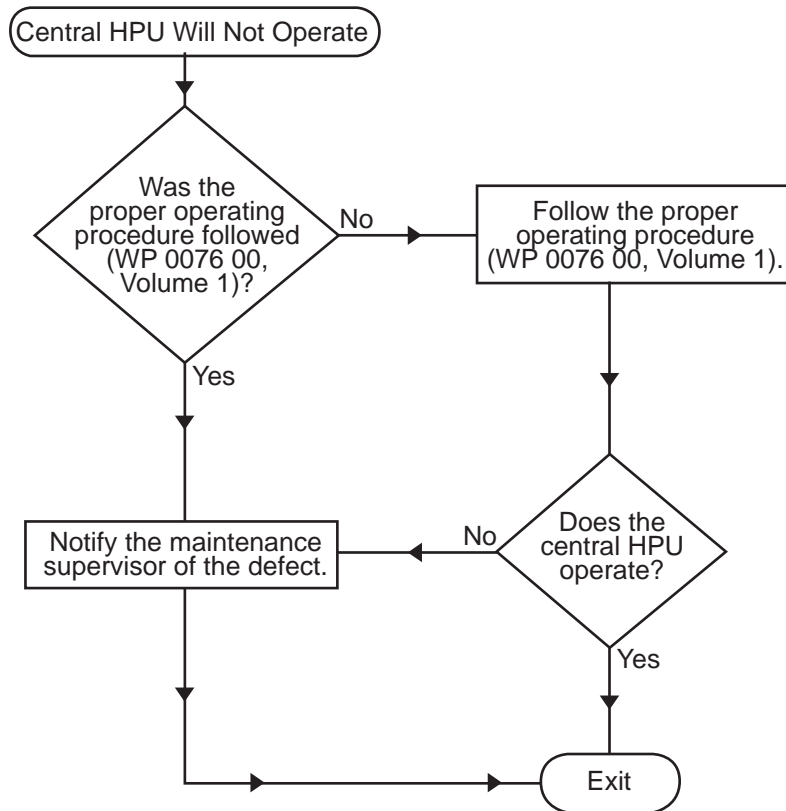




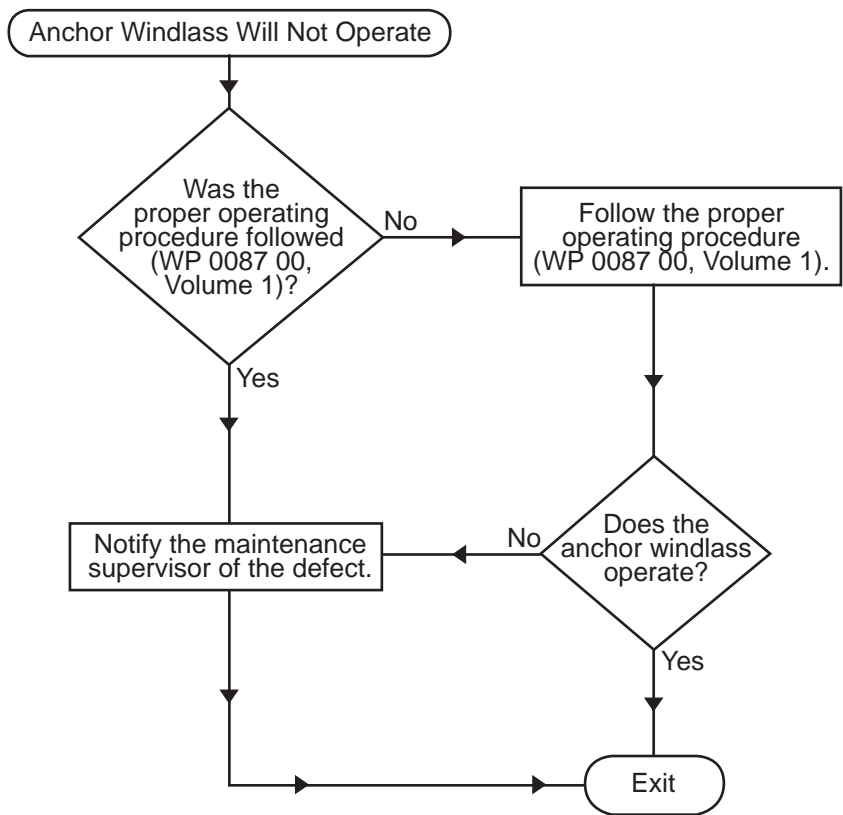
**Procedure 14. Heating and/or Air Conditioning Does Not Heat/Cool the Space**



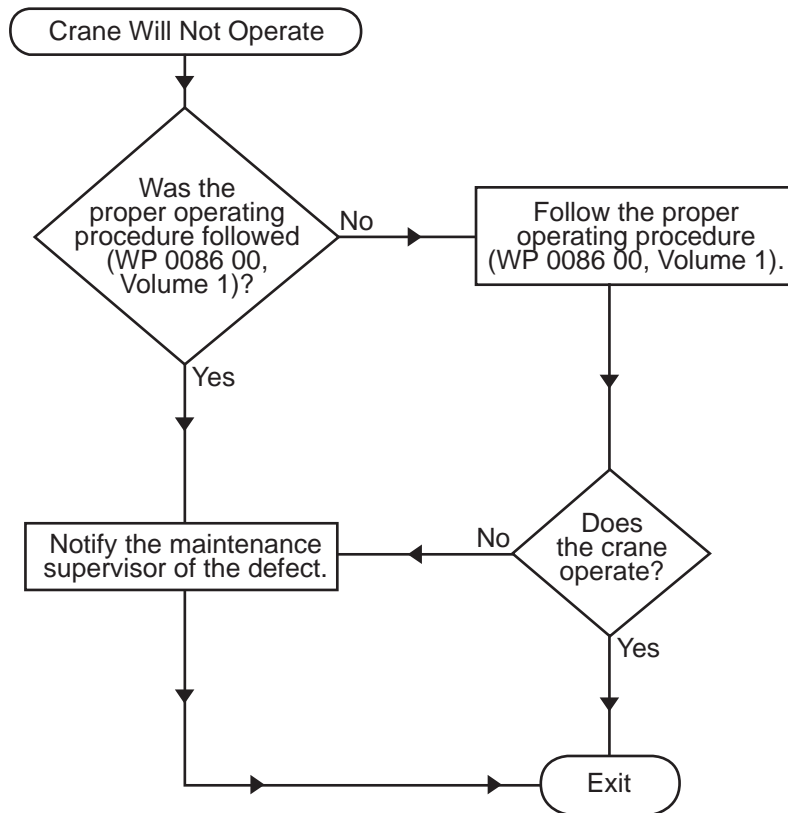
**Procedure 15. Ventilation Fan Will Not Run**



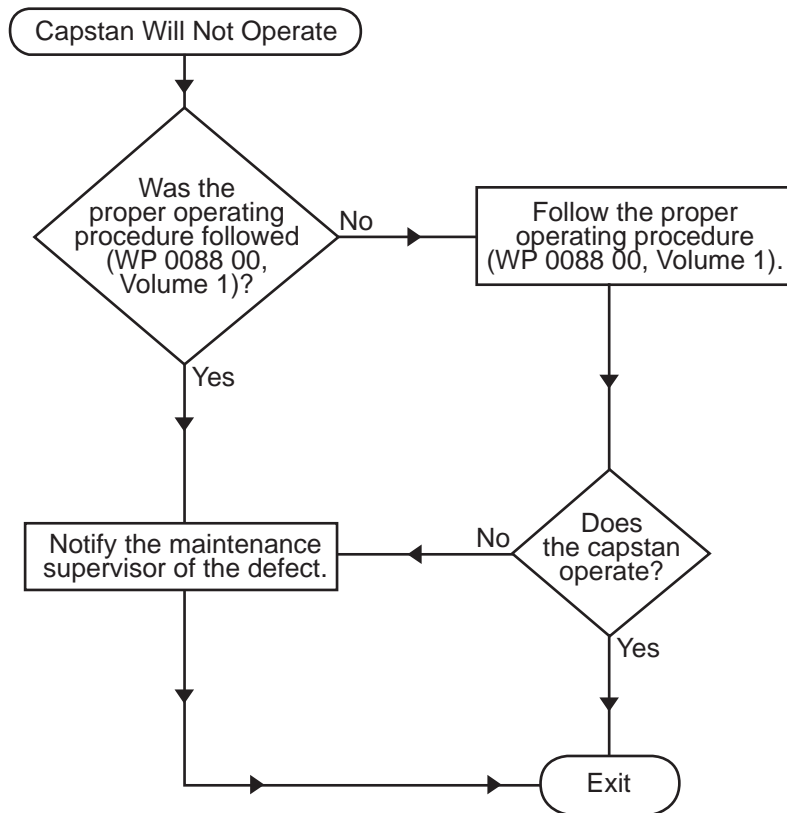
Procedure 16. Central HPU Will Not Operate



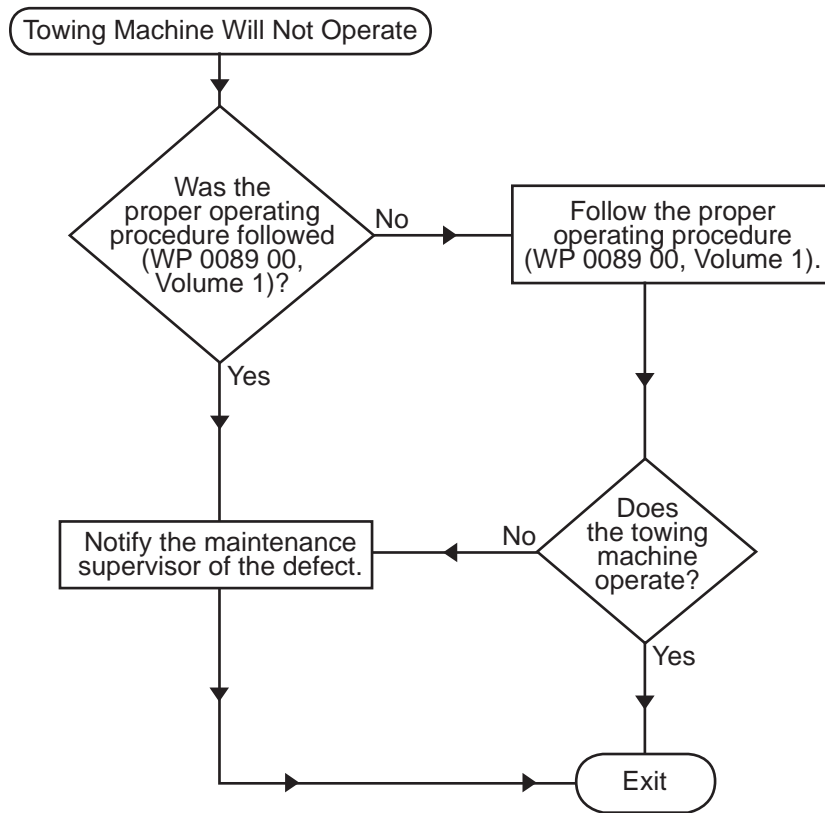
Procedure 17. Anchor Windlass Will Not Operate



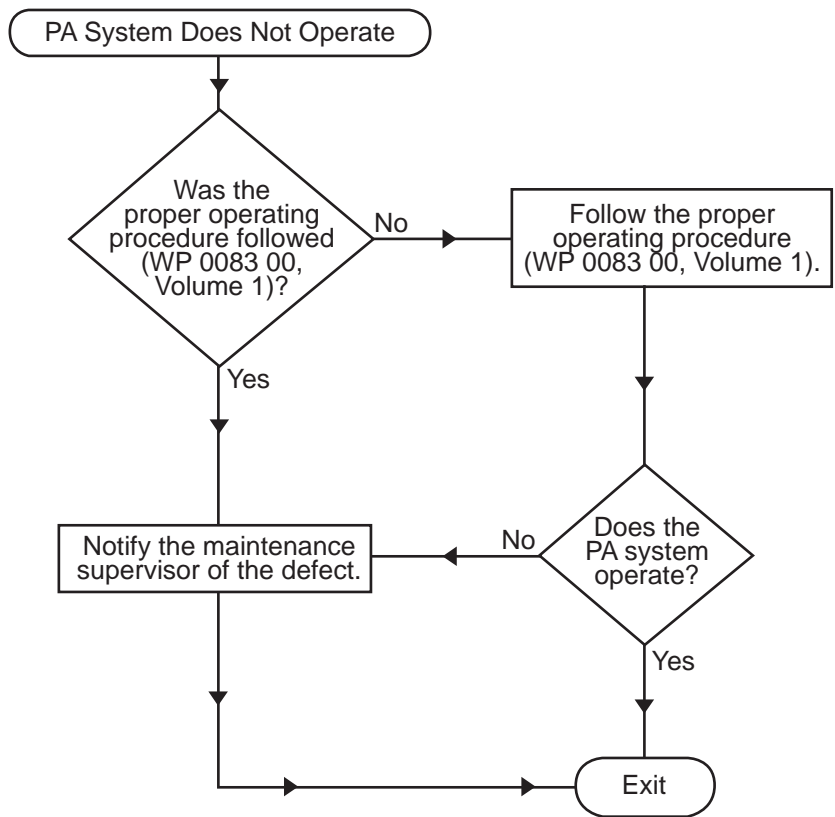
**Procedure 18. Crane Will Not Operate**



**Procedure 19. Capstan Will Not Operate**

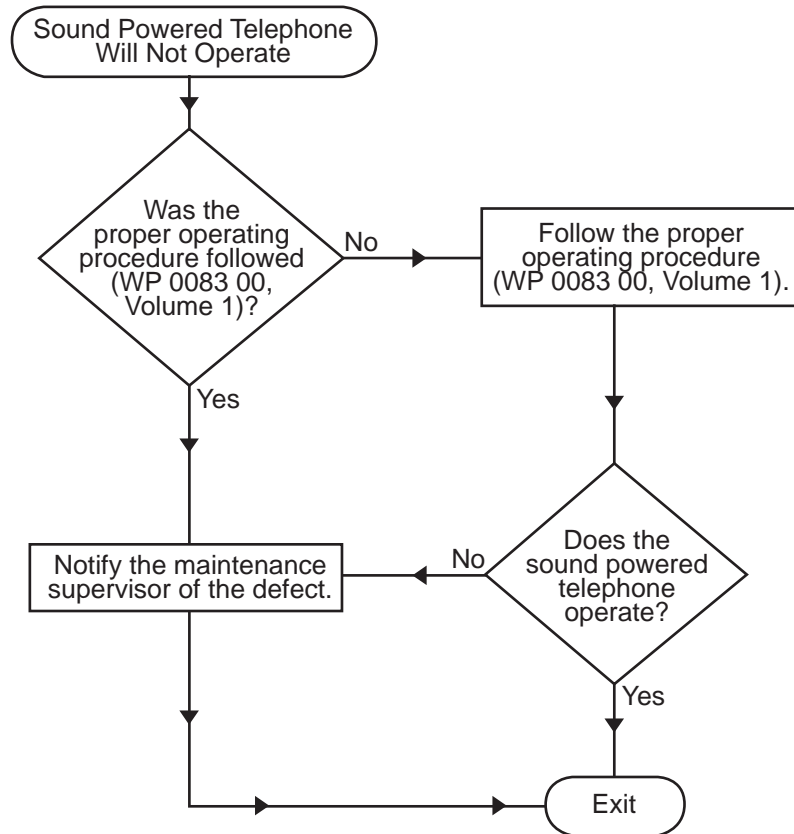


**Procedure 20. Towing Machine Will Not Operate**

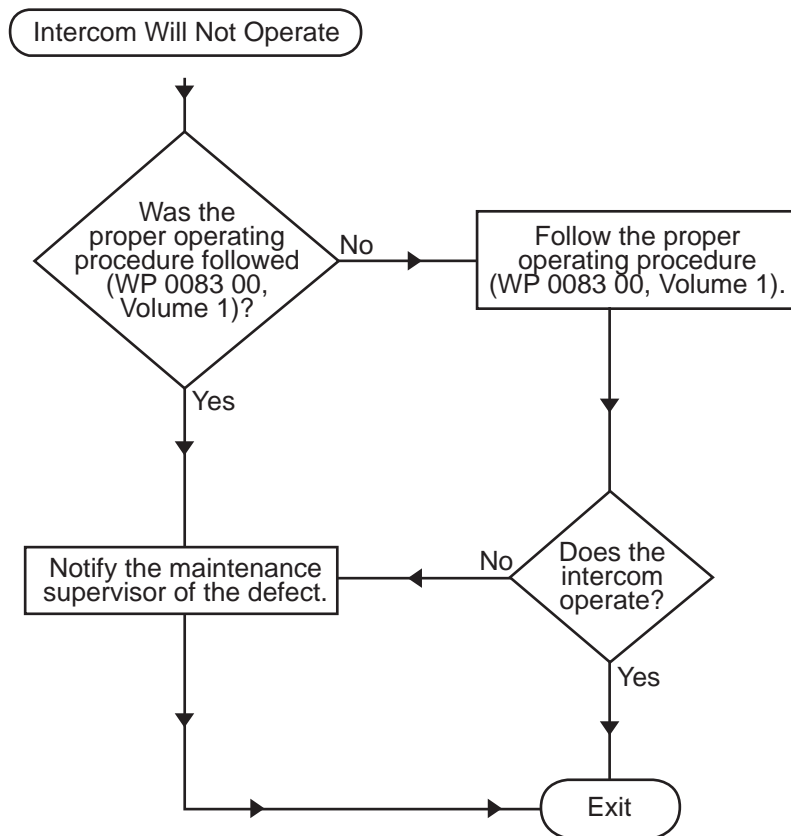


Procedure 21. PA System Does Not Operate

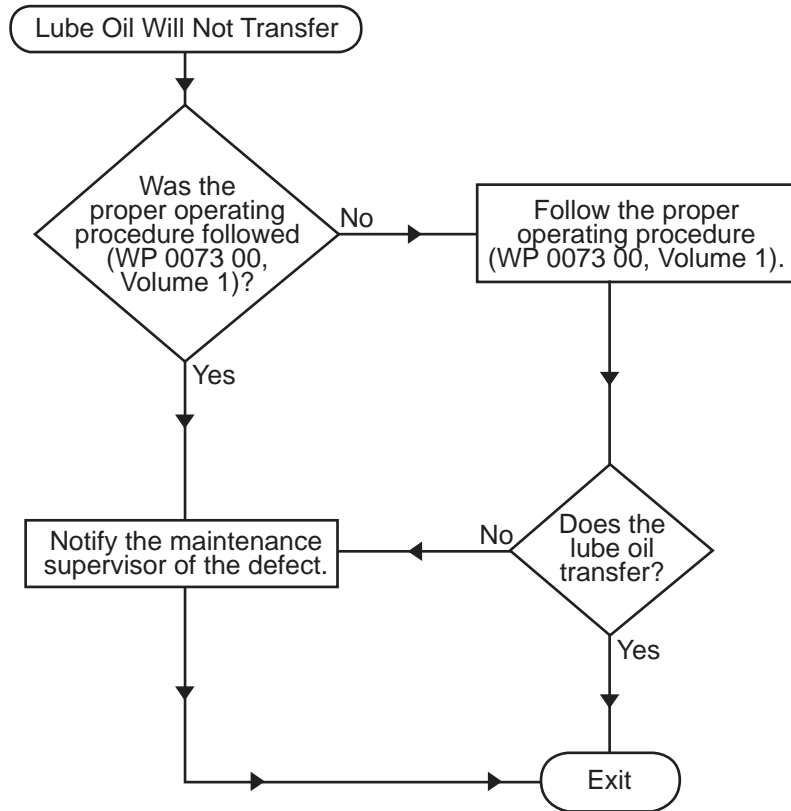




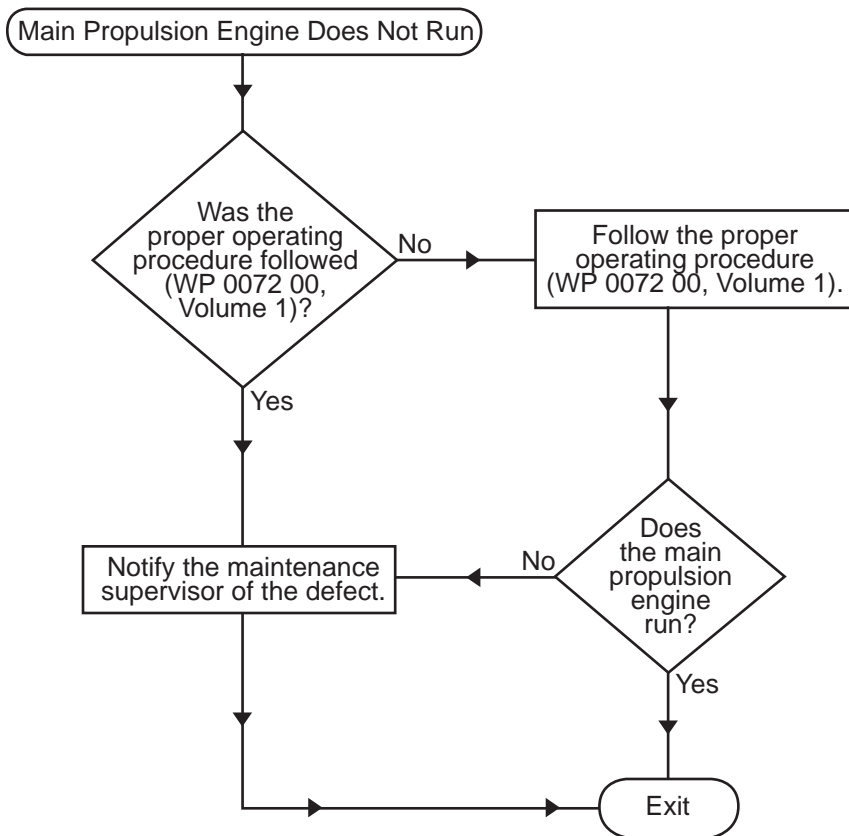
**Procedure 22. Sound Powered Telephone Will Not Operate**



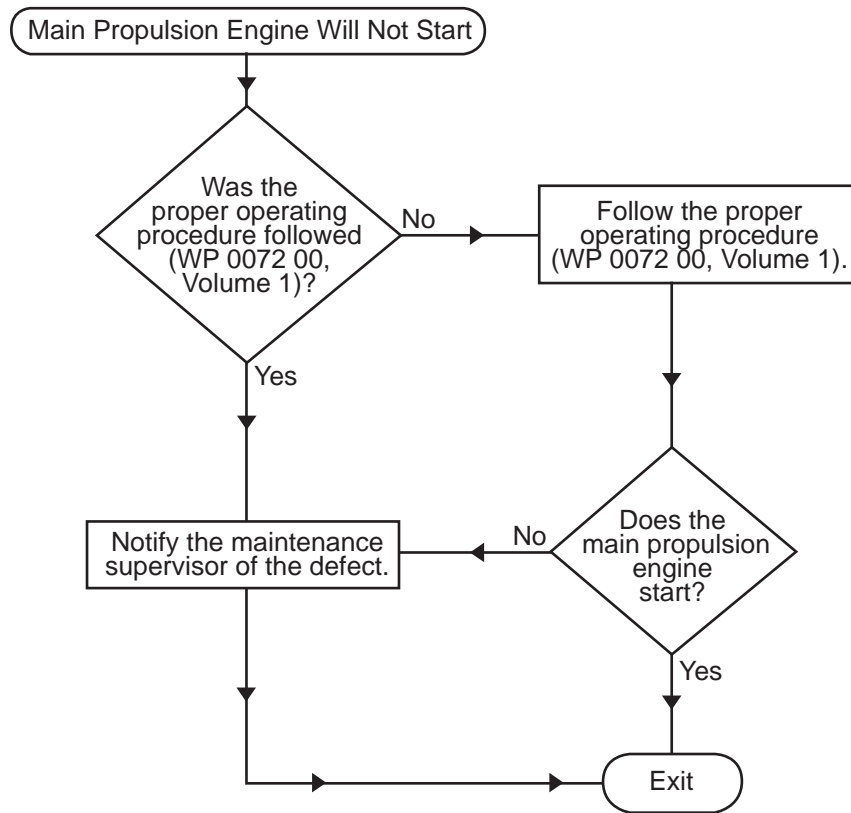
Procedure 23. Intercom Will Not Operate



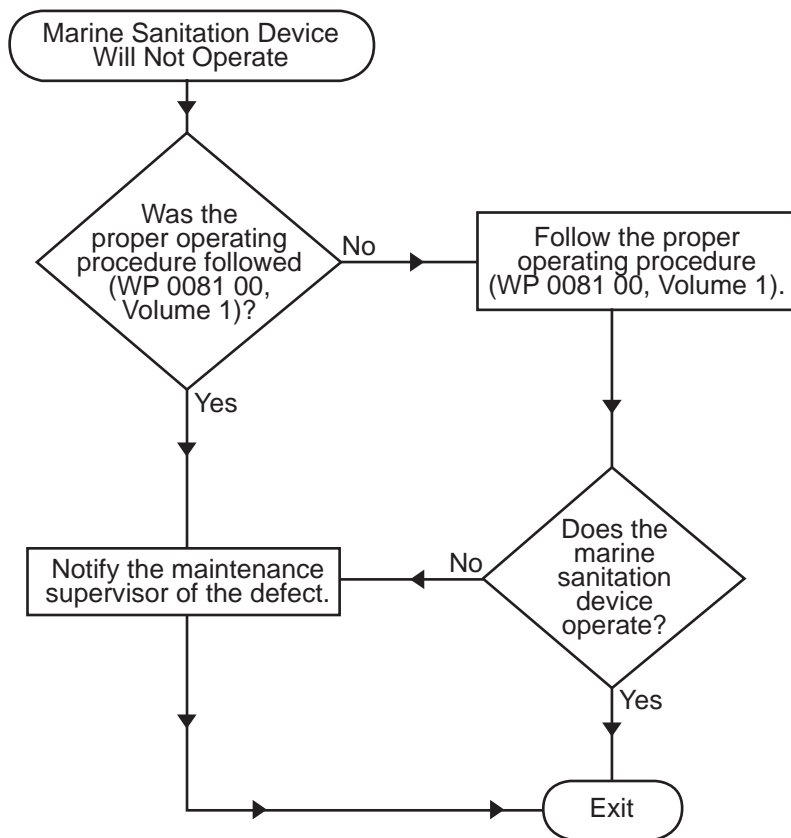
**Procedure 24. Lube Oil Will Not Transfer**



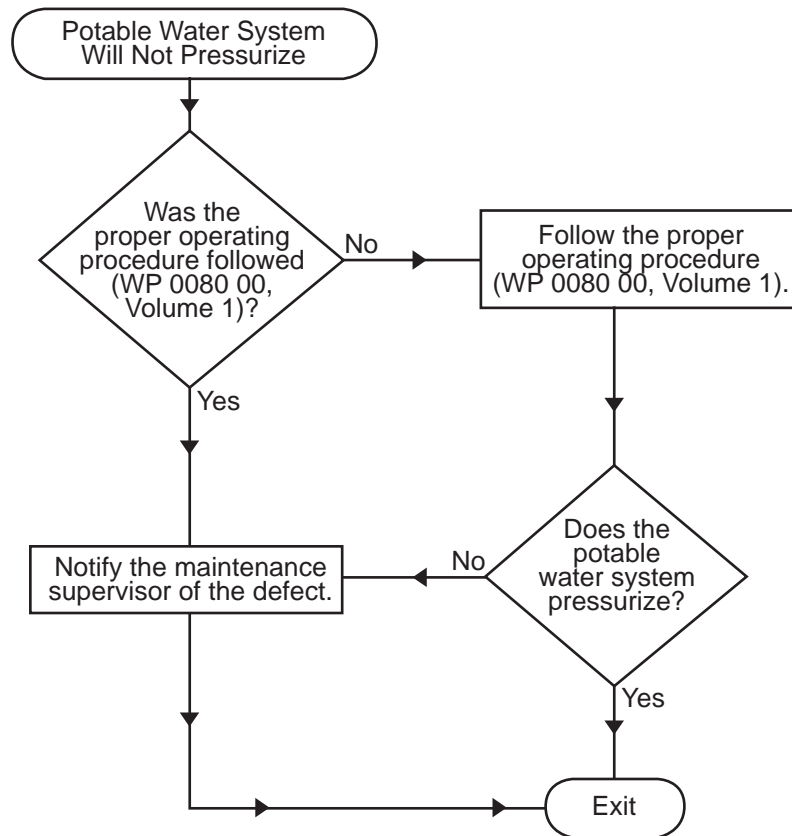
Procedure 25. Main Propulsion Engine Does Not Run



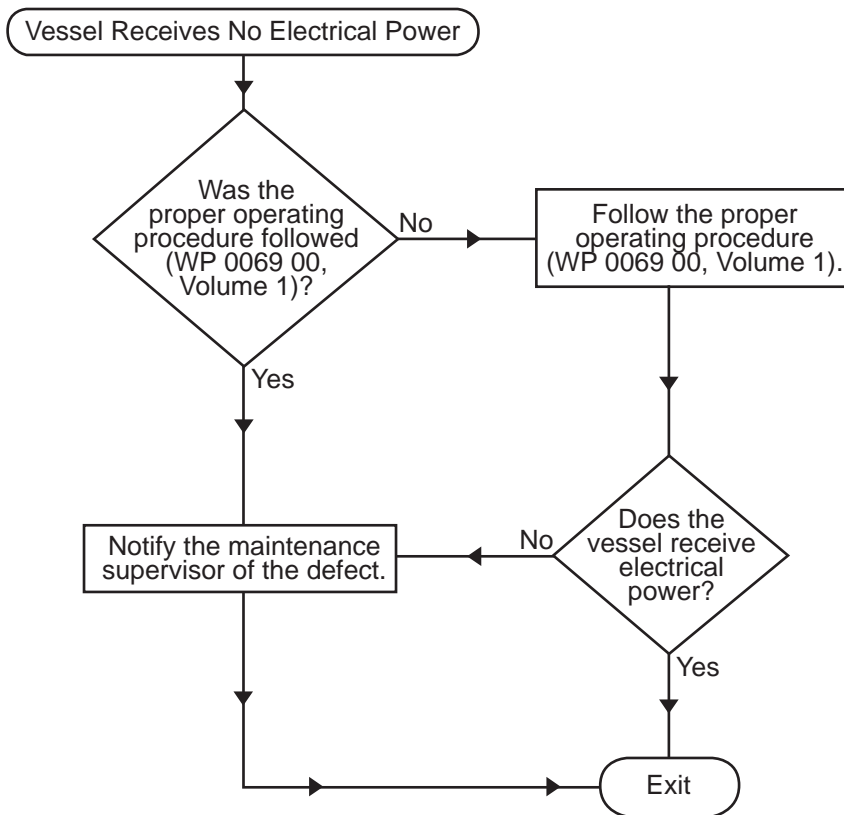
**Procedure 26. Main Propulsion Engine Will Not Start**



Procedure 27. Marine Sanitation Device Will Not Operate

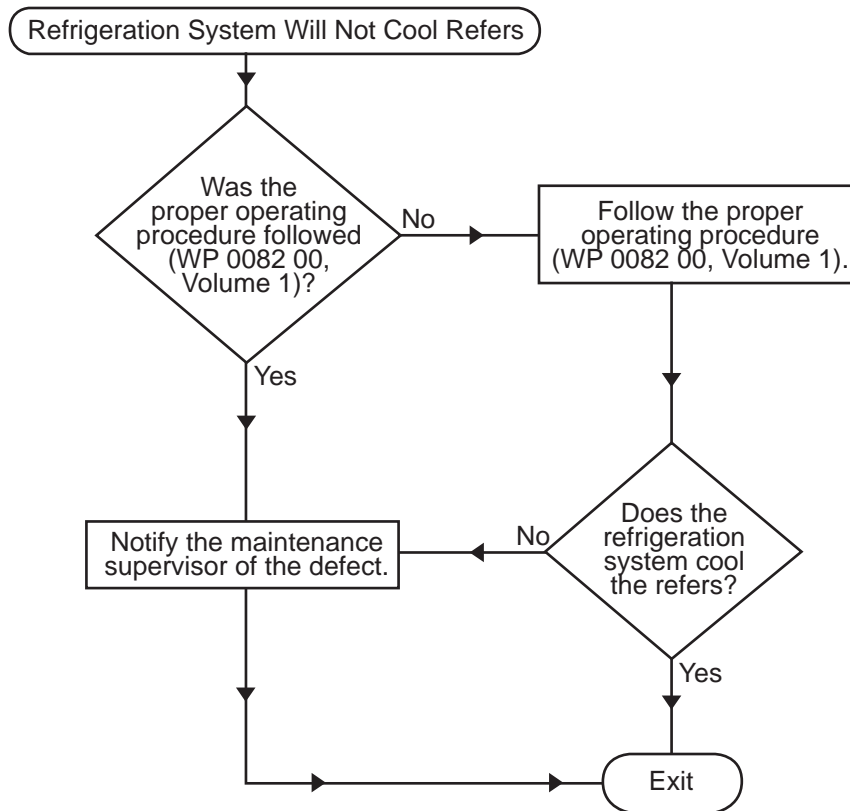


Procedure 28. Potable Water System Will Not Pressurize

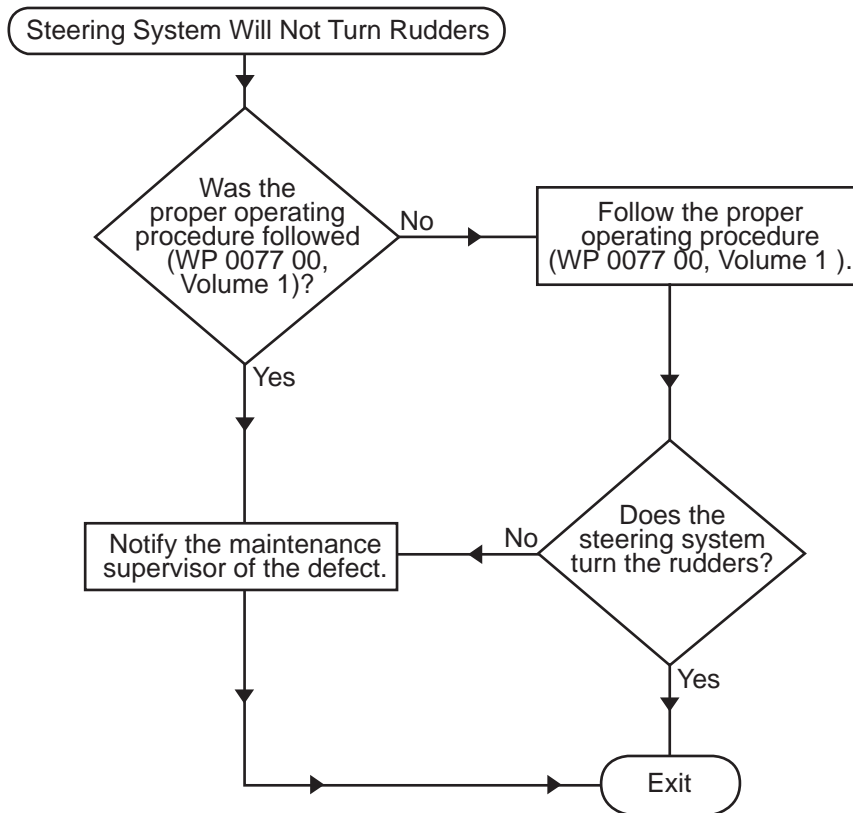


Procedure 29. Vessel Receives No Electrical Power





**Procedure 30. Refrigeration System Will Not Cool Refers**



**Procedure 31. Steering System Will Not Turn Rudders**

**Chapter 6**

**Maintenance Instructions**  
**for**  
**Inland and Coastal Large Tug (LT)**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PMCS INTRODUCTION**

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**PURPOSE AND USE OF PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) DATA**

PMCS is performed to keep the Large Tug (LT) in operating condition. The checks are used to find, correct, and report problems so that defects may be discovered and corrected. PMCS is to be accomplished each day the LT is operated, using the appropriate work packages. Pay attention to all WARNINGS, CAUTIONS, and NOTES that precede individual steps. WARNINGS indicate possible danger to personnel. CAUTIONS indicate possible damage to equipment. NOTES are for clarification and additional information. An explanation is prepared for each PMCS check entry, and for any general checks and services common to an entire piece of equipment or system. An explanation of PMCS chart columns follows:

**ITEM NUMBER COLUMN**

The checks and services are numbered within a specific work package in chronological order.

**INTERVAL**

This column indicates the periodicity of the check or service.

1. Prior to operating the LT, do Before PMCS.
2. During LT operation, do During PMCS.
3. Once a week do Weekly PMCS.
4. Do Monthly PMCS once a month. If equipment has not been operated in a month, also do During PMCS at the same time as Monthly PMCS.
5. Do Quarterly PMCS once a quarter. If the equipment has not been operated in a quarter, also do After PMCS at the same time as Quarterly PMCS.
6. Do Semiannual PMCS once every six months. If the equipment has not been operated within the last six months, also do the Monthly PMCS at the same time as Semiannual PMCS.
7. Do Annual PMCS once a year.
8. If a deficiency is noted when performing PMCS, fix it, if possible, using troubleshooting procedures and/or maintenance procedures. If the deficiency cannot be corrected, write up the items not fixed on DA Form 2404 Equipment Inspection, for unit maintenance. For further information on how to use this form, see DA PAM 738-750.

**MANHOUR**

This column indicates the projected amount of time that is expected to take to complete the check or service. Checks and services that require additional personnel include a cumulative amount of time.

**ITEM TO BE CHECKED OR SERVICED**

This column lists the equipment or item to be checked or serviced.

**PROCEDURE COLUMN**

This column contains a brief description of how to perform the checks and services, or it contains the reference to the work package or technical manual that contains the procedural information. Carefully follow the instructions. If the necessary tools are not available, or if the procedure indicates, have organizational maintenance do the work.

---

**EQUIPMENT NOT READY/AVAILABLE IF**

This column lists the criteria that will limit the use of equipment or make it not ready for use. Depending on the severity of the limitation, the LT may not be able to operate and perform its primary mission. The terms "ready/available" and "mission capable" refer to the same status: Equipment is on hand and can perform its combat mission. If tools required to perform PMCS are not listed in the work package, notify unit maintenance. Write up items not fixed on DA Form 2404 for unit maintenance. For further information on how to use this form, see DA PAM 738-750.

**DOCUMENTATION OF PMCS ITEM FAILURES**

PMCS item failures are to be recorded on DA Form 2404, Equipment Inspection and Maintenance Worksheet, and forwarded to unit maintenance via the vessel's chief engineer. Documentation of PMCS item failures must include the compartment location and item number within the work package to ensure proper dissemination. All corrected faults will be recorded on DA Form 4640 (Harbor Boat Deck Department Log for Class A&B Vessels) and DA Form 4993 (Harbor Boat Engine Department Log for Class A and C-1 Vessels). All uncorrected faults will be transcribed to a DA Form 2407, Maintenance Request, and the appropriate log entry must be made. The crew will service the LT as outlined by the intervals contained in the PMCS tables.

**CORROSION PREVENTION AND CONTROL (CPC)**

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems be reported so that they can be corrected and improvements made to prevent future problems. Corrosion is typically associated with rusting of metals, but it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of materials may indicate a corrosion problem. Suspected corrosion problems should be reported using SF 368 (Product Quality Deficiency Report). Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem.

**LEAKAGE DEFINITION** **CAUTION**

Equipment operation is allowable with minor leakages (Class I or II) except for fuel leaks. Of course, consideration must be given to the fluid capacity of the item or system being checked. When in doubt, ask your supervisor.

When operating with Class I or II leaks, continue to check fluid levels as required in your PMCS. Class III leaks should be reported immediately to your supervisor. It is necessary to know how fluid leakage affects the status of the LT. The following are definitions of the classes of leakage an operator or crewmember needs to know to be able to determine the condition of the leak. Learn and then be familiar with them. When in doubt, ask your supervisor.

**LEAKAGE CLASSIFICATIONS I, II, III**

Leakage classifications. Leakage definitions for operator/crew PMCS shall be classified as follows:

1. Class I: Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
2. Class II: Leakage of fluid great enough to form drops but not enough to cause drops to drip from the item being checked/inspected.
3. Class III: Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

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**INSPECTION**

Look for signs of a problem or trouble. Senses help here. You can feel, smell, hear, or see many problems. Be alert when on the vessel. Inspect to see if items are in good condition. Are they correctly assembled, stowed, secured, excessively worn, leaking, corroded, or properly lubricated? Correct any problems found or notify unit maintenance. There are some common items to check all over the LT. These include the following:

1. Bolts, clamps, nuts, and screws: Continuously check for looseness. Look for chipped paint, bare metal, rust, or corrosion around bolt and screw heads and nuts. Tighten them when you find them loose. If tools are not available, notify unit maintenance.
2. Welds: Many items on the LT are welded. To check these welds, look for chipped paint, rust, corrosion, or gaps. When these conditions exist, notify unit maintenance on DA Form 2404.
3. Electrical wires, connectors, and harnesses: Tighten loose connectors. Look for cracked or broken insulation, bare wires, and broken connectors. If any are found, notify unit maintenance.
4. Hoses and fluid lines: Look for wear, damage, and leaks, and make sure clamps and fittings are tight. Wet spots mean a leak. A stain by a fitting or connector can also mean a leak. When you find a leak, notify unit maintenance.

**GENERAL STATEMENT OF LUBRICATION REQUIREMENTS**

Any lubricants called out by PMCS in this manual are identified by standard military symbols (MIL-HDBK-113 and MIL-HDBK-275).

**LUBRICATION SERVICE INTERVALS - NORMAL CONDITIONS**

For safer, more trouble free operations, make sure that the LT is serviced when required. For the proper lubrication and service intervals, refer to work packages WP 0137 00 through WP 0160 00.

**LUBRICATION SERVICE INTERVALS - UNUSUAL CONDITIONS**

The LT may require extra service and care when it is operated under unusual conditions. High or low temperatures, long periods of hard use, or continued use in a dirty environment will break down the lubricants and fluids, requiring more frequent service.

**LUBRICATION UNIVERSALS**

1. Always clean fittings before lubricating them. Failure to do so can force contaminants into the bearing.
2. Always use the PMCS work packages as the guide for lubrication.
3. Never use the wrong type/grade of lubricant.
4. Never use too much lubricant.

**END OF WORK PACKAGE**

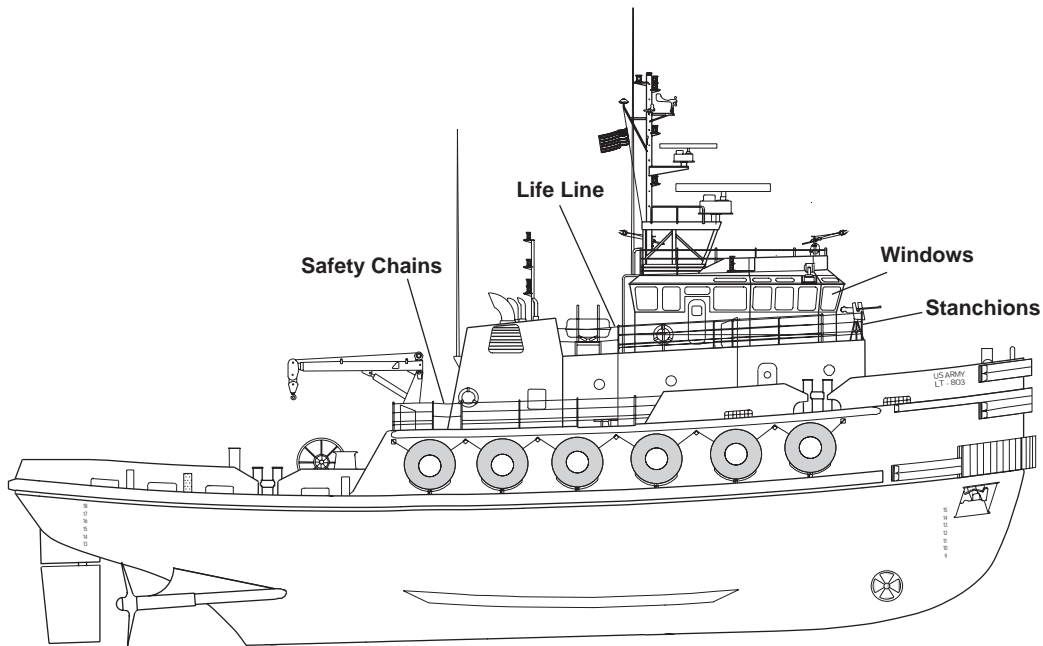




**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
GENERAL**

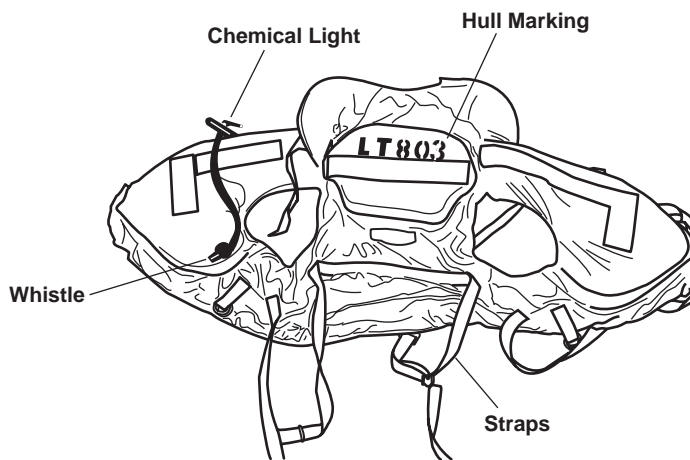
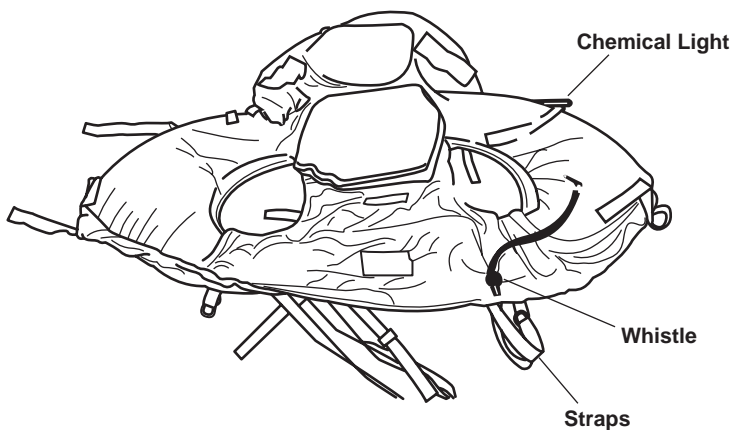
**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	20.0	ENTIRE VESSEL  GENERAL VESSEL CLEANLINESS	Inspect glass, frames, and brackets for damage. Clean all windows, vents and ports, and inspect the entire vessel for cleanliness.	
2	Before	0.5	LIFE LINES AND STANCHIONS  Life Lines and Stanchions	Ensure that life lines are in good condition, and are secured in place. Visually inspect safety chains for wear and corrosion.	
3	Before	0.2	Safety Chains	Ensure that safety chains are utilized where required.	



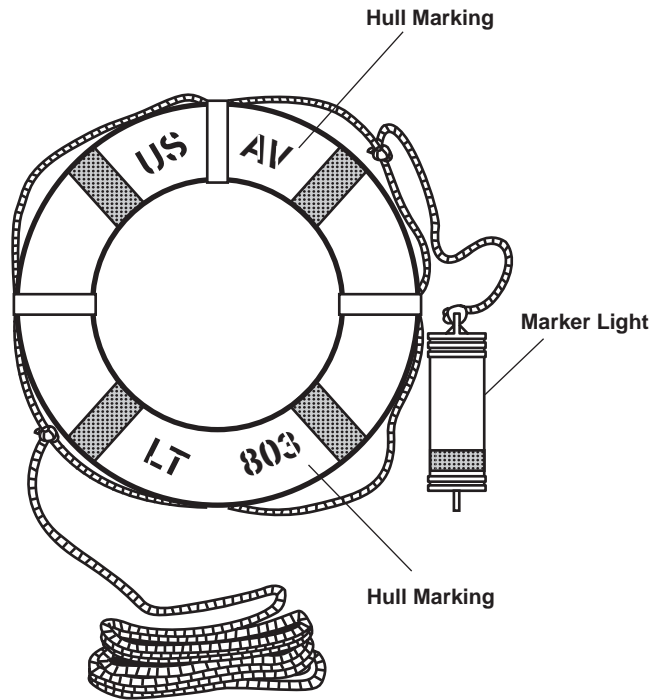
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before	1.3	<p>LIFESAVING EQUIPMENT</p> <p>LIFE JACKETS</p> <p>Life Jacket Condition</p>	<p>Inspect jackets for rips, oil stains, broken straps, fiber deterioration, and hull marking of vessel. Ensure a sufficient number onboard for passengers and crew.</p>	<p>Life jackets are unserviceable.</p>



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Before	0.3	Life Jacket Light and Whistle	Check that the chemical light is attached to the life jacket, that the case is not damaged, and that the expiration date has not passed. Check that the whistle is attached and not damaged.	Chemical light is missing or case is damaged. Whistle is missing or damaged.
6	Before	0.2	Life Rings	Inspect for damage and proper marking. Check that the marker light functions when the casing is turned upright.	Life ring damaged. Marker light inoperable.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

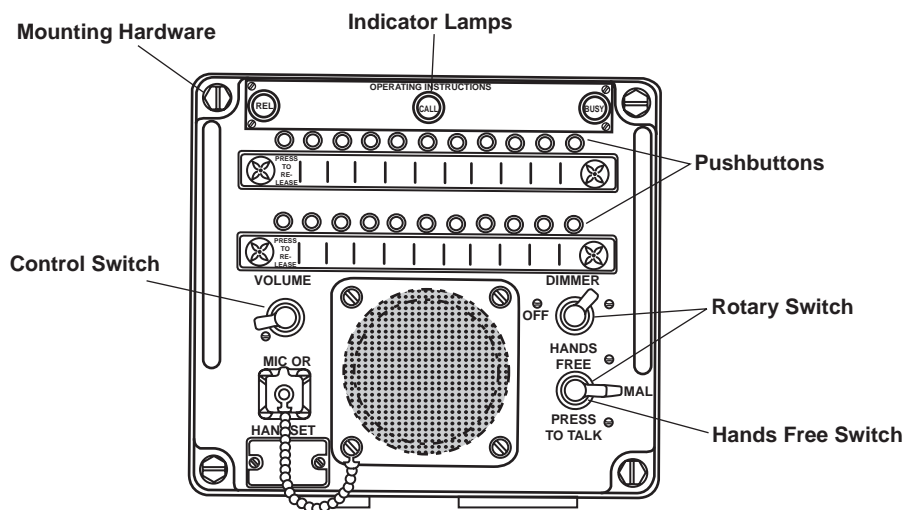
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Before	0.2	<p>FIRE DETECTION, SUPPRESSION, AND ALARM SYSTEMS</p> <p>Fire Alarm Pull Station</p>	<p>Inspect box and pull handles for damage. Document all defects and discrepancies, and refer to unit maintenance.</p> <div> </div>	<p>Damage or condition exists fire alarm pull station inoperable.</p>
8	Before		<p>Thermal Heat Detectors and Ionization Smoke Detectors</p>	<p>Inspect thermal heat detectors and ionization smoke detectors for damage.</p> <div> </div>	<p>Damage or condition that makes the detector inoperable.</p>

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Before	2.0	<p>FIRE STATIONS</p> <p>Hose and Connection</p>	<div style="border: 2px solid black; padding: 5px; text-align: center; font-weight: bold;">WARNING</div> <p><b>During inspections, immediately report any defects to your supervisor and correct without delay, or refer to unit maintenance.</b></p> <p>a. Inspect the fire hose in the hose rack for tears, fraying, or cuts.</p> <p>b. Check hose connections for tightness.</p>	<p>Hose is unserviceable.</p> <p>Connections will not attach properly.</p>
10	Before	0.7	Nozzle	<p>Check nozzle and nozzle handle for proper operation.</p> <div style="text-align: center;"> </div>	Nozzle is unserviceable.
11	Before	0.2	<p>PORTABLE FIRE EXTINGUISHERS</p> <div style="text-align: center;"> </div>	<p>a. Inspect for tight mounting, full charge, corroded nozzles, and closed valves.</p> <p>b. Verify that certification information is correct and that the seals have not been tampered with. Direct particular attention to extinguisher lines and nozzles in the engine room, checking damage.</p>	<p>Extinguisher discharged or damaged.</p> <p>Extinguisher is damaged, the seal is broken, and/or the certification is out of date.</p>

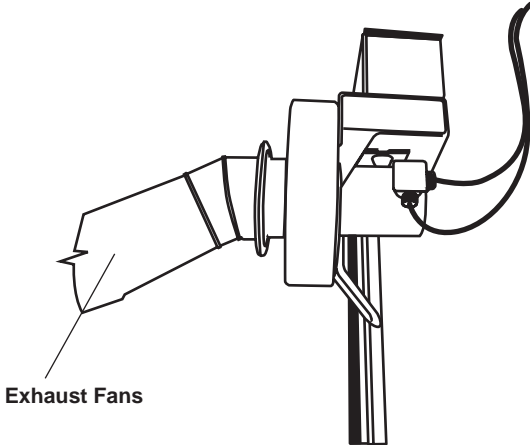
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Before	0.3	INTERCOM SYSTEM Exterior	Visually inspect exterior for damage, water accumulation, or dirt buildup. Clean using a soft cloth.	
13	Before	0.3	Hardware	Inspect mounting hardware for tightness. Tighten as necessary.	

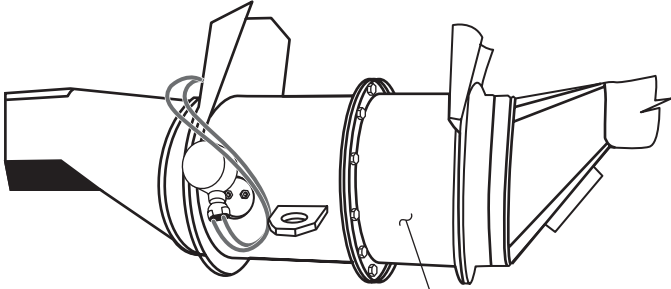


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Before	0.3	HVAC EQUIPMENT  Supply and Exhaust Fans	Check units for unusual noises or excessive vibration and that intake/exhaust screens are clean and free of debris.	If either fan fails to operate.



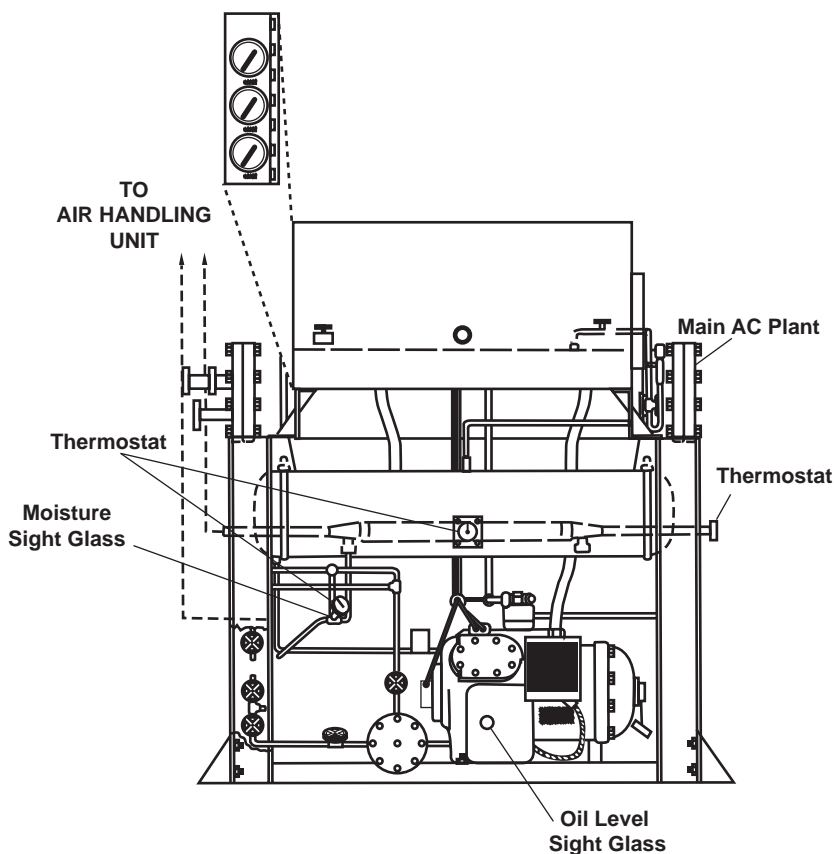
Exhaust Fans



Supply Fan

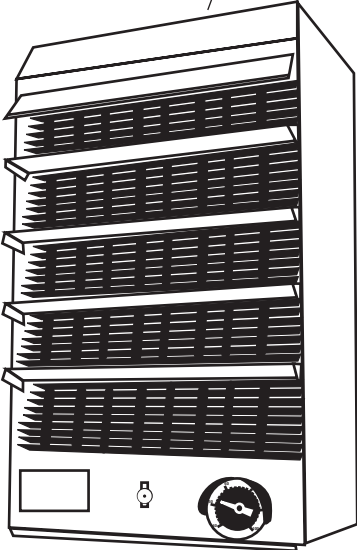
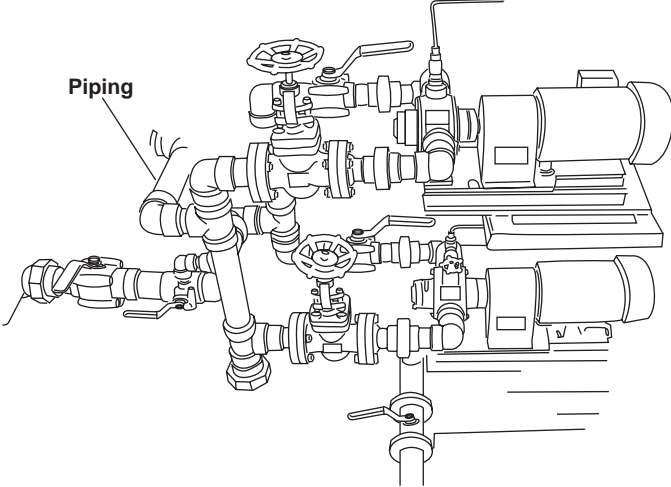
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Before	0.3	Thermostats	Visually check thermostats for signs of wear, dirt buildup, damage, and corrosion.	
16	Before	0.3	Air Conditioner Units	Check units for operation. Check oil level and state of charge. Check the moisture sight glass for bubbles.	If main deck AC/air handler fails to operate.

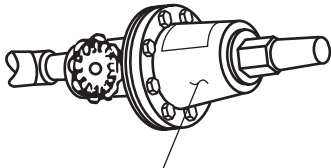
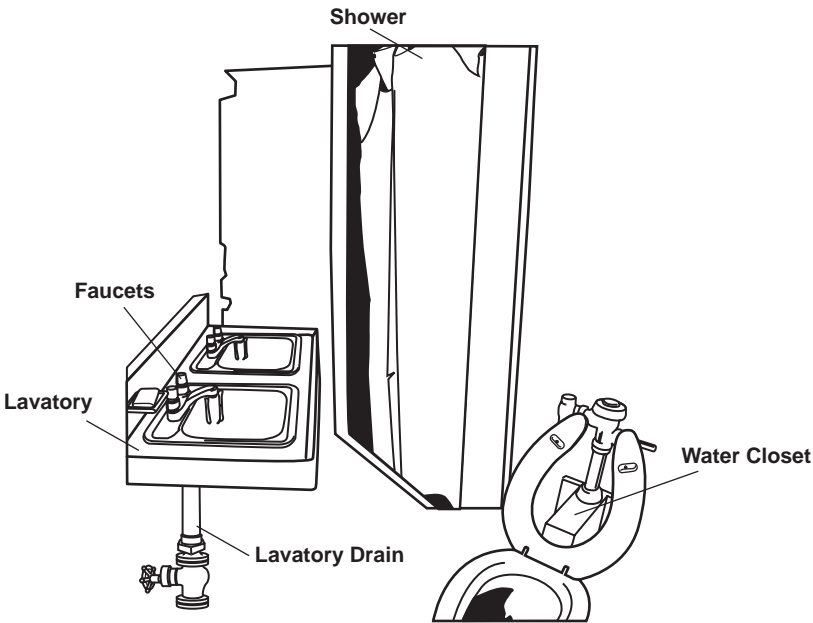




**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

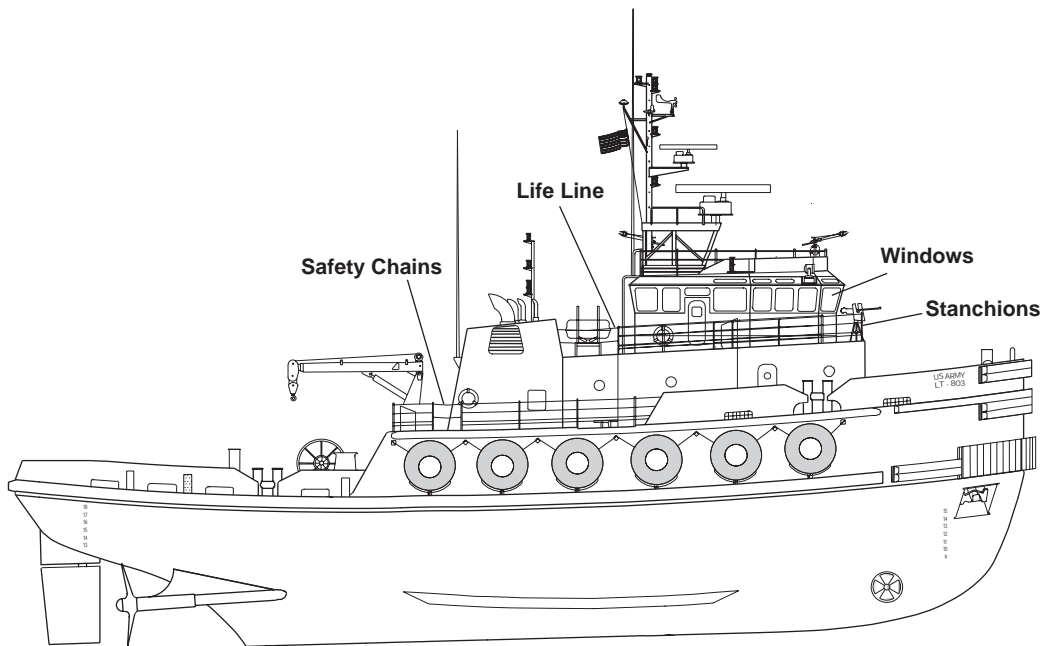
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Before	1.5	Unit Heaters	<p>Check that heater mountings are secure. Check for obvious damage. Ensure that heaters operate when they are turned on.</p> <p style="text-align: center;"><b>UNIT HEATER</b></p> 	Heaters do not operate when turned on.
18	Before	4.0	<p>PIPING SYSTEMS</p> <p>Piping</p>	<p>Visually inspect all piping for leaks. Pay particular attention to all valves connections, joints, etc. Correct all leaks or document and report discrepancies/damage/Class III leakage to engineer on watch and unit maintenance.</p> 	Class III leaks. Any fuel, coolant, or oil leaks.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Before	1.0	Pressure Reducing Valves	Inspect all pressure reducing valves for proper operation. Report discrepancies/ damage to engineer on watch and unit maintenance.	Pressure reducing valve inoperative.
 <p>Pressure Reducing Valve</p>					
20	Before	1.0	Sanitary Spaces	Visually inspect all faucets on lavatories and showers for leaks. Inspect all water closets for leaks and stoppage. Inspect the shower and lavatory drains to ensure that they are unstopped. If Class III leakage is observed, or if drains or commodes are stopped, refer to supervisor and to unit maintenance.	Class III leaks from the sewage system.
					

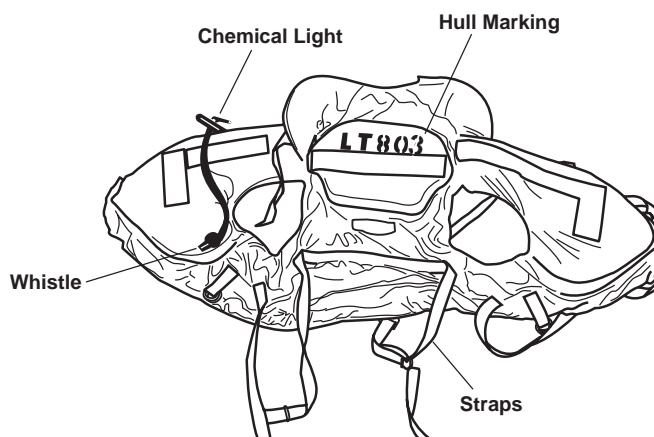
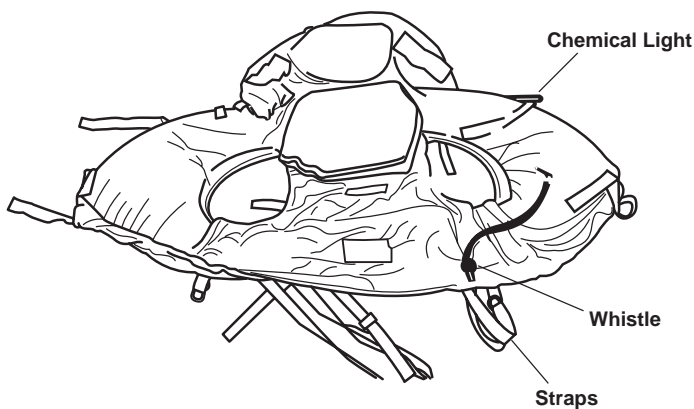
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
21	During	20.0	ENTIRE VESSEL  GENERAL VESSEL CLEANLINESS	Inspect glass, frames, and brackets for damage. Clean all windows, vents and ports, and inspect the entire vessel for cleanliness.	
22	During	0.5	LIFE LINES AND STANCHIONS  Life Lines and Stanchions	Ensure that life lines are in good condition, and are secured in place. Visually inspect safety chains for wear and corrosion.	
23	During	0.2	Safety Chains	Ensure that safety chains are utilized where required.	



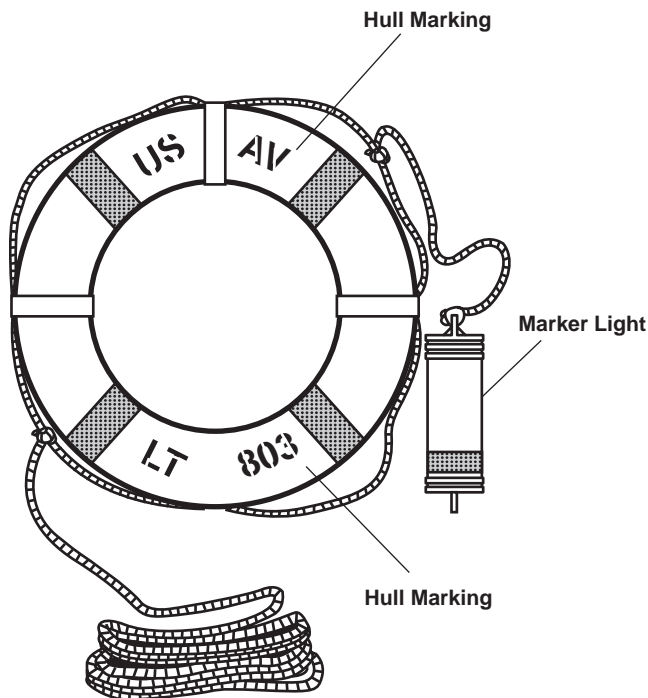
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
24	Before	1.3	LIFESAVING EQUIPMENT Life Jacket Condition	Inspect jackets for rips, oil stains, broken straps, fiber deterioration, and hull marking of vessel. Ensure a sufficient number onboard for passengers and crew.	Life jackets are unserviceable.
25	Before	0.3	Life Jacket Light and Whistle	Check that the chemical light is attached to the life jacket, that the case is not damaged, and that the expiration date has not passed. Check that the whistle is attached and not damaged.	Chemical light is missing or case is damaged. Whistle is missing or damaged.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
26	Before	0.2	Life Rings	Inspect for damage and proper marking. Check that the marker light functions when the casing is turned upright.	Life ring damaged. Marker light inoperable.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

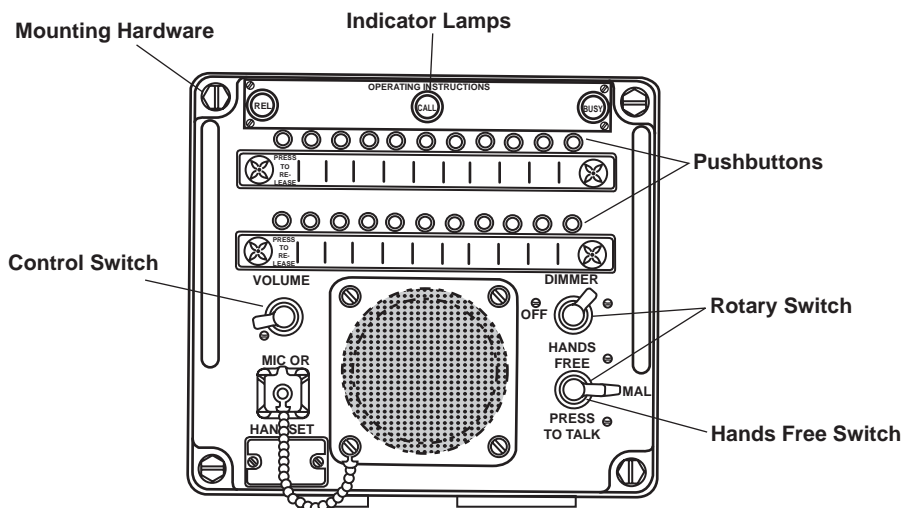
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
27	During	0.2	<p>FIRE DETECTION, SUPPRESSION, AND ALARM SYSTEMS</p> <p>Fire Alarm Pull Station</p>	<p>Inspect box and pull handles for damage. Document all defects and discrepancies, and refer to unit maintenance.</p> <div style="text-align: center;"> </div>	<p>Damage or condition exists fire alarm pull station inoperable.</p>
28	During		<p>Thermal Heat Detectors and Ionization Smoke Detectors</p>	<p>Inspect thermal heat detectors and ionization smoke detectors for damage.</p> <div style="text-align: center;"> </div>	<p>Damage or condition that makes the detector inoperable.</p>

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
29	During	2.0	<p>FIRE STATIONS</p> <p>Hose and Connection</p>	<div style="border: 2px solid black; padding: 5px; text-align: center; font-weight: bold;">WARNING</div> <p><b>During inspections, immediately report any defects to your supervisor and correct without delay, or refer to unit maintenance.</b></p> <p>a. Inspect the fire hose in the hose rack for tears, fraying, or cuts.</p> <p>b. Check hose connections for tightness.</p>	<p>Hose is unserviceable.</p> <p>Connections will not attach properly.</p>
30	During	0.7	Nozzle	<p>Check nozzle and nozzle handle for proper operation.</p> <div style="text-align: center;"> </div>	<p>Nozzle is unserviceable.</p>
31	During	0.2	<p>PORTABLE FIRE EXTINGUISHERS</p> <div style="text-align: center;"> </div>	<p>a. Inspect for tight mounting, full charge, corroded nozzles, and closed valves.</p> <p>b. Verify that certification information is correct and that the seals have not been tampered with. Direct particular attention to extinguisher lines and nozzles in the engine room, checking damage.</p>	<p>Extinguisher discharged or damaged.</p> <p>Extinguisher is damaged, the seal is broken, and/or the certification is out of date.</p>

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

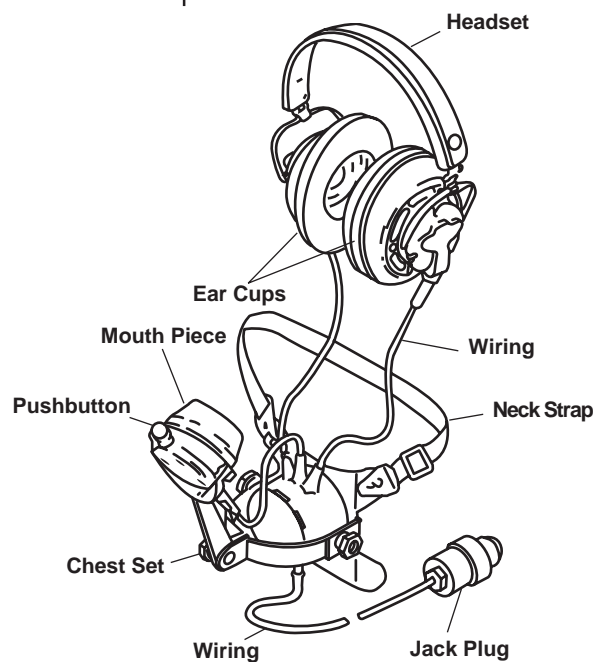
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
32	During	0.3	INTERCOM SYSTEM Rotary switches	Check mechanical operation of each rotary switch. Replace any worn or incorrectly operating parts.	Damaged or defective parts.
33	During	2.0	Unit performance	Check the two-way voice capability of the master station. Select the other stations on the system and conduct a two-way conversation. Transmissions and receptions should be clear, undistorted and easily understood.	
34	During	0.3	Indicator Lamps	The CALL lamps at the called station(s) should be lit. The REL lamp at the calling station should be lit. If the called station is busy, the BUSY light should be lit.	
35	During	0.3	Control Switches	Check the control switches. Vary the position of the dimmer control switch and observe the intensity of the panel illumination. Vary the VOLUME control during reception, and verify that the intensity of received speech is controlled.	
36	During	0.3	Hands Free Operation	Check the hands free capability by operating hands free with another station in the system.	





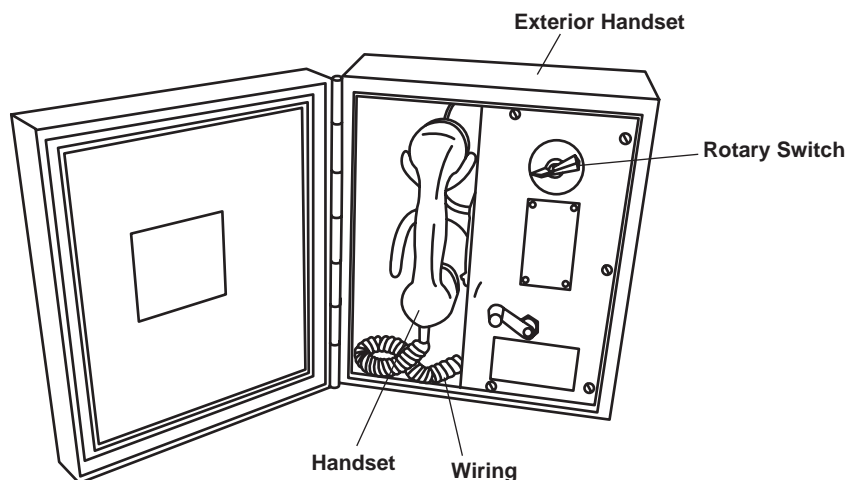
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
37	During	0.5	<p>SOUND POWERED TELEPHONES</p> <p>Head Set-Chest Set</p>	<p>a. Visually inspect head set connections to the chest set for frayed wiring or loose connections.</p> <p>b. Inspect ear cups for tears and cleanliness.</p> <p>c. Inspect neck straps for fraying or missing fasteners.</p> <p>d. Press pushbutton on the mouthpiece and release. Verify that the pushbutton goes in and out.</p> <p>e. Visually inspect the wire from chest set to jack plug for loose connections, cracks, or damaged insulation.</p>	<p>Any part of this system fails to operate.</p>
38	During	0.2	<p>Transmission Reception</p>	<p>Check the two-way voice capability of the headset. Select another station on the system and conduct a two-way conversation. Transmission and receptions should be clear, undistorted, and easily understood.</p>	





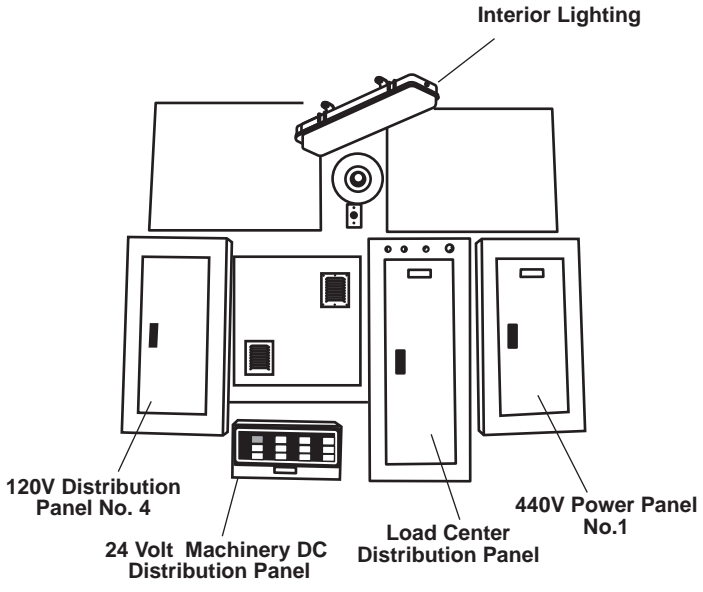
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
39	During	0.5	Exterior Handsets Wiring	Visually inspect the handset and wiring for loose connections. Tighten as necessary.	
40	During	1.5	Exterior	Visually inspect exterior for damage, water accumulation, or dirt buildup. Clean using a soft, clean cloth.	
41	During	0.5	Rotary Switches	Check mechanical operation for each rotary switch.	
42	During	1.0	Operation	Transmissions and receptions should be clear, undistorted and easily understood.	
43	During	0.5	Indicators	Check the audible alarms and indicators, where applicable. On model SWLR, the indicator light should light along with the calling signal. Document all observed unit malfunctions and refer to unit maintenance.	



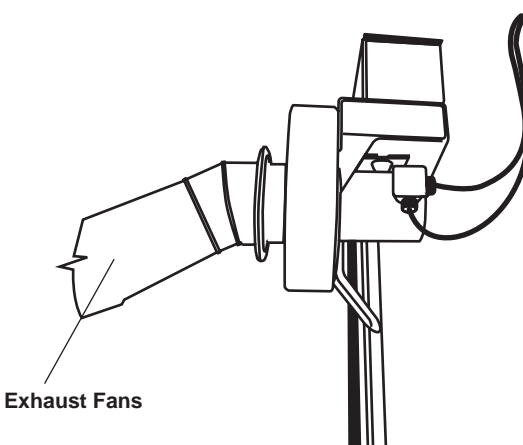
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
44	During	4.5	POWER DISTRIBUTION SYSTEM (INCLUDING 24 VDC PANELS)	<div style="text-align: center;">  <p><b>WARNING</b></p>  <p><b>Electrical wiring, panels, and components contain high voltages that can cause severe injury or death.</b></p> <p><b>NOTE</b> Electrical wiring checks and services consist of visual inspections only. Observe all CAUTION and WARNING labels on electrical equipment.</p> <p>a. Inspect power and lighting panels, motor controllers, and other electrical panels for secure mounting.</p> <p>b. Visually inspect panel surfaces for damage.</p> </div>	If any part of this system fails.
45	During	0.5	Interior and Exterior Lighting	<p>Inspect lighting fixtures for secure mountings and obvious damage. Ensure that fixtures operate when turned on.</p>	<p>Panel is not securely mounted.</p> <p>Panel has damage that could affect its operation.</p> <p>Emergency lighting fixtures do not operate when turned on.</p>

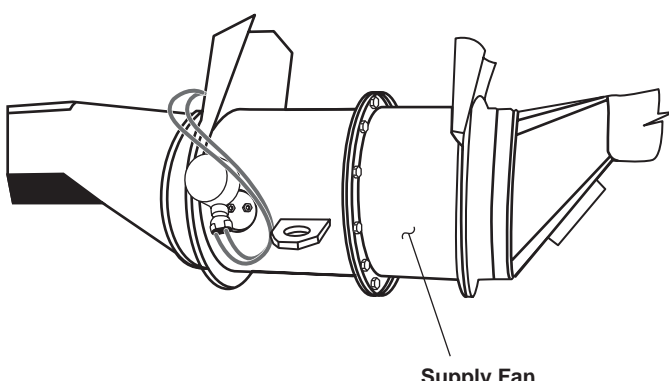


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
46	During	0.3	HVAC EQUIPMENT Supply and Exhaust Fans	Check units for unusual noises or excessive vibration and that the intake/exhaust screens are clean and free of debris.	If either fan fails to operate.
47	During	0.3	Thermostats	Visually check thermostats for signs of wear, dirt buildup, damage, and corrosion.	



Exhaust Fans

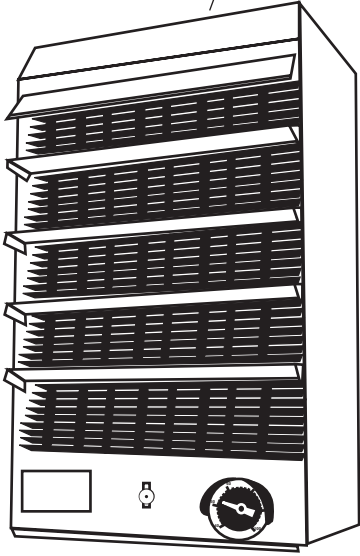
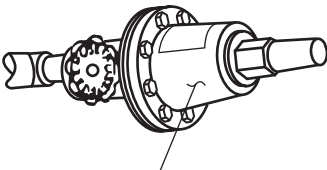


Supply Fan

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

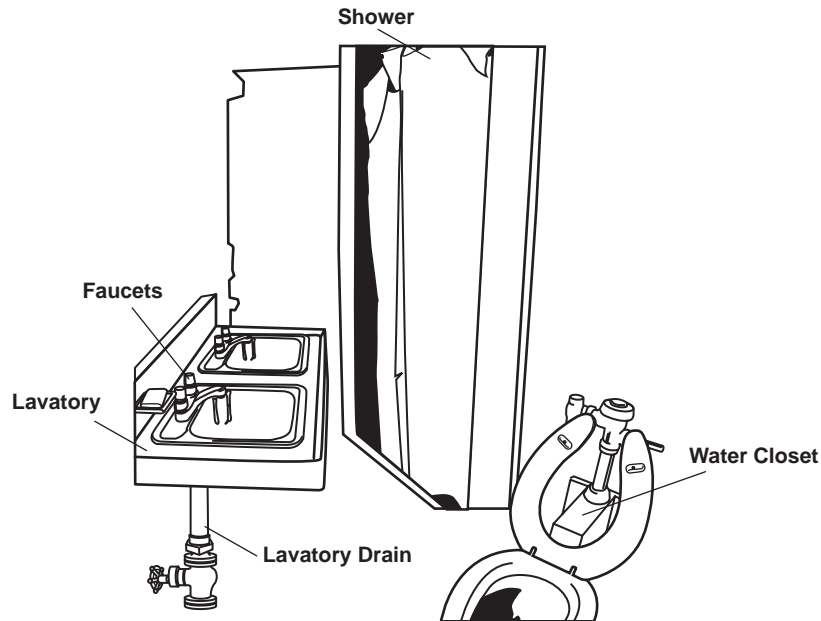
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
48	During	0.3	Air Conditioner Units	Check units for operation.	If main deck AC/air handler fails to operate.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
49	During	0.3	Unit Heaters	<p>Check that heater mountings are secure. Check for obvious damage. Ensure that heaters operate when they are turned on.</p> <p style="text-align: center;"><b>UNIT HEATER</b></p> 	Heaters do not operate when turned on.
50	During	1.0	<p>PIPING SYSTEMS</p> <p>Pressure Reducing Valves</p>	<p>Inspect all pressure reducing valves for proper operation. Report discrepancies/ damage to engineer on watch and unit maintenance.</p>  <p style="text-align: center;"><b>Pressure Reducing Valve</b></p>	Pressure reducing valve inoperative.

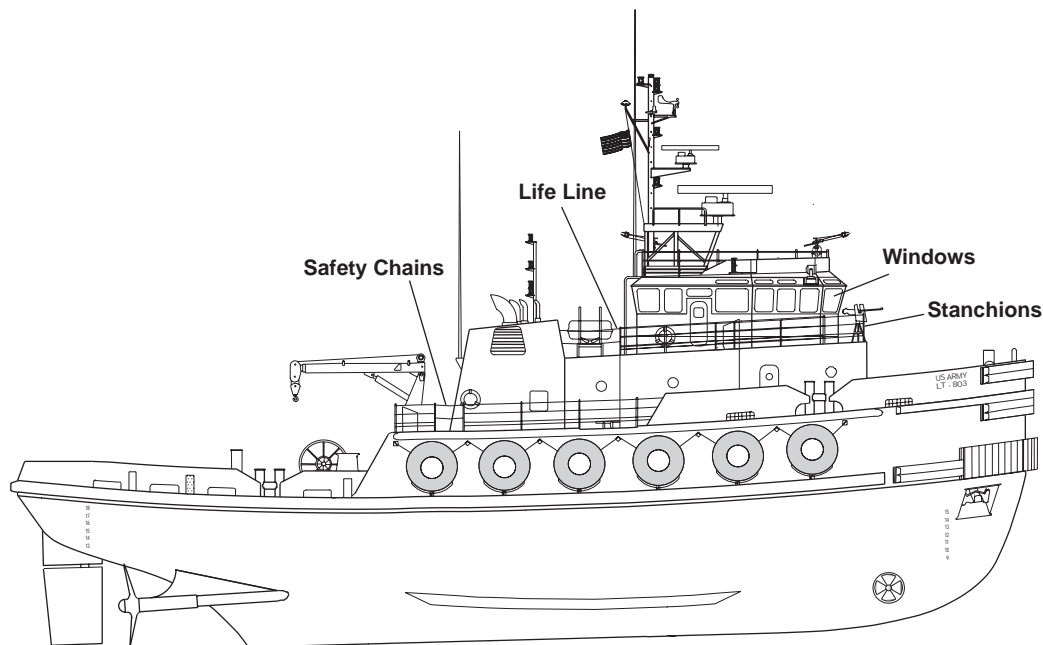
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
51	During	1.0	Sanitary Spaces	<p>Visually inspect all faucets on lavatories and showers for leaks. Inspect all water closets for leaks and stoppage. Inspect shower and lavatory drains to ensure that they are unstopped. If Class III leakage is observed, or if drains or commodes are stopped, refer to supervisor and to unit maintenance.</p>	Class III leaks from the sewage system.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
52	After	20.0	ENTIRE VESSEL GENERAL VESSEL CLEANLINESS	Inspect glass, frames, and brackets for damage. Clean all windows, vents and ports, and inspect the entire vessel for cleanliness.	
53	After	0.5	LIFE LINES AND STANCHIONS Life Lines and Stanchions	Ensure that life lines are in good condition, and are secured in place. Visually inspect safety chains for wear and corrosion.	
54	After	0.2	Safety Chains	Ensure that safety chains are utilized where required.	

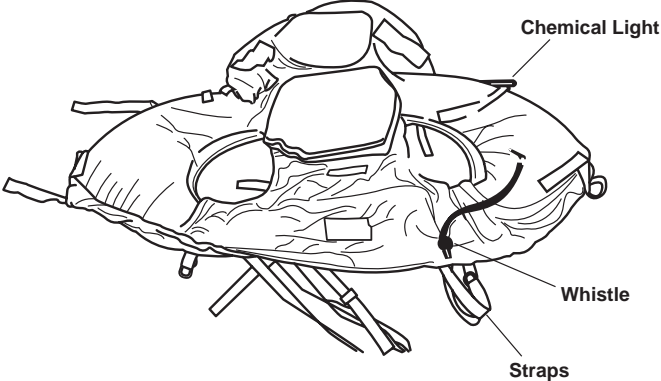




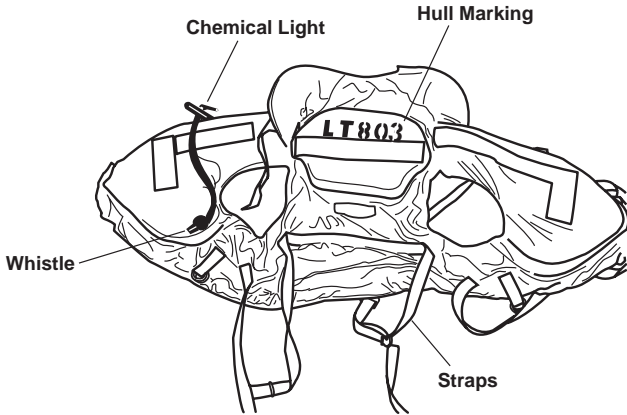
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
55	After	1.3	<p>LIFESAVING EQUIPMENT</p> <p>LIFE JACKETS</p> <p>Life Jacket Condition</p>	<p>Inspect jackets for rips, oil stains, broken straps, fiber deterioration, and hull marking of vessel. Ensure a sufficient number onboard for passengers and crew.</p>	<p>Life jackets are unserviceable.</p>
56	After	0.3	<p>Life Jacket Light and Whistle</p>	<p>Check that the chemical light is attached to the life jacket, that the case is not damaged, and that the expiration date has not passed. Check that the whistle is attached and not damaged.</p>	<p>Chemical light is missing or case is damaged. Whistle is missing or damaged.</p>

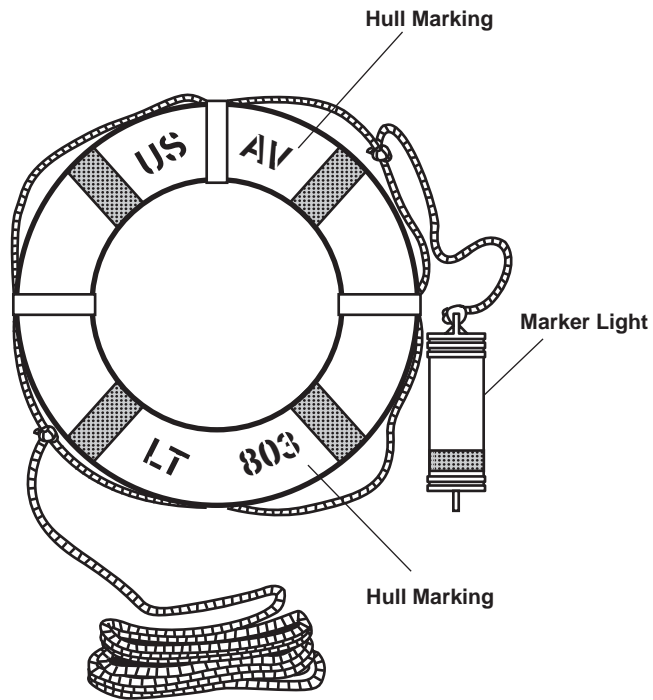




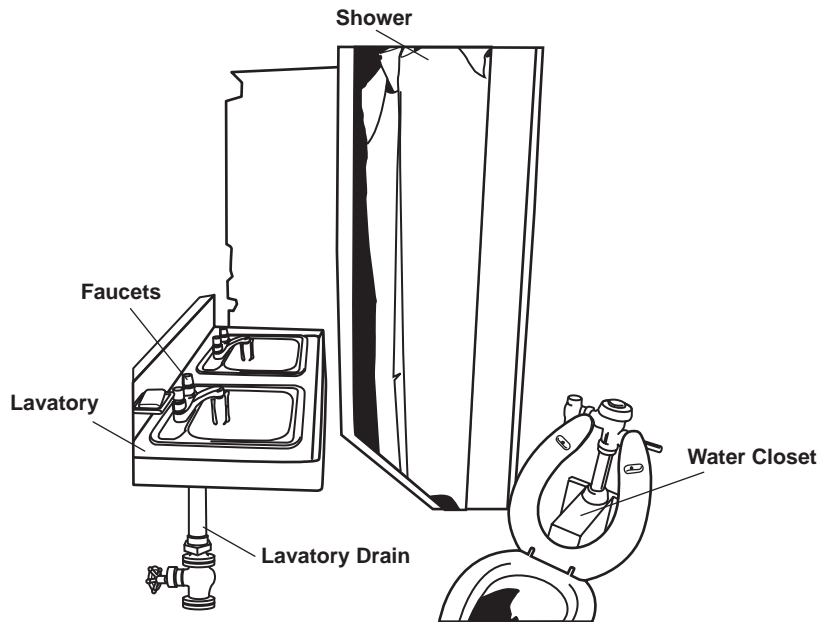
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
57	After	0.2	Life Rings	Inspect for damage and proper marking. Check that the marker light functions when the casing is turned upright.	Life ring damaged. Marker light is inoperable



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
58	After	1.0	PIPING SYSTEMS  Sanitary Spaces	Visually inspect all faucets on lavatories and showers for leaks. Inspect all water closets for leaks and stoppage. Inspect shower and lavatory drains to ensure that they are unstopped. If Class III leakage is observed, or if drains or commodes are stopped, refer to supervisor and to unit maintenance.	Class III leaks from the sewage system.

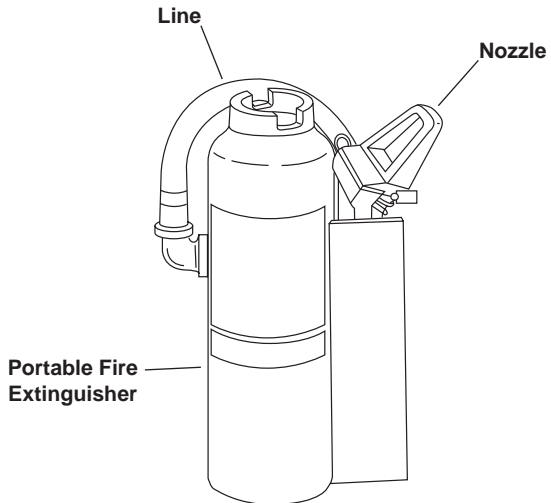
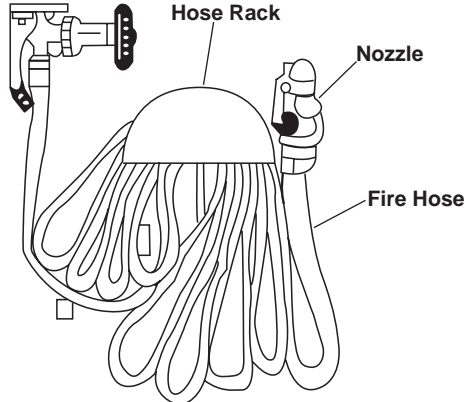


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
59	After	0.2	<p>FIRE DETECTION, SUPPRESSION, AND ALARM SYSTEMS</p> <p>Fire Alarm Pull Station</p>	<p>Inspect box and pull handles for damage. Document all defects and discrepancies, and refer to unit maintenance.</p> <div> </div>	<p>Damage or condition exists fire alarm pull station inoperable.</p>
60	After		<p>Thermal Heat Detectors and Ionization Smoke Detectors</p>	<p>Inspect thermal heat detectors and ionization smoke detectors for damage.</p> <div> </div>	<p>Damage or condition that makes the detector inoperable.</p>

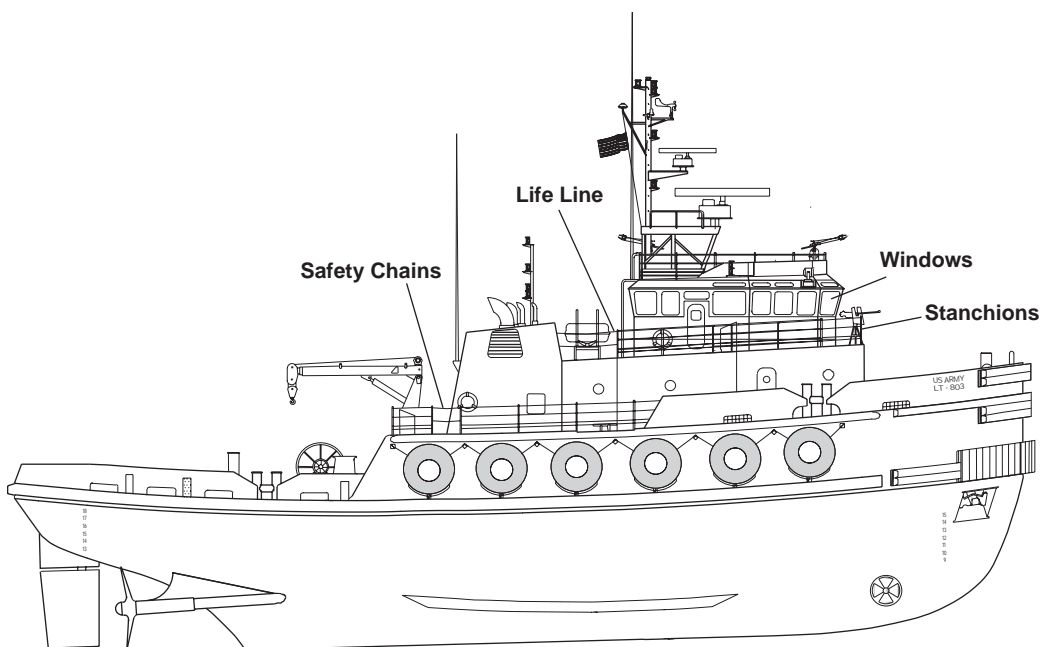
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
61	After	2.0	<p>FIRE STATIONS</p> <p>Hose and Connection</p>	<p style="text-align: center;"><b>WARNING</b></p> <p><b>During inspections, immediately report any defects to your supervisor and correct without delay, or refer to unit maintenance.</b></p> <p>a. Inspect the fire hose in the hose rack for tears, fraying, or cuts.</p> <p>b. Check hose connections for tightness.</p>	<p>Hose is unserviceable.</p> <p>Connections will not attach properly.</p>
62	After	0.7	Nozzle	<p>Check nozzle and nozzle handle for proper operation.</p>	<p>Nozzle is unserviceable.</p>
63	After	0.2	<p>PORTABLE FIRE EXTINGUISHERS</p>	<p>a. Inspect for tight mounting, full charge, corroded nozzles, and closed valves.</p> <p>b. Verify that certification information is correct and that the seals have not been tampered with. Direct particular attention to extinguisher lines and nozzles in the engine room, checking damage.</p>	<p>Extinguisher discharged or damaged.</p> <p>Extinguisher is damaged, the seal is broken, and/or the certification is out of date.</p>



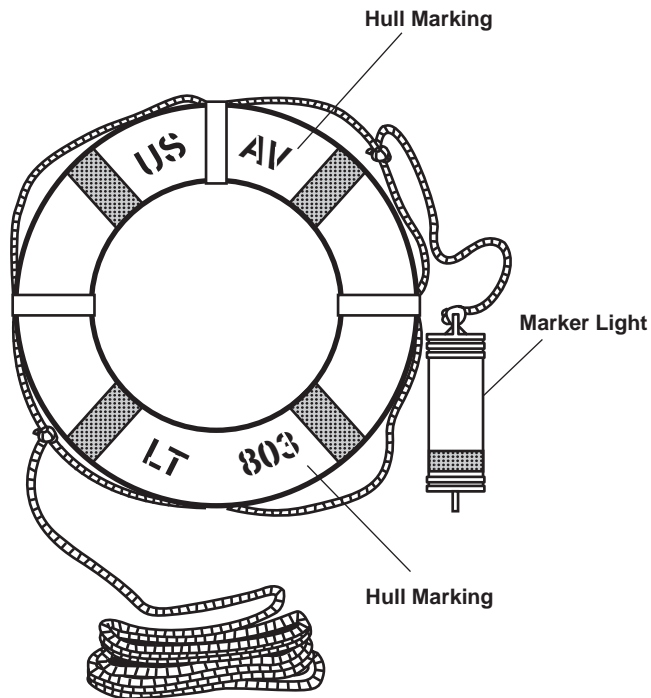
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
64	Weekly	20.0	ENTIRE VESSEL GENERAL VESSEL CLEANLINESS	Inspect glass, frames, and brackets for damage. Clean all windows, vents and ports, and inspect the entire vessel for cleanliness.	
65	Weekly	0.5	LIFE LINES AND STANCHIONS Life Lines and Stanchions	Ensure that life lines are in good condition, and are secured in place. Visually inspect safety chains for wear and corrosion.	
66	Weekly	0.2	Safety Chains	Ensure that safety chains are utilized where required.	



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
67	Weekly	0.2	LIFE RINGS	Inspect for damage and proper marking. Check that the marker light functions when the casing is turned upright.	

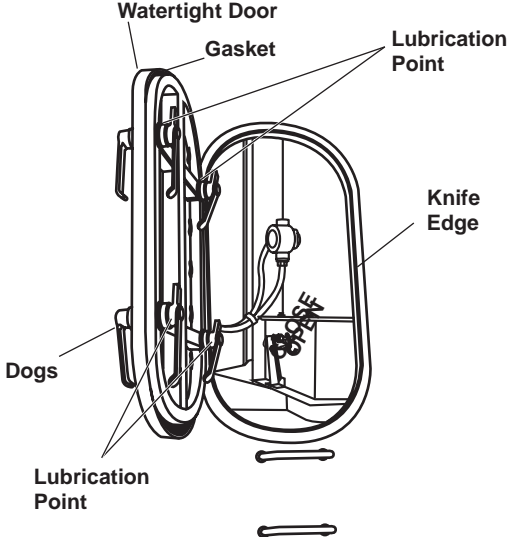
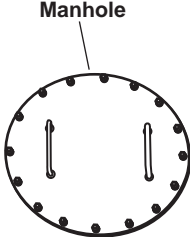


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
68	Weekly	0.2	<p>FIRE DETECTION, SUPPRESSION, AND ALARM SYSTEMS</p> <p>Fire Alarm Pull Station</p>	<p>Inspect box and pull handles for damage. Document all defects and discrepancies, and refer to unit maintenance.</p> <div> </div>	<p>Damage or condition exists fire alarm pull station inoperable.</p>
69	Weekly	0.2	<p>PORTABLE FIRE EXTINGUISHERS</p>	<p>a. Inspect for tight mounting, full charge, corroded nozzles, and closed valves.</p> <p>b. Verify that certification information is correct and that the seals have not been tampered with. Direct particular attention to extinguisher lines and nozzles in the engine room, checking damage.</p> <div> </div>	<p>Extinguisher discharged or damaged.</p> <p>Extinguisher is damaged, the seal is broken, and/or the certification is out of date.</p>



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
70	Weekly	0.5	WATERTIGHT DOORS  Overall Condition	Inspect for proper installation, and check for missing and/or defective fasteners.	
71	Weekly	1.5	Gaskets	<p>Check to ensure that the gaskets properly seal. Perform chalk test. Chalk mark the knife edge. Wipe gasket clean and close the watertight door.</p> 	Watertight integrity or operational capability is impaired.
72	Weekly	0.5	MANHOLES  Overall Condition	Inspect for proper installation, and check for missing and/or defective fasteners.	
73	Weekly	0.5	Gaskets	<p>Check to ensure that the gaskets properly seal.</p> 	Watertight integrity or operational capability is impaired.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
74	Weekly	0.5	HATCHES Overall Condition	Inspect for proper installation, and check for missing and/or defective fasteners.	
74	Weekly	2.0	Gaskets	Check to ensure that the gaskets properly seal. Perform chalk test. Chalk mark the knife edge. Wipe the gasket clean and close the hatch.	Watertight integrity or operational capability is impaired.

The diagram shows a perspective view of a hatch assembly. The hatch is open, revealing the internal components. Labels with leader lines point to the following parts: 'Hatch' (the top cover), 'Gasket' (the seal on the inner edge of the hatch), 'Quick Acting Dog' (a locking mechanism on the inner edge), and 'Knife Edge' (the bottom edge of the hatch opening).

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
76	Weekly	0.5	SCUTTLES Overall Condition	Inspect for proper installation, and check for missing and/or defective fasteners.	
77	Weekly	1.0	Gaskets	Check to ensure that the gaskets properly seal. Perform chalk test. Chalk mark knife edge. Wipe the gasket clean and close the scuttle.	Watertight integrity or operational capability is impaired.

The diagram shows a cross-section of a scuttle assembly. A circular cover is hinged to a rectangular base. The cover has a 'Quick Acting Dog' mechanism on its top edge. A 'Gasket' is located between the cover and the base. The 'Knife Edge' is the point where the cover meets the base. The entire assembly is labeled as the 'Scuttle'.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
78	Weekly	0.5	WATERTIGHT WINDOWS (PORTHOLES)  Overall Condition	Inspect for proper installation, and check for missing and/or defective fasteners.	
79	Weekly	1.0	Gaskets	Check to ensure that the gaskets properly seal. Perform chalk test. Chalk mark the knife edge. Wipe the gasket clean and close the watertight window (porthole).	Watertight integrity or operational capability is impaired.

The diagram shows a porthole assembly in two states. On the left, the circular 'Cover' is shown detached from the main frame. On the right, the porthole is closed, showing the 'Hinge' mechanism at the top, the 'Gasket' around the inner edge, the 'Dog' (locking mechanism) on the right side, and a 'Stud' at the bottom. The main frame has a multi-layered structure.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
80	Weekly	1.0	<p>SOUND POWERED TELEPHONES</p> <p>Head Set-Chest Set</p> <p>Wiring Connections</p>	<p>Visually inspect head set connections to the chest set for frayed wiring or loose connections.</p>	<p>Any part of this system fails to operate.</p>
81	Weekly	2.0	<p>Operation</p>	<p>Check the two-way voice capability of each headset. Select another station on the system and conduct a two-way conversation. Transmission and receptions should be clear, undistorted, and easily understood.</p>	

The diagram shows a headset with two ear cups and a microphone boom. A chest set is connected to the headset via a neck strap and wiring. The chest set includes a pushbutton and a jack plug. Labels point to the Headset, Ear Cups, Mouth Piece, Pushbutton, Chest Set, Wiring, Neck Strap, and Jack Plug.

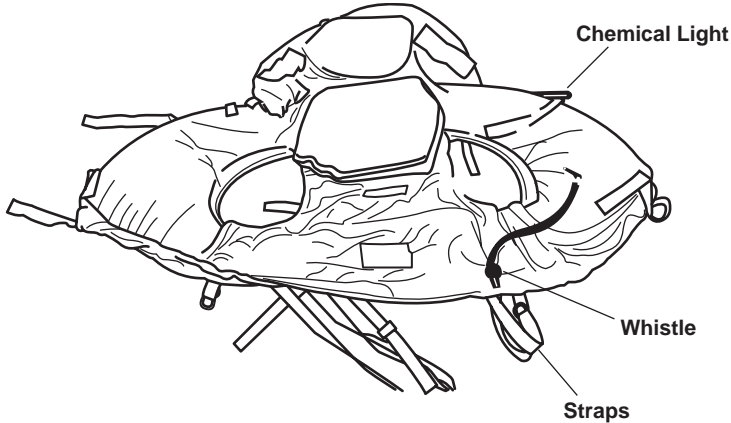
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
82	Weekly	0.5	Exterior Handsets Wiring	Visually inspect the handset and wiring for loose connections. Tighten as necessary.	
83	Weekly	0.5	Exterior	Visually inspect exterior for damage, water accumulation, or dirt buildup. Clean using a soft, clean cloth.	

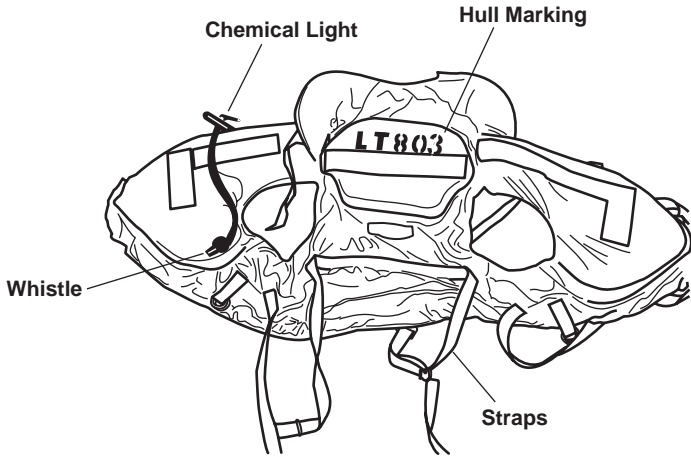
The diagram shows a perspective view of an open rectangular enclosure. The left door is swung open to the left, revealing a square cutout. The interior of the enclosure contains a handset with a coiled cord at the bottom. Above the handset, there is a rotary switch and some wiring components. Labels with leader lines point to the 'Exterior Handset' (the enclosure), the 'Rotary Switch', the 'Handset', and the 'Wiring'.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
84	Monthly	1.3	<p>LIFESAVING EQUIPMENT</p> <p>LIFE JACKETS</p> <p>Life Jacket Condition</p>	<p>Inspect jackets for rips, oil stains, broken straps, fiber deterioration, and hull marking of vessel. Ensure a sufficient number onboard for passengers and crew.</p>	<p>Life jackets are unserviceable.</p>
85	Monthly	0.3	<p>Life Jacket Light and Whistle</p>	<p>Check that the chemical light is attached to the life jacket, that the case is not damaged, and that the expiration date has not passed. Check that the whistle is attached and not damaged.</p>	<p>Chemical light is missing or case is damaged. Whistle is missing or damaged.</p>


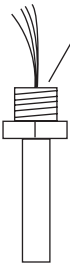
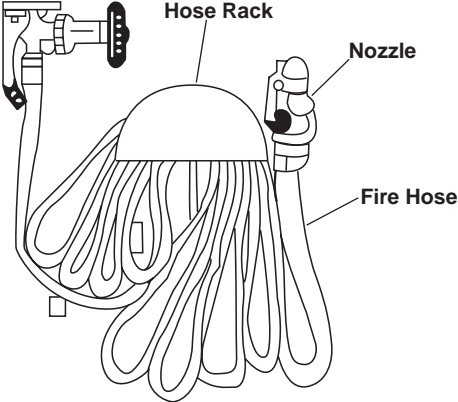


The diagram shows a top-down view of a life jacket. A rectangular case labeled 'Chemical Light' is attached to the front. A whistle is attached to the side. Several straps are visible across the jacket.



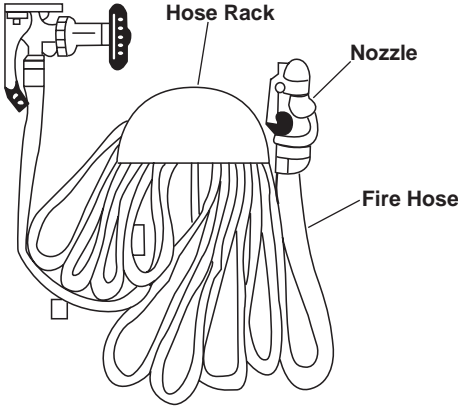
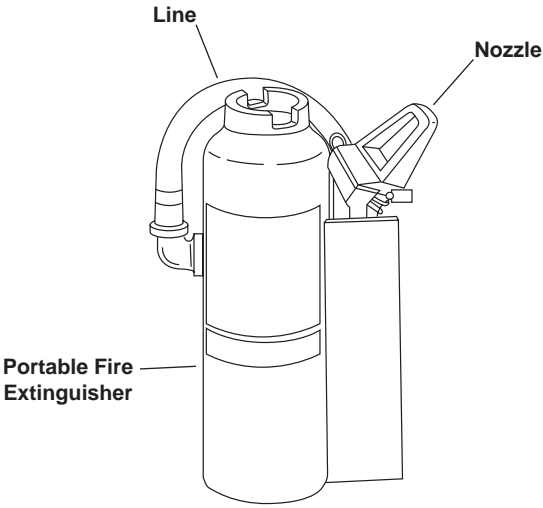
The diagram shows a top-down view of a life jacket. A rectangular case labeled 'Chemical Light' is attached to the front. A label with the hull marking 'LT803' is visible on the front. A whistle is attached to the side. Several straps are visible across the jacket.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
86	Monthly	2.0	<p>FIRE DETECTION, SUPPRESSION, AND ALARM SYSTEMS</p> <p>Thermal Heat Detectors and Ionization Smoke Detectors</p>	<p>Inspect thermal heat detectors and ionization smoke detectors for damage.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Ionization Smoke Detector</p> </div> <div style="text-align: center;">  <p>Thermal Heat Detector</p> </div> </div> <p>FIRE STATIONS</p> <div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><b>WARNING</b></p> </div> <p><b>During inspections, immediately report any defects to your supervisor and correct without delay, or refer to unit maintenance.</b></p>	<p>Damage or condition that makes the detector inoperable.</p>
87	Monthly	2.0	<p>Hose and Connection</p>	<p>a. Inspect the fire hose in the hose rack for tears, fraying, or cuts.</p> <div style="text-align: center;">  <p>Hose Rack</p> <p>Nozzle</p> <p>Fire Hose</p> </div>	<p>Hose is unserviceable.</p>

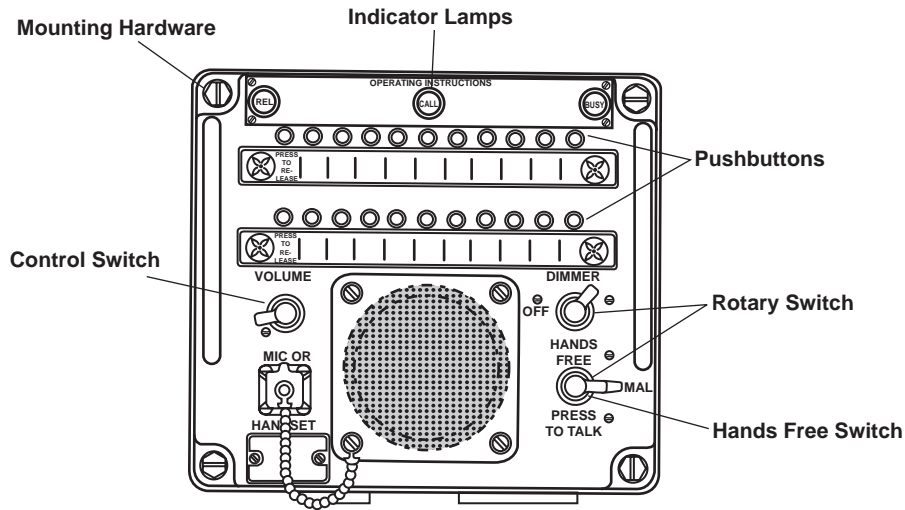


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
88	Monthly	0.7	Nozzle	<p>b. Check hose connections for tightness.</p> <p>Check nozzle and nozzle handle for proper operation.</p> 	<p>Connections will not attach properly.</p> <p>Nozzle is unserviceable.</p>
89	Monthly	4.0	<p>PORTABLE FIRE EXTINGUISHERS</p> <p>Weight Check</p>	<p>Weigh the portable fire extinguishers.</p> 	<p>Any extinguisher weighs less than the rated weight.</p>

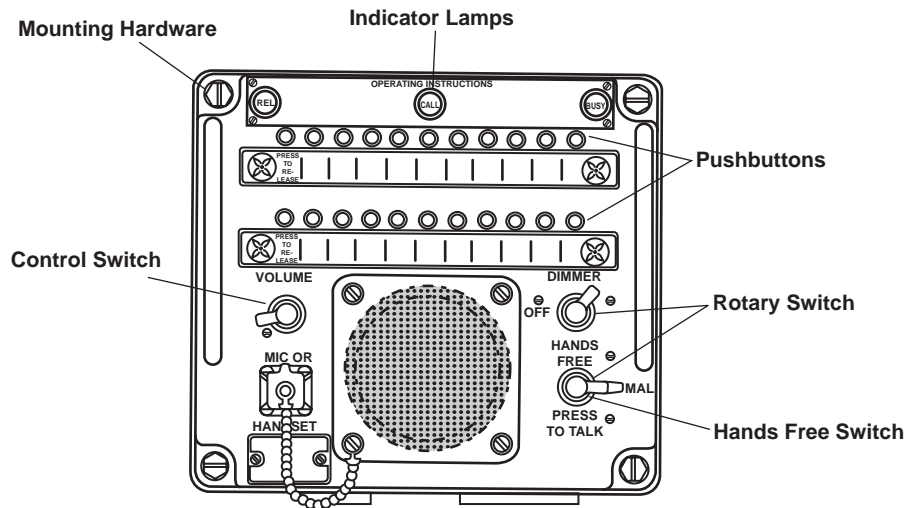
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
90	Monthly	0.3	INTERCOM SYSTEM Exterior	Visually inspect exterior for damage, water accumulation, or dirt buildup. Clean using a soft cloth.	
91	Monthly	0.3	Hardware	Inspect mounting hardware for tightness. Tighten as necessary.	
92	Monthly	0.3	Rotary switches	Check mechanical operation of each. Replace any worn or incorrectly operating parts.	Damaged or defective parts.
93	Monthly	0.5	Unit performance	Check the two-way voice capability of the master station. Select the other stations on the system and conduct a two-way conversation. Transmissions and receptions should be clear, undistorted and easily understood.	



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
94	Monthly	0.3	Indicator Lamps	Check all indicator lamps. The CALL lamps at the called station(s) should be lit. The REL lamp at the calling station should be lit. If the called station is busy, the BUSY light should be lit.	
95	Monthly	0.3	Control Switches	Check the control switches. Vary the position of the dimmer control switch and observe the intensity of the panel illumination. Vary the VOLUME control during reception, and verify that the intensity of received speech is controlled.	
96	Monthly	0.3	Hands Free	Check the hands free capability by operating hands free with another station in the system.	One or more unit malfunctions occur.
97	Monthly	0.3	Pushbuttons	Lubricate pushbutton switches lightly with silicone compound.	





**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
98	Monthly	1.0	SOUND POWERED TELEPHONES  Hardware	Inspect mounting hardware for tightness. Tighten as necessary.	
99	Monthly	0.5	Rotary Switches	Check mechanical operation for each rotary switch.	
100	Monthly	2.0	Operation	Check the two-way voice capability of each headset unit. Select other stations and conduct a two-way conversation.	

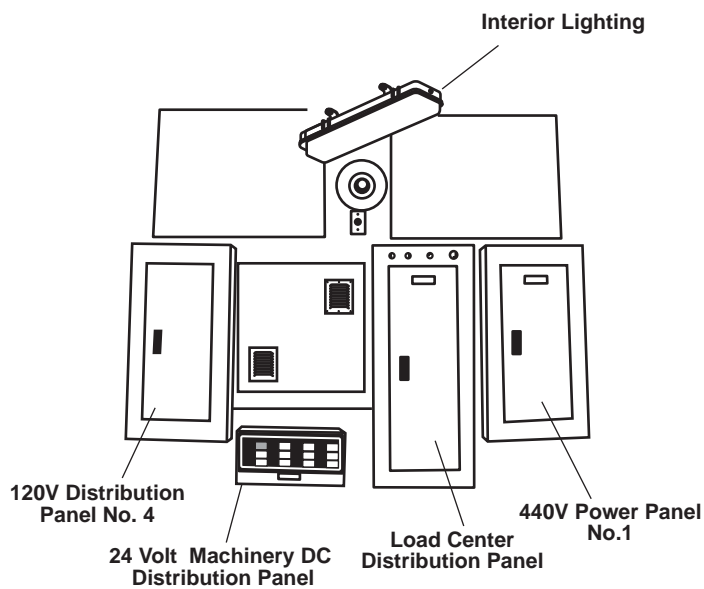
The diagram illustrates a communication system consisting of a headset and a chest set. The headset features a headband, two ear cups, and a microphone mouthpiece. A neck strap is attached to the headset. The chest set includes a pushbutton and a microphone. Both the headset and chest set are connected to a central wiring system, which terminates in a jack plug. Labels with leader lines identify the Headset, Ear Cups, Mouth Piece, Pushbutton, Chest Set, Wiring, Neck Strap, and Jack Plug.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
101	Monthly	8.0	POWER DISTRIBUTION SYSTEM (INCLUDING 24 VDC PANELS)  Wiring	<div style="text-align: center;">     </div> <p><b>Electrical wiring, panels, and components contain high voltages that can cause severe injury or death.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>Electrical wiring checks and services consist of visual inspections only. Observe all CAUTION and WARNING labels on electrical equipment.</p> <ol style="list-style-type: none"> <li>a. Visually inspect all accessible wiring, fuse terminal blocks, and connections.</li> <li>b. Ensure that hardware and connections are securely supported, clean and undamaged.</li> <li>c. Visually inspect cables and wiring insulations. Ensure that insulation is not worn, chafed, or damaged.</li> <li>d. Visually inspect conduits and shielding. Ensure that conduits are securely supported and undamaged. Ensure that all shielding is properly grounded and not frayed.</li> </ol>	If any part of this system fails.
102	Monthly	5.0	Panels	<ol style="list-style-type: none"> <li>a. Inspect power and lighting panels, motor controllers, and other electrical panels for secure mounting.</li> <li>b. Visually inspect panel surfaces for damage.</li> </ol>	Panel is not securely mounted.  Panel has damage that could affect its operation.
103	Monthly	0.5	Indicators and Ground Detection	Check the main and auxiliary switchboards for proper operation of indicators and ground detection circuits.	Indicators or ground detection circuits do not operate properly.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
104	Monthly	0.5	Interior and Exterior Lighting	Inspect lighting fixtures for secure mountings and obvious damage. Ensure that fixtures operate when turned on.	Emergency lighting fixtures do not operate when turned on.

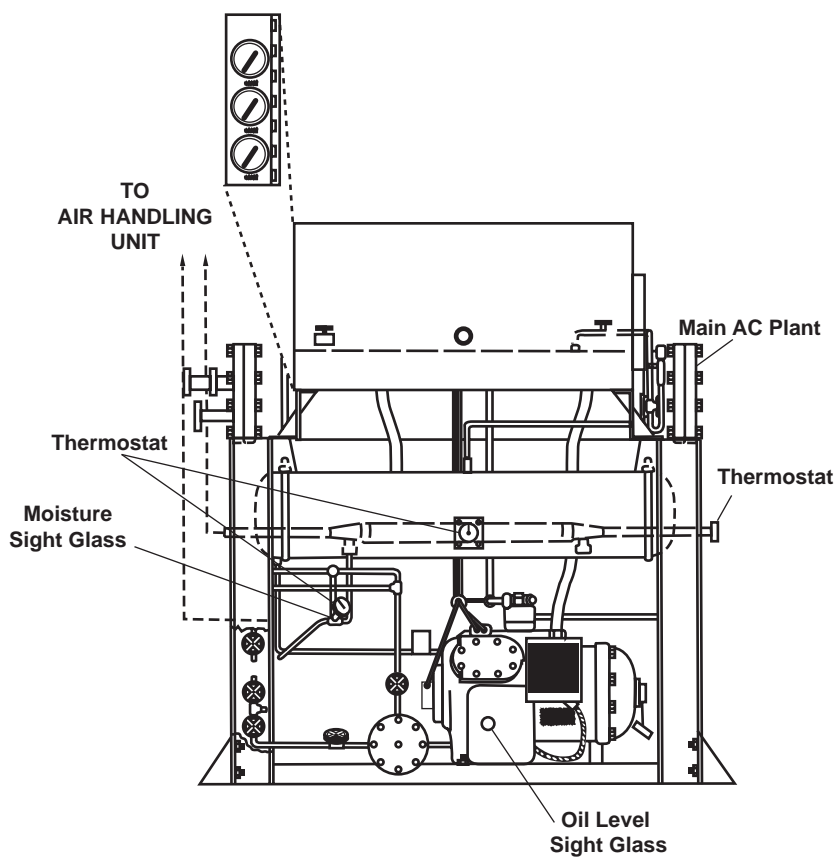


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
105	Monthly	2.0	HVAC EQUIPMENT  All Supply and Exhaust Fans	Check units for unusual noises or excessive vibration and that intake/exhaust screens are clean and free of debris.	If either fan fails to operate.

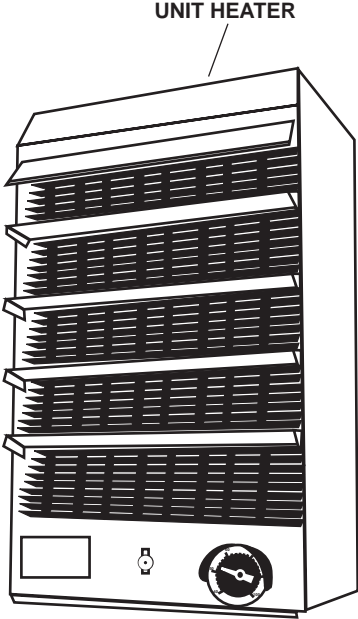
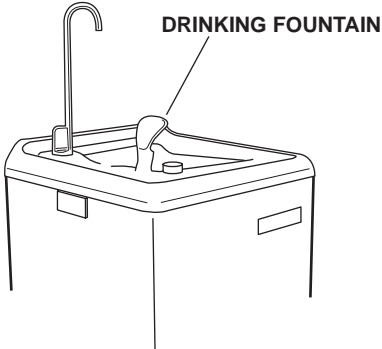
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
106	Monthly	0.3	Thermostats	Visually check thermostats for signs of wear, dirt buildup, damage, and corrosion.	
107	Monthly	0.3	Air Conditioner Units	Check units for operation.	If main deck AC/air handler fails to operate.

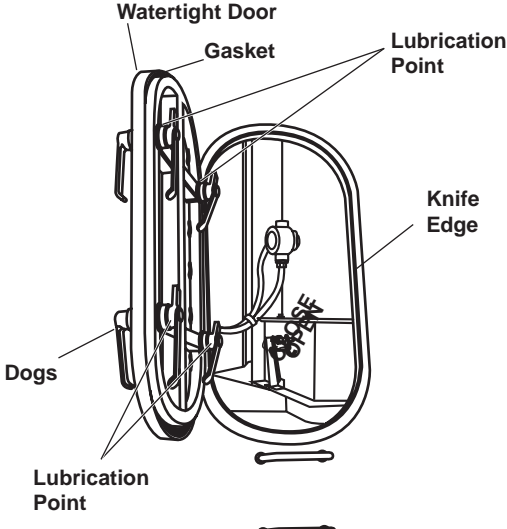
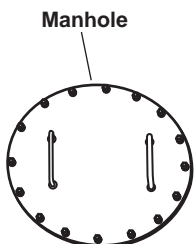




**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
108	Monthly	0.3	Unit Heaters	<p>Check that heater mountings are secure. Check for obvious damage. Ensure that heaters operate when they are turned on.</p> 	Heaters do not operate when turned on.
109	Monthly	0.5	<p>PIPING SYSTEMS</p> <p>Drinking Fountains</p>	<p>Visually inspect fountains for damage or for missing parts. Operate the water valve and observe drain flow.</p> 	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
110	Semiannual	2.0	WATERTIGHT DOORS Hinges and Dogs	Lubricate hinges, dogs, studs, and operating mechanisms as required with general purpose grease. Refer to table 2 for lubricant specifications.	
111	Semiannual	2.0	Gaskets	Clean gaskets and lubricate with silicone lubricant as required. Refer to table 2 for lubricant specifications.  	
112	Semiannual	2.0	MANHOLES Hinges and Dogs	Lubricate hinges, dogs, studs, and operating mechanisms as required with general purpose grease. Refer to table 2 for lubricant specifications.	
113	Semiannual	2.0	Gaskets	Clean gaskets and lubricate with silicone lubricant as required. Refer to table 2 for lubricant specifications.  	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
114	Semiannual	2.0	HATCHES Hinges and Dogs	Lubricate hinges, dogs, studs, and operating mechanisms as required with general purpose grease. Refer to table 2 for lubricant specifications.	
115	Semiannual	2.0	Gaskets	Clean gaskets and lubricate with silicone lubricant as required. Refer to table 2 for lubricant specifications.	

The diagram shows a cross-section of a hatch assembly. The hatch is shown in an open position. Labels with leader lines point to the following components: 'Hatch' (the lid), 'Gasket' (the seal on the inner edge of the lid), 'Quick Acting Dog' (the locking mechanism on the inner edge of the lid), and 'Knife Edge' (the contact point between the lid and the body of the container).

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
116	Semiannual	2.0	SCUTTLES Hinges and Dogs	Lubricate hinges, dogs, studs, and operating mechanisms as required with general purpose grease. Refer to table 2 for lubricant specifications.	
117	Semiannual	2.0	Gaskets	Clean gaskets and lubricate with silicone lubricant as required. Refer to table 2 for lubricant specifications.	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
118	Semiannual	2.0	WATERTIGHT WINDOWS (PORTHOLES)  Hinges and Dogs	Lubricate hinges, dogs, studs, and operating mechanisms as required with general purpose grease. Refer to table 2 for lubricant specifications.	
119	Semiannual	2.0	Gaskets	Clean gaskets and lubricate with silicone lubricant as required. Refer to table 2 for lubricant specifications.	

The diagram shows a circular porthole assembly. On the left is a separate circular 'Cover' with four lugs. On the right is the main porthole frame. A 'Hinge' connects the cover to the frame. A 'Gasket' is seated in a groove on the inner edge of the frame. A 'Dog' is a locking mechanism on the right side of the frame. A 'Stud' is a bolt-like component at the bottom of the frame.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
120	Annual	8.0	<p>FIRE STATIONS</p> <p>Fire Hose</p>	<div style="border: 2px solid black; padding: 5px; text-align: center; font-weight: bold; margin-bottom: 10px;">                     WARNING                 </div> <p>During inspections, immediately report any defects to your supervisor and correct without delay, or refer to unit maintenance.</p> <p>Conduct hydrostatic pressure test (FM 55-502).</p> <div style="text-align: center;"> </div>	Any hose fails.
121	Annual	4.0	Portable Fire Extinguishers	Turn in all portable fire extinguishers for certification or exchange.	Any portable fire extinguisher certification is expired.

**Table 2. Lubricant Types**

<b>Item</b>	<b>Method</b>	<b>Lubricant</b>	<b>Military Specification</b>	<b>Frequency of Application</b>
Watertight Door Hinges and Dogs	Pressure	Grease, General Purpose	MIL-G-18709	Semiannual
Watertight Door Gaskets	Brush	Silicone Lubricant		Semiannual
Watertight Hatch Hinges and Dogs	Pressure	Grease, General Purpose	MIL-G-18709	Semiannual
Watertight Hatch Gaskets	Brush	Silicone Lubricant		Semiannual
Scuttle Hinges and Dogs	Pressure	Grease, General Purpose	MIL-G-18709	Semiannual
Scuttle Gaskets	Brush	Silicone Lubricant		Semiannual
Manhole Hinges and Dogs	Pressure	Grease, General Purpose	MIL-G-18709	Semiannual
Manhole Gaskets	Brush	Silicone Lubricant		Semiannual
Watertight Windows (Portholes) Hinges and Dogs	Pressure	Grease, General Purpose	MIL-G-18709	Semiannual
Watertight Windows (Portholes) Gaskets	Brush	Silicone Lubricant		Semiannual


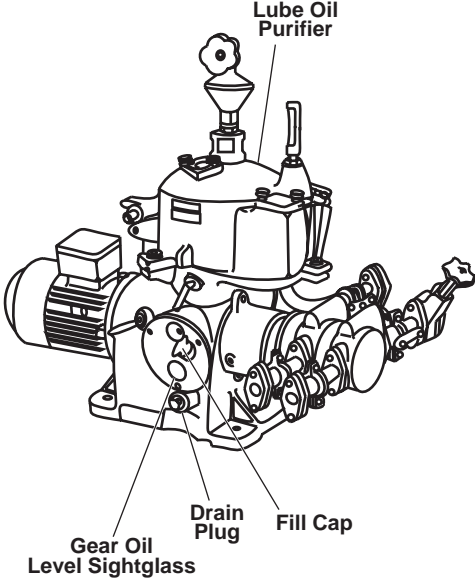
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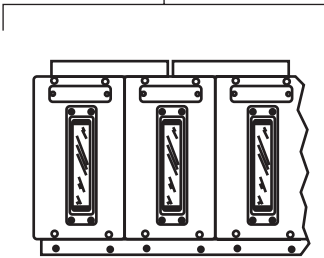
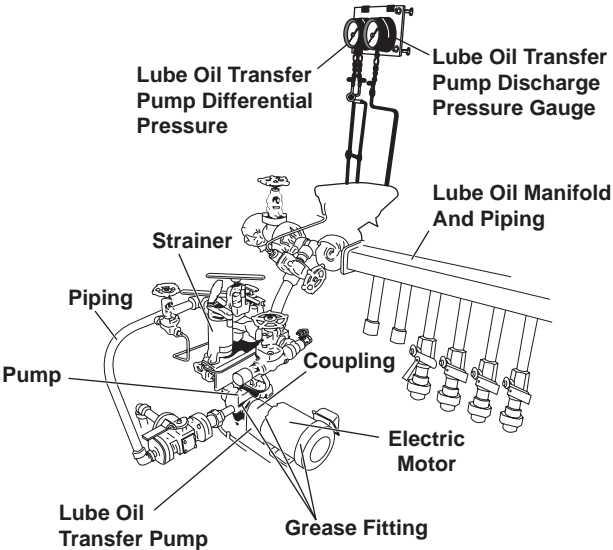


**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
ENGINE ROOM**

**Table 1. Preventive Maintenance Checks and Services Chart**

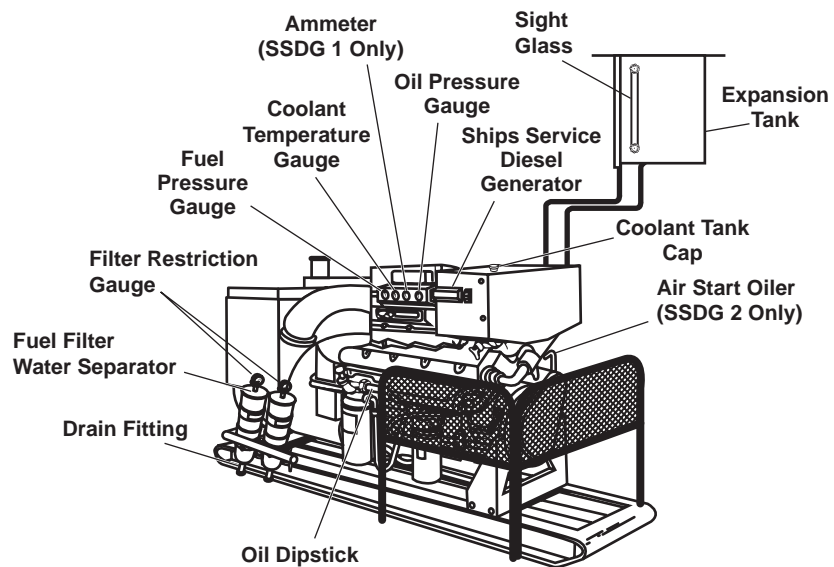
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	2.0	ENGINE ROOM AND INTERIOR STRUCTURES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p>Operate the ventilators to ensure that hull compartments and engine room are clear of fuel fumes. Operate the blowers for at least 5 minutes before starting any engine. Failure to comply can result in injury or death.</p> <p>Inspect the engine room and interior structures for leaks.</p>	Engine room is taking on water or Class III leaks.
2	Before	1.0	LUBE OIL PURIFIER	<p>a. Inspect the lubricating oil purifier for secure mountings and loose hardware.</p> <div style="text-align: center; margin: 10px 0;">  <b>CAUTION</b> </div> <p>During operation, oil level must not be below 1/2 full in sight glass or damage will result.</p> <p>b. Check that the oil level in the sight glass is at least 2/3 full before operating. Add oil (OE/HDO-30) as required through the fill cap.</p> <div style="text-align: center; margin-top: 20px;">  </div>	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.5	TANK LEVEL INDICATOR PANEL AND RECEIVERS	<p>Observe level at remote indicator. Compare reading with receiver panel in EOS. Report any differences to unit maintenance.</p> <p style="text-align: center;"><b>TLI Remote Indicator</b></p> 	
4	Before	0.9	LUBE OIL TRANSFER PUMP	<ol style="list-style-type: none"> <li>a. Visually inspect pump for leaks, loose connections, and damage.</li> <li>b. Check strainers for obstructions.</li> <li>c. Grease two motor fittings with 1 to 2 strokes of general purpose grease.</li> <li>d. Grease single pump fitting with 1 to 2 strokes of general purpose grease.</li> </ol>	Pump is damaged.
5	Before	2.0	LUBE OIL MANIFOLD AND PIPING	<p>Visually inspect manifold for cracks, leaks, and secure mounting. Visually inspect all lube oil system piping for leaks and damage.</p> 	Class III leaks or loose mounting.

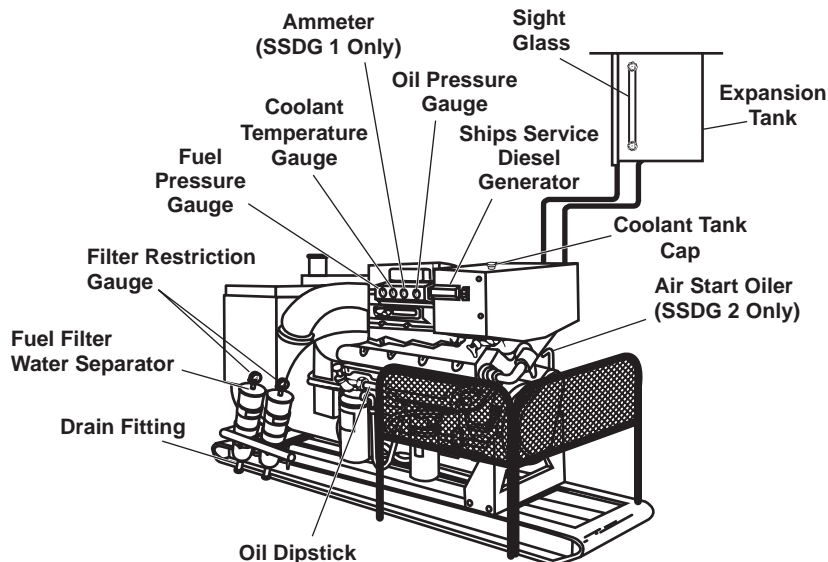
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.2	SHIPS SERVICE DIESEL GENERATORS	Check the engine and generator for debris, foreign objects, leaks, loose or broken fittings, guards, and components.	
7	Before	0.2	Expansion Tank	Check coolant level at the expansion tank sight glass. Coolant should be at or above the 1/2 full level.	Class III leaks
8	Before	0.1	Tank Cap	Inspect tank cap for signs of leakage.	Class III leaks
9	Before	0.2	Air Cleaner Indicator	Check that the indicator is in the GREEN range.	Indicator is in the RED range
10	Before	0.2	Oil Level (Engine Off)	With engine off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil as required (OE/HDO-30).	
11	Before	0.4	Fuel Filter/Water Separators	<p>a. Drain the engine fuel filter/water separator by opening the drain fitting and permitting the accumulated water and sediment drain into a suitable drain pan.</p> <p>b. Check that the filter restriction gauges are in the GREEN range.</p>	Reading in the RED range



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Before	0.1	Gauges	a. Check the condition of all the gauges.  b. Check that the fuel pressure gauge reads in the GREEN range.  c. Check that the water temperature gauge reads in or below the GREEN range.	Damaged or missing gauges  Reading in the RED range  Reading above the GREEN range
13	Before	0.2	Air Start Oiler (SSDG 2 Only)	Check that the air start oiler jar is at least 1/2 full. Add oil (OE/HDO-10) as required.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Before	1.0	SEWAGE DISCHARGE PUMPS	Visually inspect pump for leaks, loose connections and damage.	Class III leaks
15	Before	0.5	Piping and Valves	Inspect piping and valves for leaks.	Class III leaks
16	Before	0.5	Motor	a. Inspect motor for proper mounting and for exposed or frayed wiring.	Pump or wiring damaged
17	Before	0.5	Lubricate	b. Grease pump fitting with 1 to 2 strokes of general purpose grease.	
18	Before	0.2	CONTROL AIR DRYER	Check dryer for loose connections and damage.	
19	Before	0.2	CONTROL AIR RECEIVER	Check receiver for loose connections and damage.	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
20	Before	0.4	REDUCTION GEARS Oil Level	Oil level should be between ADD and FULL. Add oil (OE/HDO-40) as required.  <b>NOTE</b> This gauge is located inside No. 2 SHAFT BRAKE PANEL. The air compressor must be online (WP 0070 00, volume 1) prior to this check.	Oil level below ADD or above FULL.
21	Before	0.2	SHAFT BRAKE Air Pressure Gauge	Air pressure gauge should read 100 to 125 PSI (6.9 to 8.6 bar).	
22	Before	0.5	Shaft Brake Operation	Inspect shaft brake for proper operation. Engage and disengage the shaft brake at the shaft brake panel.	Brake inoperative

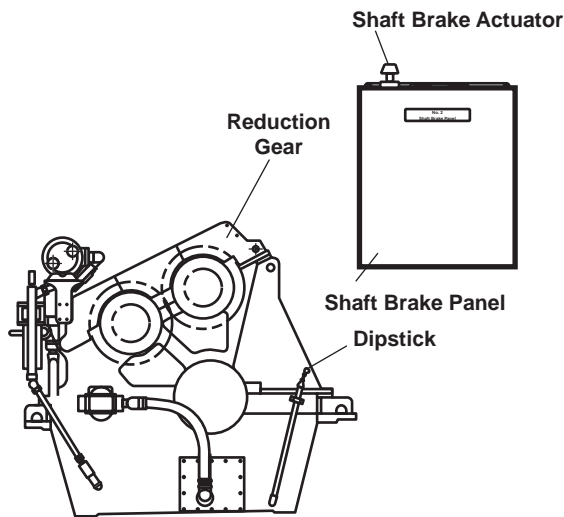
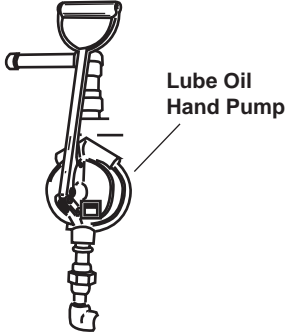
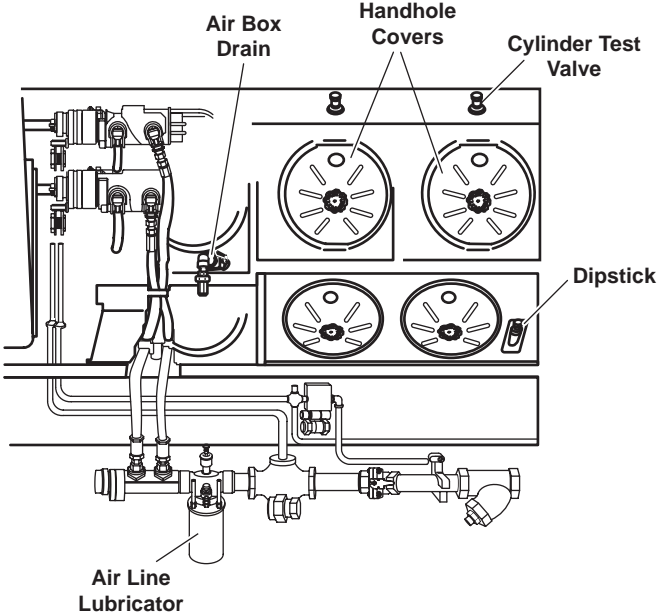


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
23	Before	0.4	LUBE OIL HAND PUMP	Inspect the pump for leaks, loose connections and damage. 	
24	Before	2.0	MAIN PROPULSION ENGINES	<ol style="list-style-type: none"> <li>Check the engine for debris, foreign objects, and loose or broken fittings.</li> <li>Inspect engine, fuel injection pumps, and cooling pumps for loose or damaged connections or mountings.</li> <li>Inspect fluid lines and joints for leaks.</li> <li>Check that the oil level in air line lubricator is over 1/2 full. Add oil (OE/HDO-10) as required.</li> <li>Check the oil level. Oil level be between the LOW and FULL marks. Add oil (MOBILGARD 450) as required.</li> </ol> 	Class III leaks

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p>f. Press the CONTROL POWER ON switch and verify that ENGINE RPM reads 000.</p> <p>g. Press the ALARM TEST switch and verify that the siren sounds, the blue rotating beacon is activated and the following warning lights are illuminated:                      LUBE OIL PRESSURE                      LUBE OIL LEVEL                      OVERSPEED TRIPPED                      LOW TURBO OIL PRESSURE                      CRANKCASE PRESSURE                      WATER LEVEL                      HOT ENGINE                      HIGH OIL TEMPERATURE</p> <p style="text-align: center;"><b>NOTE</b></p> <p>The air compressor must be online (WP 0070 00, volume 1) prior to this check.</p> <p>h. Check that the starting air pressure gauge reads 125 PSI (8.62 bar).</p>	<p>Any warning light is not illuminated, siren does not sound, or blue rotating beacon does not activate</p>

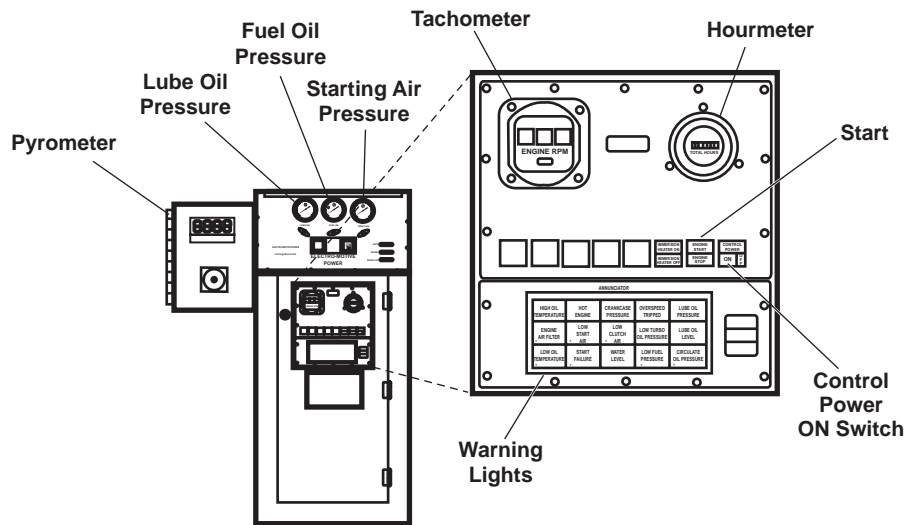
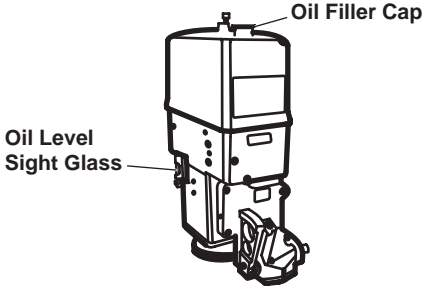
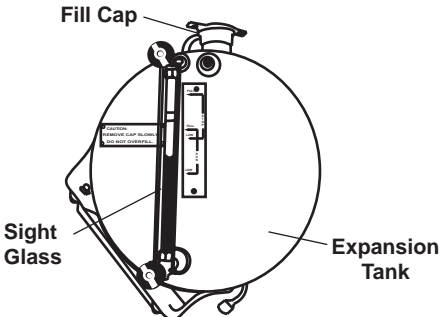
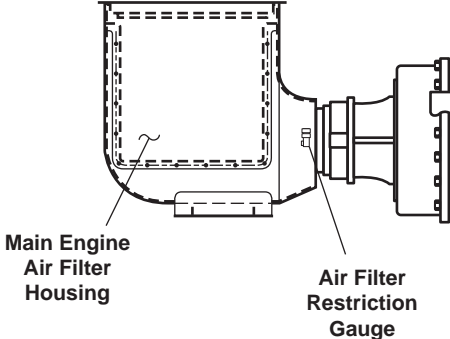
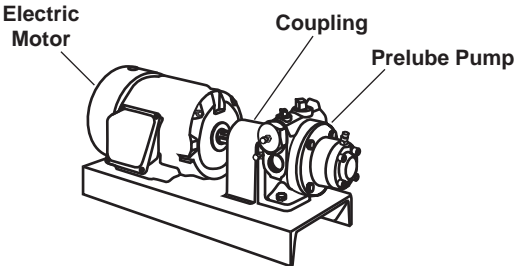




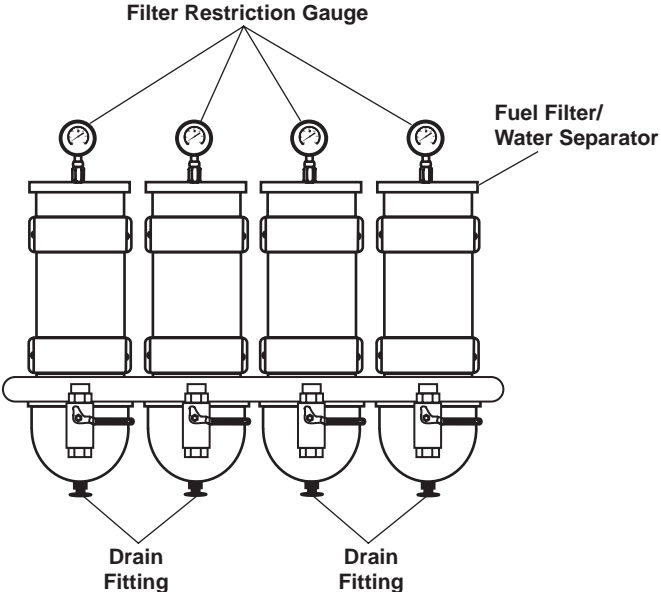
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p>i. Check the governor oil level in sight glass. Governor oil level should be at least 1/2 full in sight glass. Add oil (OE/HDO-10) through the oil fill cap as required.</p> <p>j. Check the cooling system coolant level at the expansion tank. Add coolant as required (50/50 mix of antifreeze and water).</p> <p>k. Check the fuel oil system for leaks.</p> <p>l. Check engine that the air filter indicator is in the GREEN range.</p>	<p>Class III leaks</p> <p>Air filter indicator is in the RED range</p>
25	Before	0.4	<p>PRELUBE PUMPS</p> 	<p>Inspect pump for leaks, loose connections, and damage. Service as necessary.</p> 	<p>Pump is defective.</p> 

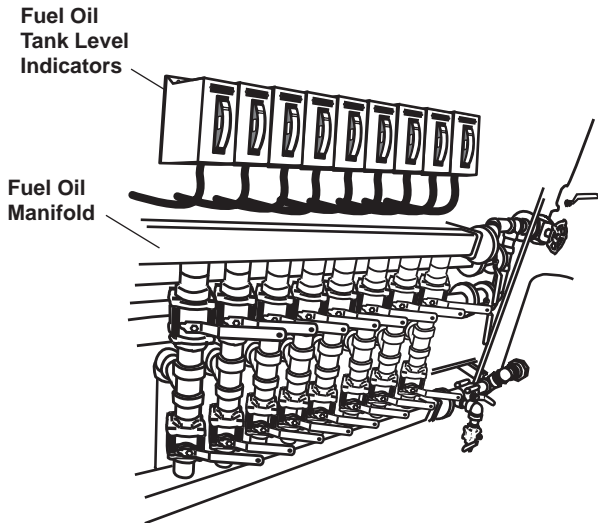
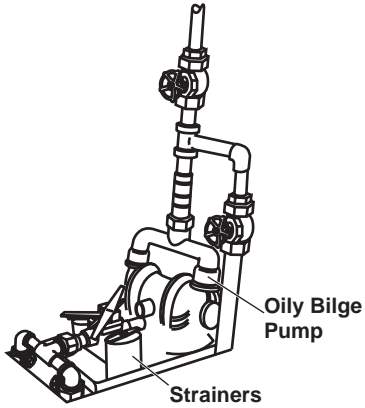
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
26	Before	0.9	FUEL OIL TRANSFER PUMPS	<p>a. Visually inspect pumps for leaks, loose connections, and damage.</p> <p>b. Grease two motor fittings with 1 to 2 strokes of general purpose grease.</p> <p>c. Grease pump fitting with 1 to 2 strokes of general purpose grease.</p> <div> </div>	Pumps are defective.
27	Before	0.5	FUEL FILTER/WATER SEPARATOR Exterior	<p>Visually inspect exterior for obvious damage or leaks.</p> <div> </div>	Class III leaks.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
28	Before	0.5	Sump	<div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Diesel fuel is flammable and diesel fuel vapors can be explosive. Make sure all work is performed in a well ventilated area. Keep sparks, open flame, and excessive heat away from the work area. Failure to comply with this precaution can result in death or serious injury.</b></p> <p>Check for water and/or solid contaminants in the bowl. Drain the bowl by opening the drain fitting and allowing the water and contaminants to drain into a suitable drain pan.</p>	
29	Before	0.5	FUEL OIL DAY TANKS	 <p style="text-align: center;">Filter Restriction Gauge</p> <p style="text-align: right;">Fuel Filter/ Water Separator</p> <p style="text-align: center;">Drain Fitting      Drain Fitting</p> <ol style="list-style-type: none"> <li>a. Check the amount of fuel in the day tanks. Sound the day tanks and compare the reading to the level indicated on the tank level indicator.</li> <li>b. Check for any evidence of fuel leakage.</li> <li>c. Transfer fuel (WP 0074 00, volume 1) as necessary to top off the tanks.</li> </ol>	Any fuel leakage

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
30	Before	2.0	FUEL OIL SYSTEM  	Visually inspect the fuel oil manifold, valves and piping for cracks, leaks, and secure mounting.	Any fuel leaks or unserviceable mounting.
31	Before	3.0	OILY BILGE SYSTEM  	<ol style="list-style-type: none"> <li>a. Visually inspect the oily bilge pump for leaks, loose connections and damage. Inspect the air filter.</li> <li>b. Visually inspect all piping and valves for leaks, loose connections and damage.</li> <li>c. Visually inspect the oily waste drain and storage tank for leaks, loose connections, and damage.</li> <li>d. Check tank level indicator and record level.</li> </ol>	Class III leaks.  Class III leaks, or unserviceable condition.  Class III leaks, or unserviceable condition

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

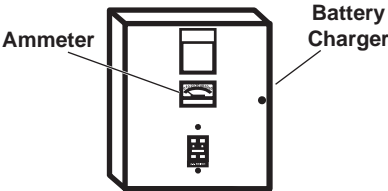
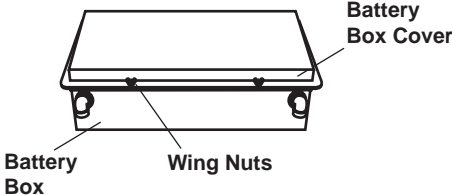
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
32	Before	1.0	BATTERY CHARGERS (SSDG 1, MACHINERY DC CONTROL, ROWPU)	<p>a. At 120V emergency distribution panel No. 1, turn ON the SSDG No. 1 BATTERY CHARGER. and MACHINERY DC CONTROL BATTERY CHARGER. circuit breakers.</p> <p>b. At 120V distribution panel No. 4, turn ON the ROWPU BATTERY CHARGER. circuit breaker.</p> <p>c. Check battery chargers for proper connections to battery.</p> <p style="text-align: center;">NOTE</p> <p>A high reading indicates that the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>d. Check the ammeter reading. The ammeter should read near 0 for a trickle charge. If the reading is above 3 AMPS, refer to unit maintenance.</p> <div style="text-align: center;">  </div>	Unit fails to operate and recharge the batteries
33	Before	0.2	BATTERY BOX	<p>Visually inspect battery box for obvious damage. Ensure that the vent is not obstructed.</p> <div style="text-align: center;">  </div>	Batteries not secured for operation

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
34	Before	1.0	BATTERIES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Do not smoke when observing battery electrolyte level. Batteries give off fumes that can explode. Electrolyte is an acid and can cause personal injury if it contacts skin or eyes. Wear approved goggles, gloves, and apron.</b></p> <p style="text-align: center;">NOTE</p> <p>Top cover of battery box must be removed to check batteries.</p> <ol style="list-style-type: none"> <li>a. Inspect batteries, terminals, connections, cables and vent caps for cleanliness and tightness.</li> <li>b. Clean or tighten terminal connections as required.</li> <li>c. Clean battery as required using a paste of baking soda and clear water. Rinse with clear water when finished.</li> <li>d. Check electrolyte level and check specific gravity of electrolyte with a hydrometer. Electrolyte level should be at the bottom of the split rings and specific gravity should be 1.265.</li> </ol>	Connections badly damaged or excessively loose

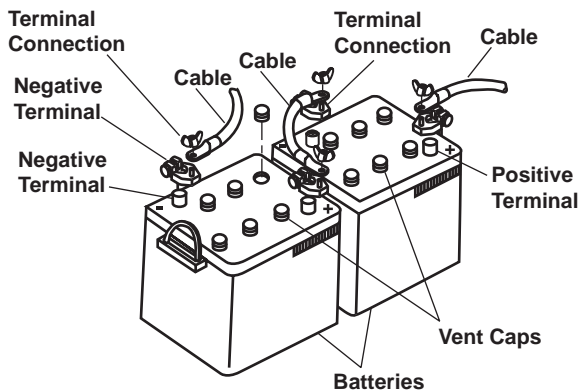

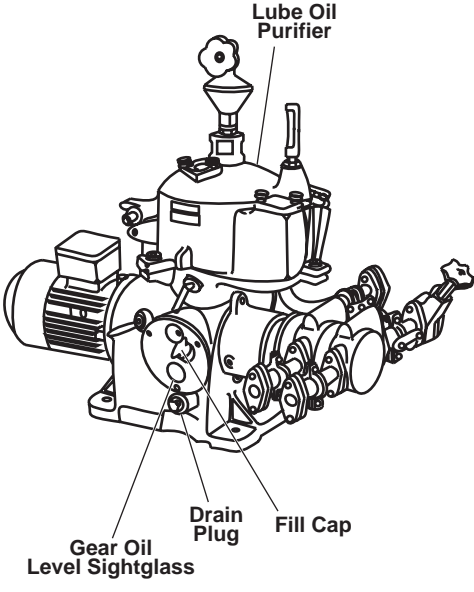
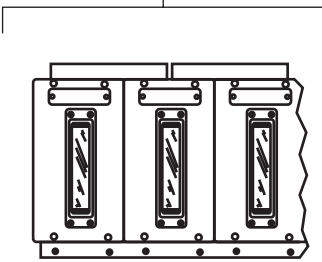
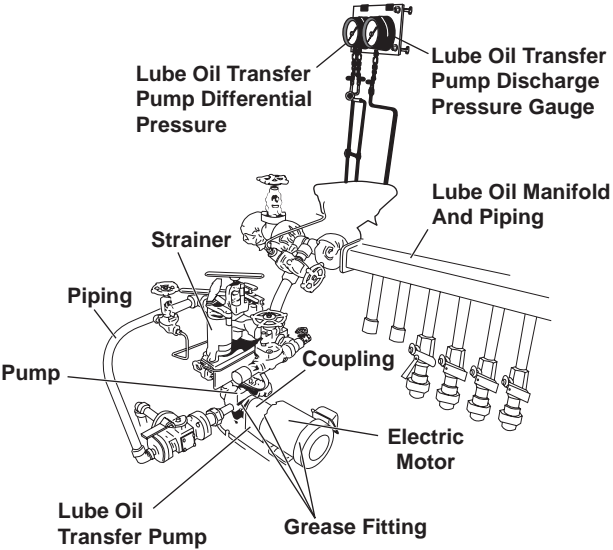


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
35	During	2.0	ENGINE ROOM AND INTERIOR STRUCTURES	<div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p>Operate the ventilators to ensure that hull compartments and engine room are clear of fuel fumes. Operate the blowers for at least 5 minutes before starting any engine. Failure to comply can result in injury or death.</p> <p>Inspect the engine room and interior structures for leaks.</p>	Engine room is taking on water or Class III leaks
36	During	1.0	LUBE OIL PURIFIER	<p>a. Inspect the lubricating oil purifier for secure mountings and loose fasteners.</p> <div style="text-align: center; margin: 10px 0;">  <b>CAUTION</b> </div> <p>During operation, oil level must not be below 1/2 full in sight glass or damage will result.</p> <p>b. Ensure that the oil level in the sight glass remains at least 1/2 full during operation. Add oil (OE/HDO-30) as required through the fill cap.</p> <div style="text-align: center; margin-top: 20px;">  </div>	

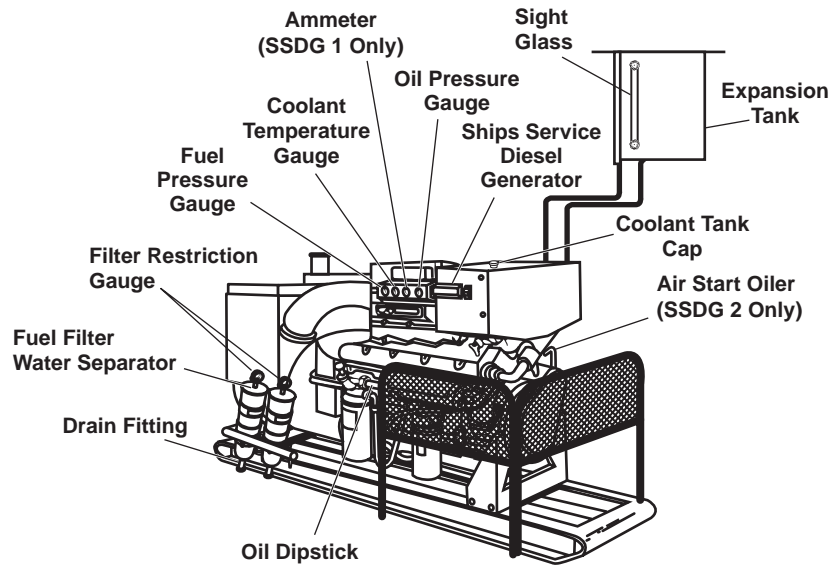
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
37	During	0.5	TANK LEVEL INDICATOR PANEL AND RECEIVERS	<p>Observe level at remote indicator. Compare reading with receiver panel in EOS. Report any differences to unit maintenance.</p> <p style="text-align: center;"><b>TLI Remote Indicator</b></p> 	
38	During	1.0	LUBE OIL TRANSFER PUMP	<ol style="list-style-type: none"> <li>a. Visually inspect pumps for leaks, loose connections, and damage.</li> <li>b. Check gauges for normal readings (30 PSI (2.07 bar)).</li> <li>c. Grease two motor fittings with 1 to 2 strokes of general purpose grease.</li> <li>d. Grease pump fitting with 1 to 2 strokes of general purpose grease.</li> </ol>	Class III leaks
39	During	2.0	LUBE OIL MANIFOLD AND PIPING	<p>Visually inspect manifold for cracks, leaks, and secure mounting. Visually inspect all lube oil system piping for leaks and damage.</p> 	Class III leaks or loose mounting



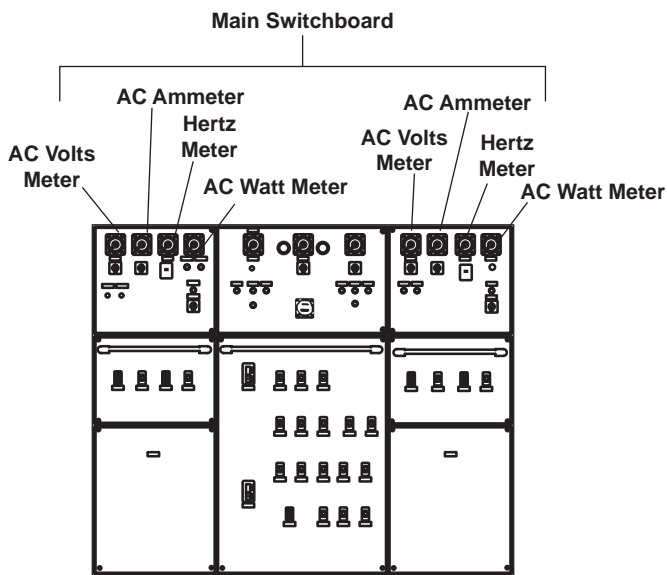
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
40	Duing	0.4	SHIPS SERVICE DIESEL GENERATORS	a. With engine running, check oil level on the dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (MIL-PRF-2104) as required.  b. Check the fuel pressure gauge. The gauge should read in the GREEN range.  c. Check the oil pressure gauge. The gauge should read in the GREEN range.  d. Check for unusual noises.  e. Check for fuel, oil, or coolant leaks.	Reading in RED range  Reading in the RED range  Unusual noises are heard  Class III leaks



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
41 42 43 44	During	0.2	Main Switchboard in EOS (SSDG 1 or SSDG 2 operating)	The meter should read 60 Hz.	Meter is inoperative
	During	0.2	Hertz Meters	Check that meter reading is free and proportional.	Meter is inoperative
	During	0.2	AC Ammeters	The meter should read 440 ±5.	Meter is inoperative
	During	0.2	AC Volts Meters	Check that meter reading is free and proportional.	Meter is inoperative

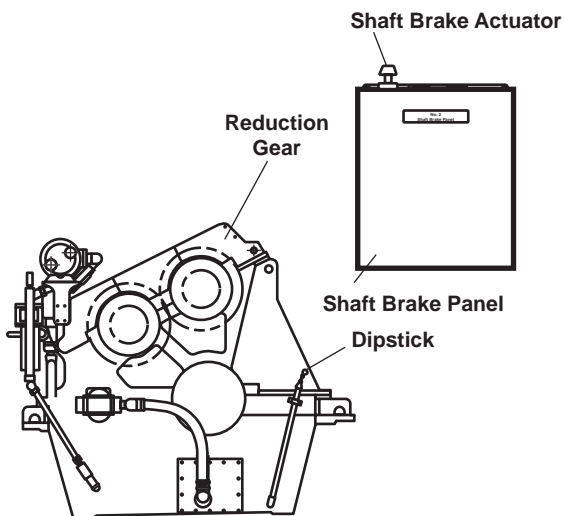


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
45	During	0.5	SEWAGE DISCHARGE PUMPS	Visually inspect pump for leaks, loose connections and damage, and service as necessary.	Class III leaks
46	During	0.5	Piping and Valves	Inspect piping and valves.	Class III leaks
47	During	0.5	Motor	Inspect motor for any unserviceable condition.	Pump inoperative
48	During	0.2	CONTROL AIR DRYER	Check dryer for loose connections and damage.	
49	During	0.2	CONTROL AIR RECEIVER	Check receiver for loose connections and damage.	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
50	During	0.2	REDUCTION GEARS Oil Level	Oil level should be between ADD and FULL. Add oil (OE/HDO-40) as required.  <b>NOTE</b> The gauge is located inside No. 2 SHAFT BRAKE PANEL	Oil level below ADD or above FULL
51	During	0.2	Gauges and Noise	a. Shaft brake pressure gauge should read 1200 to 1500 PSI (83 to 103 bar).  <b>NOTE</b> The gauge is located inside No. 2 SHAFT BRAKE PANEL  b. Air pressure gauge should read 100 to 125 PSI (6.9 to 8.6 bar).	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p>c. Lube oil pressure gauge should read at least 350 PSI (24.1 bar).</p> <p>d. Oil temperature gauge should read 120 to 150 °F (48.9 to 65.6 °C).</p> <p>e. Clutch oil pressure gauge should read 170 to 175 PSI (11.72 to 12.07 bar) with clutch disengaged and 350 to 360 PSI (24.13 to 24.82 bar) with clutch engaged.</p> <p>f. Observe reduction gear for excessive vibration or unusual noise during operation.</p>	<p>Reading below 350 PSI (24.1 bar)</p> <p>Reading not in range</p> <p>Reading not in range</p> <p>Excessive vibration or unusual noise.</p>
52	During	0.2	LUBE OIL HAND PUMP	<p>Inspect the pump for leaks, loose connections and damage.</p>	

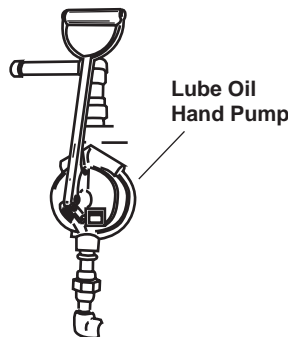
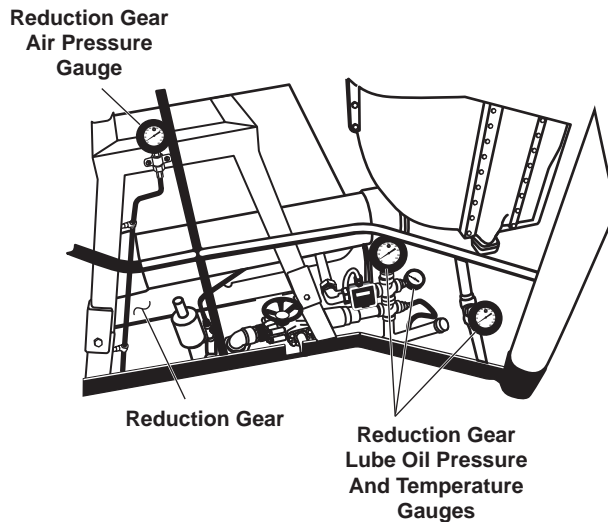
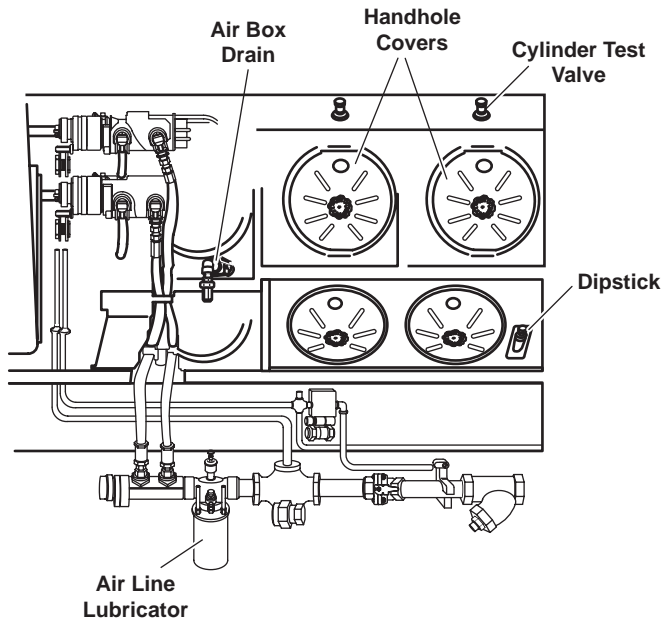
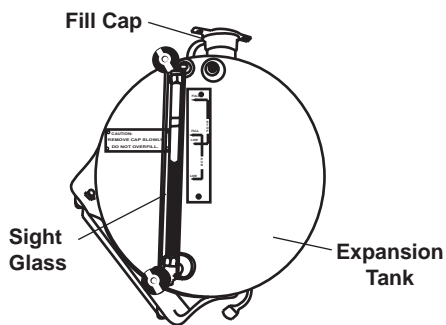
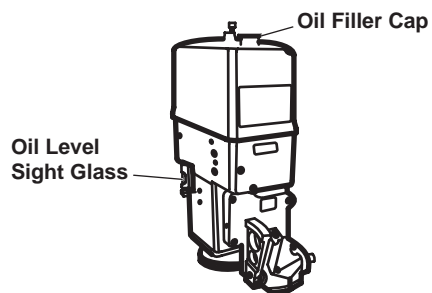


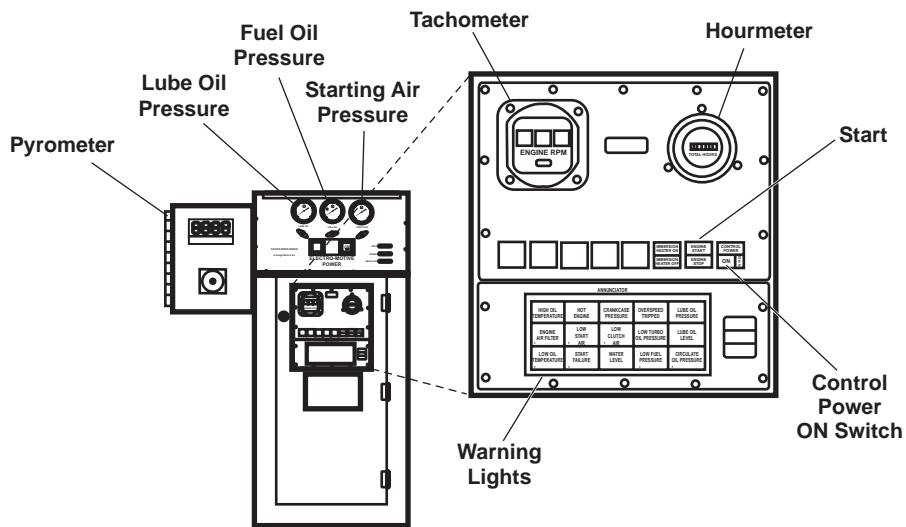
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
53	During	2.0	MAIN PROPULSION ENGINES	<p>a. Inspect engine, fuel system, and cooling system for loose or damaged connections or mountings.</p> <p>b. Inspect fluid lines and joints for leaks.</p> <p>c. Check the governor oil level in sight glass. Governor oil level should be at least 1/2 full in sight glass. Add oil (OE/HDO-10) as required.</p> <p>d. Check the oil level with the engine at idle speed and the engine HOT. Oil level should be between the LOW and FULL marks. Add oil (MOBILGARD 450) as required.</p> <p>e. Check the cooling system coolant level at the expansion tank. Add coolant (50/50 mix of antifreeze and water) as required.</p>	<p>Class III leaks</p> <p>Class III leaks</p>



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				<p>f. The tachometers on the control panel and at the remote stations should all read the same.</p> <p>g. The control panel should not display any warning lights.</p> <p>h. Check that lube oil pressure is not lower than 30 PSI (2.1 bar) at rated speed and not less than 14 PSI (0.9 bar) at idle.</p> <p>i. Check that the fuel oil pressure gauge is between 35 to 50 PSI (2.4 to 3.5 bar).</p> <p>j. Check the pyrometer for proper indication of temperature for the operating range of engine speed and load.</p> <p>k. Check that the air filter indicator is in the GREEN range.</p> <p>l. Check that the engine hour meter is operating.</p>	<p>Tachometer is inoperative</p> <p>Any warning light is illuminated</p> <p>Oil pressure is less than 30 PSI (2.1 bar) at rated speed or 14 PSI (0.9 bar) at idle</p> <p>Fuel pressure less than 35 (2.4 bar) or more than 50 PSI (3.5 bar)</p> <p>Air filter indicator is in the RED range</p>

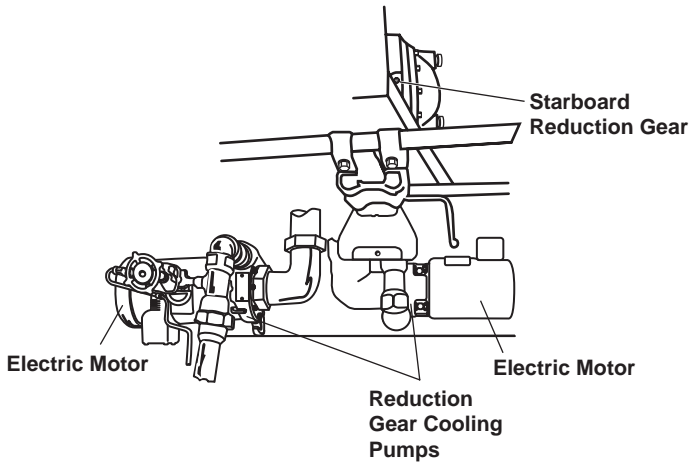


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

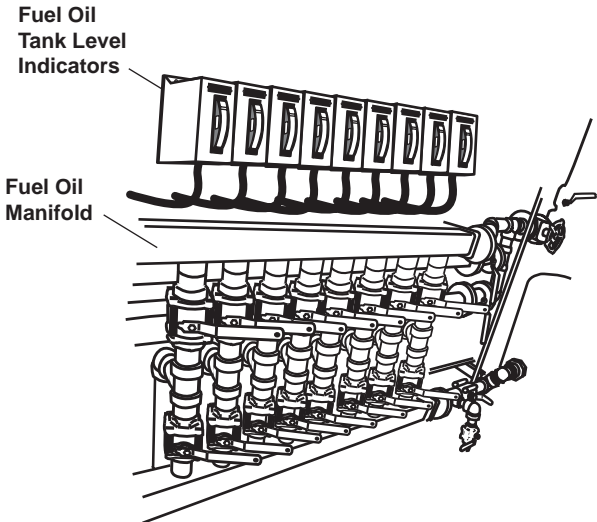
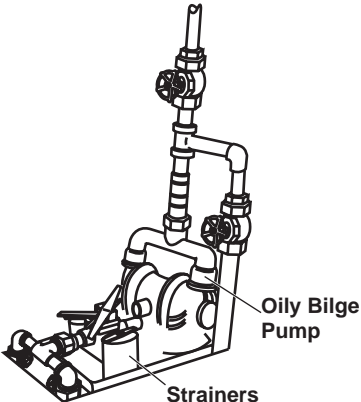
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
54	During	0.2	Cylinder Test Valves	Check cylinder test valves for leakage and tighten if required.	An exhaust gas leak exists.
55	During	0.2	Handhole Covers	Check handhole covers for leakage, and tighten if required.	
<p>NOTE</p> <p>If air box drains are kept closed, drain after every 4 hours of operation.</p>					
56	During	0.2	Air Box Drains	Check air box drains for proper operation and clean if necessary.	Drains do not operate.
57	During	0.2	Unusual Sounds	Check for unusual noises or sounds.	Any unusual noise or sound.
<p>A technical line drawing of an engine compartment. Labels with leader lines point to various parts: 'Air Box Drain' at the top left, 'Handhole Covers' pointing to two circular covers in the middle, 'Cylinder Test Valve' at the top right, 'Dipstick' pointing to a vertical rod on the right side, and 'Air Line Lubricator' pointing to a cylindrical component at the bottom left.</p>					
58	During	0.2	PRELUBE PUMP	Inspect pump for leaks, loose connections, and damage.	Pump is defective.
<p>A technical line drawing of a pre-lube pump assembly. Labels with leader lines point to the 'Electric Motor' on the left, the 'Coupling' in the middle, and the 'Pre-lube Pump' on the right.</p>					



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
59	During	0.3	PROPELLER SHAFTS	Check for unusual vibrations. Visually inspect for leaks, loose connections, and damage.	Shaft is misaligned or bent, or bearing is excessively worn.
60	During	1.0	REDUCTION GEAR COOLING PUMPS	Inspect reduction gear cooling pump for leaks, loose connections or loose hardware. Check gauges for a normal reading of approximately 30 PSI (2.1 bar).	Class III leaks
					
61	During	0.5	FUEL OIL DAY TANKS	<ol style="list-style-type: none"> <li>a. Check the amount of fuel in the day tanks. Sound the day tanks and compare the reading to the level indicated on the tank level indicator.</li> <li>b. Check for any evidence of fuel leakage.</li> <li>c. Transfer fuel (WP 0074 00, volume 1) as necessary to top off the tanks.</li> </ol>	Any fuel leakage

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
62	During	2.0	<p>FUEL OIL SYSTEM</p>  <p>Fuel Oil Tank Level Indicators</p> <p>Fuel Oil Manifold</p>	<p>Visually inspect the fuel oil manifold, valves and piping for cracks, leaks, and secure mounting.</p>	<p>Any fuel leaks or unserviceable mounting.</p>
63	During	1.0	<p>OILY BILGE SYSTEM</p> <p>Pump</p>	<p>Visually inspect pump for leaks, loose connections and damage. Inspect air filter.</p>	<p>Class III leaks.</p>
64	During	1.0	<p>Valves and Piping</p>	<p>Visually inspect all piping and valves for leaks, loose connections and damage.</p>	<p>Class III leaks, or unserviceable condition.</p>
65	During	1.0	<p>Oily Waste Drain and Storage Tank</p>	<p>Visually inspect the oily waste drain and storage tank for leaks, loose connections and damage.</p>  <p>Oily Bilge Pump</p> <p>Strainers</p>	<p>Class III leaks, or unserviceable condition.</p>

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
66	During	1.0	BATTERY CHARGERS (SSDG 1, MACHINERY DC CONTROL, ROWPU)	<p>a. At 120V emergency distribution panel No. 1, check that the SSDG No. 1 BATTERY CHARGER and MACHINERY DC CONTROL BATTERY CHARGER circuit breakers are set to ON.</p> <p>b. At 120V distribution panel No. 4, check that the ROWPU BATTERY CHARGER circuit breaker is set to ON.</p> <p>c. Check battery chargers for proper connections to battery.</p> <p style="text-align: center;">NOTE</p> <p>A high reading indicates that the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>d. Check the ammeter reading. The ammeter should read near 0 for a trickle charge. If the reading is above 3 AMPS, refer to unit maintenance.</p>	Unit fails to operate and recharge the batteries
67	After	0.3	LUBE OIL TRANSFER PUMP	Visually inspect pumps for leaks, loose connections, and damage.	Pumps are defective.

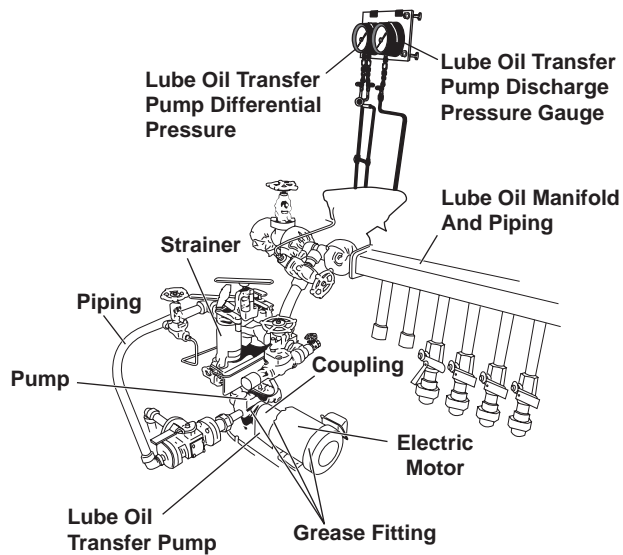
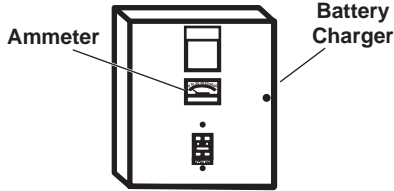
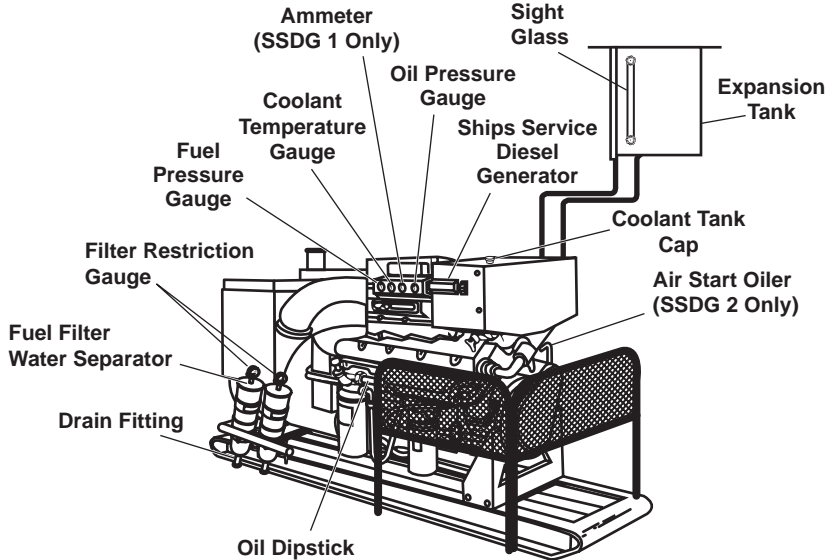
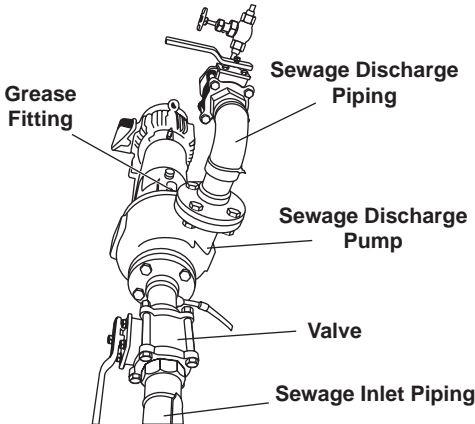
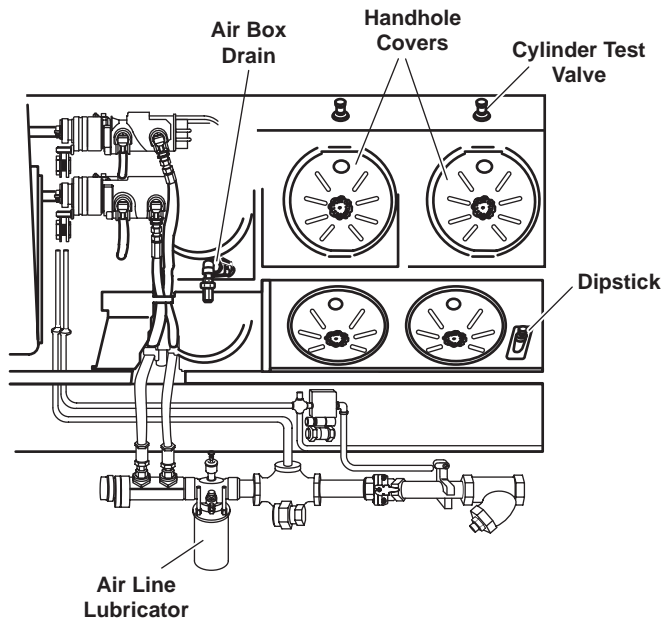


Table 1. Preventive Maintenance Checks and Services Chart (continued)

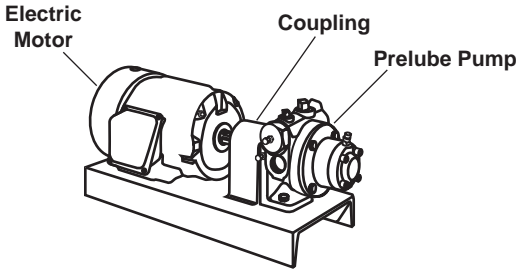
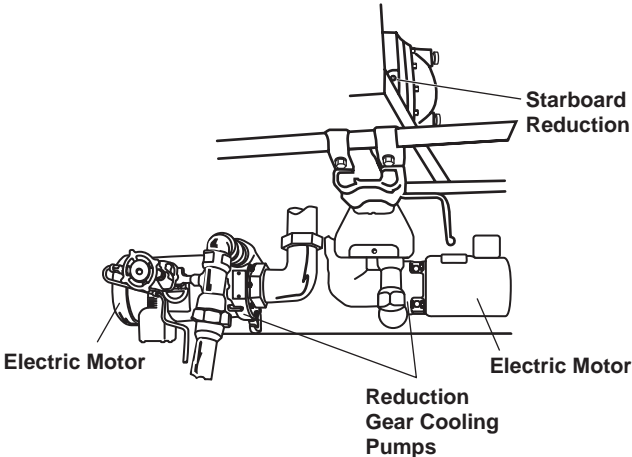
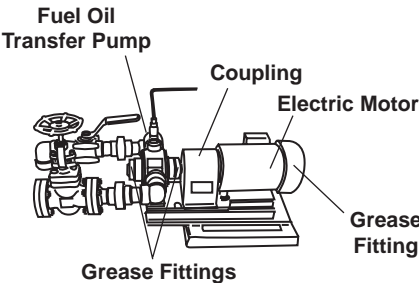
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
68	After	1.0	SHIPS SERVICE DIESEL GENERATORS	<p>a. Check for oil, fuel, or coolant leaks.</p> <p>b. Check that the air start oiler jar is at least 1/2 full. Refill with oil (OE/HDO-10) as required.</p>  <p>The diagram shows a side view of a diesel generator. Labeled components include: Ammeter (SSDG 1 Only), Oil Pressure Gauge, Sight Glass, Expansion Tank, Coolant Temperature Gauge, Fuel Pressure Gauge, Filter Restriction Gauge, Fuel Filter Water Separator, Drain Fitting, Oil Dipstick, Ships Service Diesel Generator, Coolant Tank Cap, Air Start Oiler (SSDG 2 Only), and Fuel Filter.</p>	Class III leaks.
69	After	3.0	SEWAGE DISCHARGE PUMPS	<p>Visually inspect pumps for leaks, loose connections and damage.</p>  <p>The diagram shows a vertical sewage discharge pump assembly. Labeled components include: Grease Fitting, Sewage Discharge Piping, Sewage Discharge Pump, Valve, and Sewage Inlet Piping.</p>	Class III leaks.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
70	After	0.2	CONTROL AIR DRYER	Check dryer for loose connections and damage.	
71	After	0.2	CONTROL AIR RECEIVER	Check receiver for loose connections and damage.	
72	After	1.0	MAIN PROPULSION ENGINES	a. Inspect engine, fuel system, and cooling system for loose or damaged connections or mountings.  b. Inspect fluid lines and joints for leaks.  c. Check that the oil level in air line lubricator is over 1/2 full. Add oil (OE/HDO-10) as required.	Class III leaks
73	After	0.5	Soak Back Pump	Verify that the soak back pump operates for 25 minutes when the START switch is pushed.	Soak back system does not operate.



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
74	After	0.5	PRELUBE PUMP	<p>Inspect pump for leaks, loose connections, and damage.</p> 	Pump is defective.
75	After	1.0	REDUCTION GEAR COOLING PUMPS	<p>Inspect reduction gear cooling pump for leaks, loose connections or loose hardware.</p> 	Class III leaks
76	After	0.3	FUEL OIL TRANSFER PUMPS	<p>Visually inspect pumps for leaks, loose connections, and damage.</p> 	Pumps are defective.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
77	After	0.5	FUEL OIL DAY TANKS	a. Check the amount of fuel in the day tanks. Sound the day tanks and compare the reading to the level indicated on the tank level indicator.  b. Check for any evidence of fuel leakage.  c. Transfer fuel (WP 0074 00, volume 1) as necessary to top off the tanks.	Any fuel leakage
78	After	1.0	BATTERY CHARGERS (SSDG 1, MACHINERY DC CONTROL, ROWPU)	a. At 120V emergency distribution panel No. 1, check that the SSDG No. 1 BATTERY CHARGER. and MACHINERY DC CONTROL BATTERY CHARGER. circuit breakers are set to ON.  b. At 120V distribution panel No. 4, check that the ROWPU BATTERY CHARGER. circuit breaker is set to ON.  c. Check battery chargers for proper connections to battery.  <p style="text-align: center;">NOTE</p> A high reading indicates that the batteries are weak and are being recharged or that one or more batteries are unserviceable.  d. Check the ammeter reading. The ammeter should read near 0 for a trickle charge. If the reading is above 3 AMPS, refer to unit maintenance.	Unit fails to operate and recharge the batteries

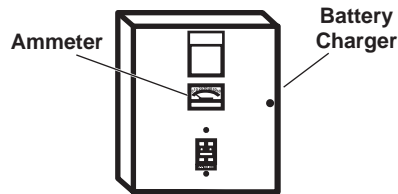
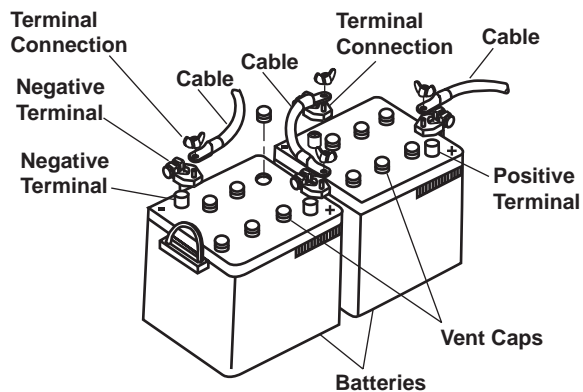


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
79	After	0.3	BATTERIES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Do not smoke when observing battery electrolyte level. Batteries give off fumes that can explode. Electrolyte is an acid and can cause personal injury if it contacts skin or eyes. Wear approved goggles, gloves, and apron.</b></p> <p style="text-align: center;">NOTE</p> <p>Top cover of battery box must be removed to check batteries.</p> <ol style="list-style-type: none"> <li>a. Inspect batteries, terminals, connections, cables and vent caps for cleanliness and tightness.</li> <li>b. Clean or tighten terminal connections as required.</li> <li>c. Clean battery as required using a paste of baking soda and clear water. Rinse with clear water when finished.</li> <li>d. Check electrolyte level and check specific gravity of electrolyte with a hydrometer. Electrolyte level should be at the bottom of the split rings and specific gravity should be 1.265.</li> </ol>	Connections badly damaged or excessively loose





**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

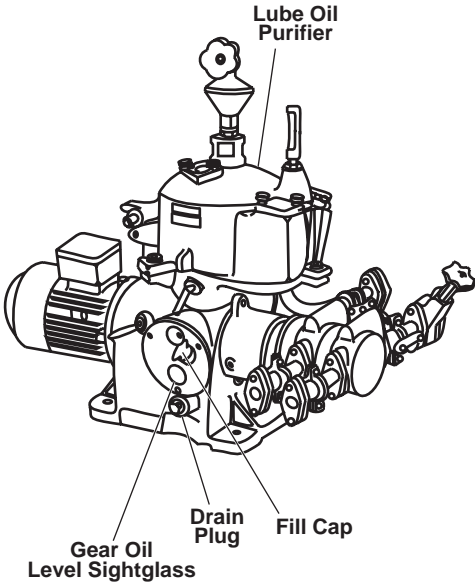
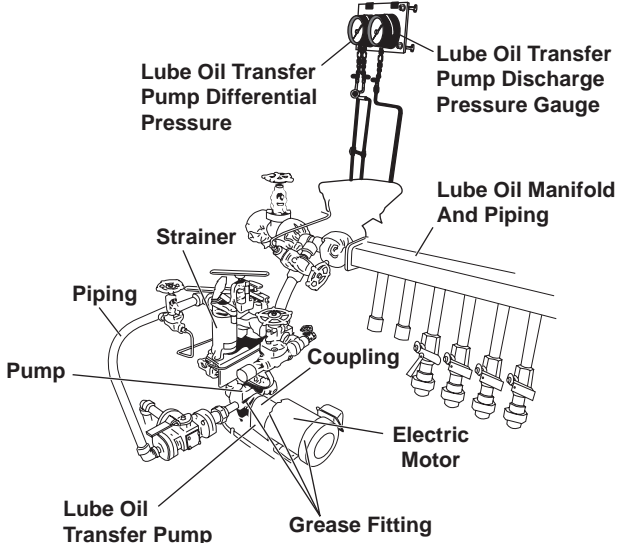
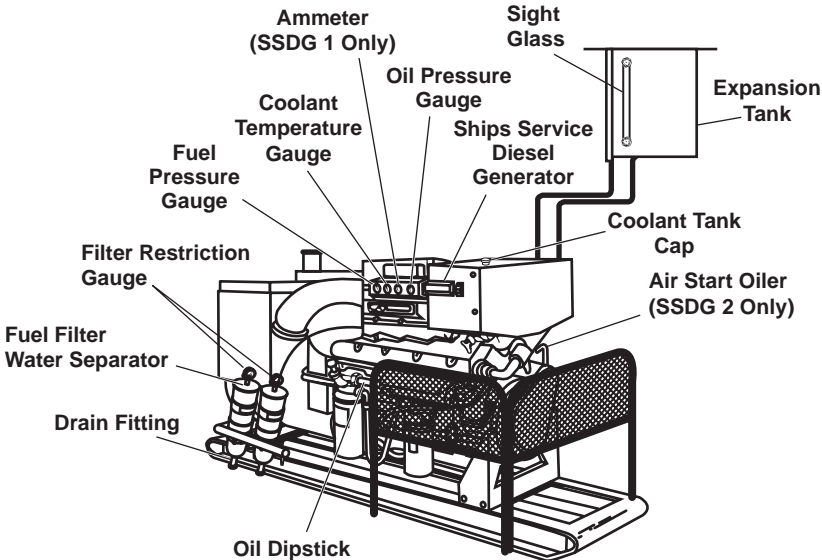
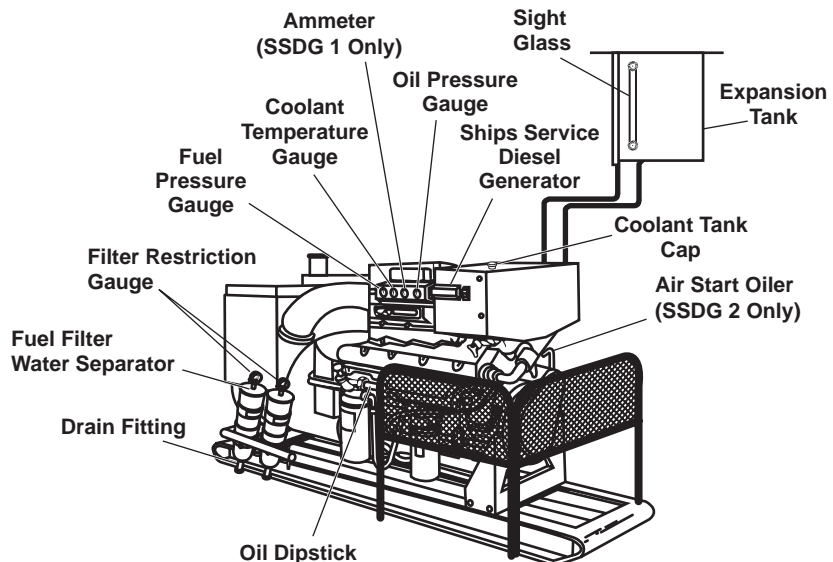
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
80	Weekly	2.0	ENGINE ROOM AND INTERIOR STRUCTURES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p>Operate the ventilators to ensure that hull compartments and engine room are clear of fuel fumes. Operate the blowers for at least 5 minutes before starting any engine. Failure to comply can result in injury or death.</p> <p>Inspect the engine room and interior structures for leaks.</p>	Engine room is taking on water or Class III leaks.
81	Weekly	1.0	LUBE OIL PURIFIER	<p>a. Inspect the lubricating oil purifier for secure mountings and loose hardware.</p> <p>b. Loosen the drain plug and allow a small amount of oil to drain. The oil should be clear.</p> <div style="text-align: center; margin-top: 20px;">  <p>The diagram shows a mechanical assembly with a cylindrical tank on top. A funnel-shaped component is labeled 'Lube Oil Purifier'. Below the tank, there are three specific points labeled: 'Gear Oil Level Sightglass' on the left, 'Drain Plug' in the center, and 'Fill Cap' on the right. The entire assembly is mounted on a base with various pipes and fittings.</p> </div>	

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
82	Weekly	1.0	LUBE OIL TRANSFER PUMP	<p>Visually inspect pumps for leaks, loose connections, and damage. Check gauges for normal readings (30 PSI (2.1 bar)).</p> 	Pumps are defective.
83	Weekly	0.2	SHIPS SERVICE DIESEL GENERATORS Expansion Tank	<p>Check the engine and generator for debris, foreign objects, leaks, loose or broken fittings, guards, and components.</p> <p>Check coolant level at the expansion tank sight glass. Coolant should be at or above the 1/2 full level.</p> 	Class III leaks

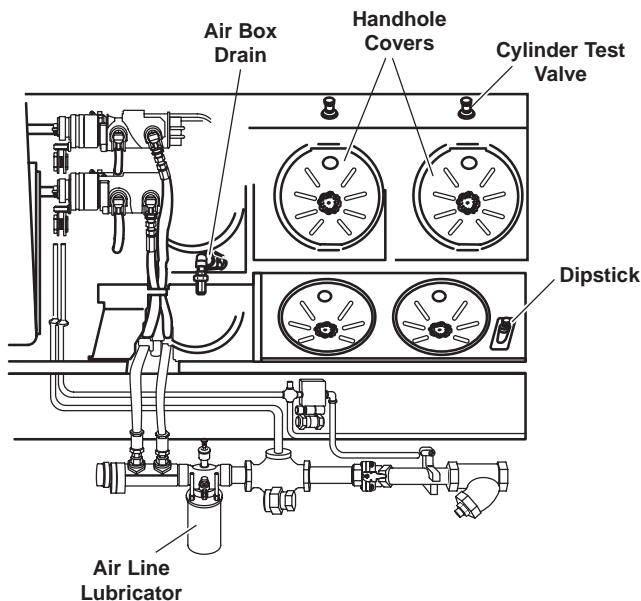
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
84	Weekly	0.1	Tank Cap	Inspect tank cap for signs of leakage.	Class III leaks
85	Weekly	0.2	Air Cleaner Indicator	Check indicator is in the GREEN range.	Indicator is in the RED range
86	Weekly	0.2	Oil Level (Engine Off)	With engine off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil as required (MIL-PRF-2104).	
87	Weekly	0.4	Fuel Filter/Water Separators	a. Drain the engine fuel filter/water separator by opening the drain fitting and permitting the accumulated water and sediment drain into a suitable drain pan.  b. Check that the filter restriction gauges are in the GREEN range.	Reading in the RED range
88	Weekly	0.1	Gauges	a. Check the condition of all the gauges.  b. Check that the fuel pressure gauge reads in the GREEN range.  c. Check that the water temperature gauge reads in or below the GREEN range.	Damaged or missing gauges  Reading in the RED range  Reading above the GREEN range
89	Weekly	0.2	Air Start Oiler (SSDG 2 Only)	Check that the air start oiler jar is at least 1/2 full. Add oil (OE/HDO-10) as required.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
90	Weekly	1.0	MAIN PROPULSION ENGINES	a. Check the engine for debris, foreign objects, and loose or broken fittings. b. Inspect engine, fuel injection pumps, and cooling pumps for loose or damaged connections or mountings. c. Inspect fluid lines and joints for leaks. d. Check that the oil level in air line lubricator is over 1/2 full. Add oil (OE/HDO-10) as required. e. Check the oil level. Oil level be between the LOW and FULL marks. Add oil (MOBILGARD 450) as required. f. Check engine that the air filter indicator is in the GREEN range.	Class III leaks          Air filter indicator is in the RED range
91	Weekly	0.3	Cylinder Test Valves	Check cylinder test valves for leakage and tighten if required.	An exhaust gas leak exists.
92	Weekly	0.3	Handhole Covers	Check handhole covers for leakage, and tighten if required.  NOTE If air box drains are kept closed, drain after every 4 hours of operation.	
93	Weekly	0.3	Air Box Drains	Check air box drains for proper operation and clean if necessary.	Drains do not operate.



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

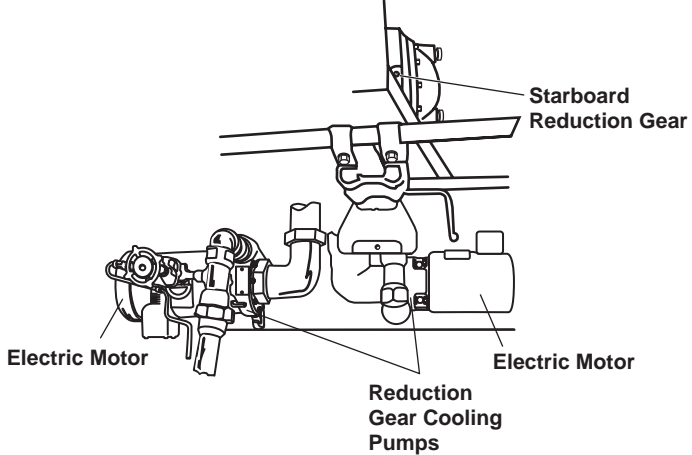
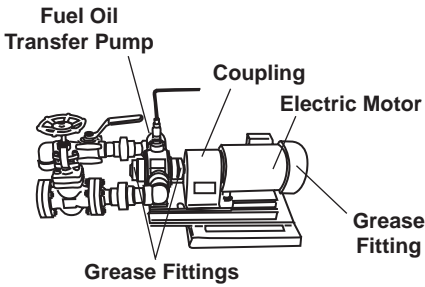
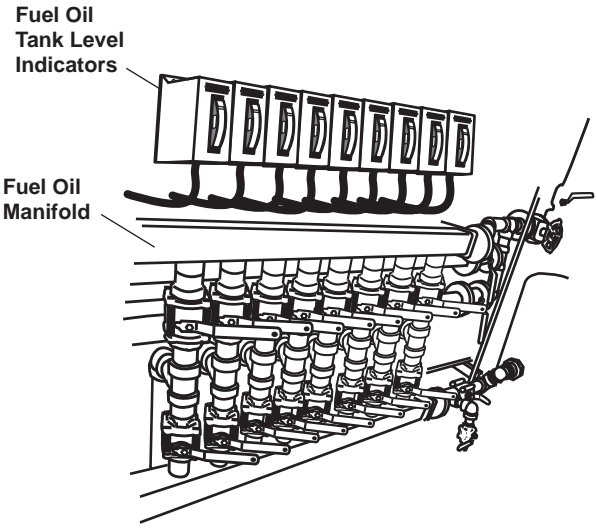
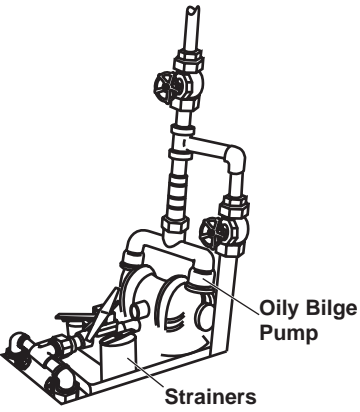
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
94	Weekly	1.0	REDUCTION GEAR COOLING PUMPS	<p>Inspect reduction gear cooling pump for leaks, loose connections or loose hardware.</p> 	Class III leaks
95	Weekly	1.0	FUEL OIL TRANSFER PUMPS	<p>Visually inspect pumps for leaks, loose connections, and damage.</p> 	Pumps are defective.
96	Weekly	0.5	FUEL OIL DAY TANKS	<ol style="list-style-type: none"> <li>a. Check the amount of fuel in the day tanks. Sound the day tanks and compare the reading to the level indicated on the tank level indicator.</li> <li>b. Check for any evidence of fuel leakage.</li> <li>c. Transfer fuel (WP 0074 00, volume 1) as necessary to top off the tanks.</li> </ol>	Any fuel leakage

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
97	Weekly	2.0	FUEL OIL SYSTEM	<p>Visually inspect the fuel oil manifold, valves and piping for cracks, leaks, and secure mounting.</p>  <p>The diagram shows a fuel oil manifold assembly with multiple fuel injectors. Above the manifold is a row of fuel oil tank level indicators. Labels with leader lines point to the 'Fuel Oil Tank Level Indicators' and the 'Fuel Oil Manifold'.</p>	Any fuel leaks or unserviceable mounting.
98	Weekly	1.5	OILY BILGE SYSTEM Pump	Visually inspect pump for leaks, loose connections and damage. Inspect air filter.	Class III leaks.
99	Weekly	1.5	Valves and Piping	Visually inspect all piping and valves for leaks, loose connections and damage.	Class III leaks, or unserviceable condition.
100	Weekly	3.0	Oily Waste Drain and Storage Tank	<p>Visually inspect the oily waste drain and storage tank for leaks, loose connections and damage.</p>  <p>The diagram shows an oily bilge pump assembly with a vertical discharge pipe and a horizontal intake pipe. Labels with leader lines point to the 'Oily Bilge Pump' and 'Strainers'.</p>	Class III leaks, or unserviceable condition.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

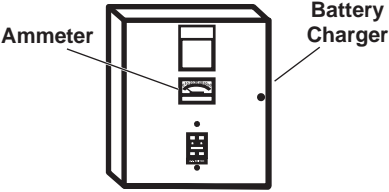
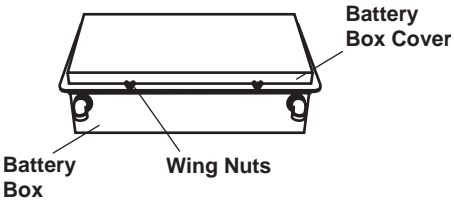
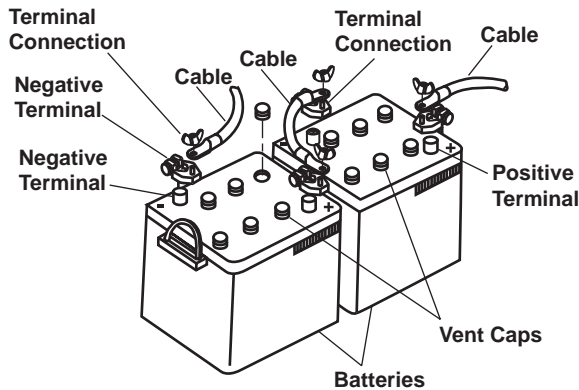
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
101	Weekly	1.0	BATTERY CHARGERS (SSDG 1, MACHINERY DC CONTROL, ROWPU)	<p>a. At 120V emergency distribution panel No. 1, check that the SSDG No. 1 BATTERY CHARGER. and MACHINERY DC CONTROL BATTERY CHARGER. circuit breakers are set to ON.</p> <p>b. At 120V distribution panel No. 4, check that the ROWPU BATTERY CHARGER. circuit breaker is set to ON.</p> <p>c. Check battery chargers for proper connections to battery.</p> <p style="text-align: center;">NOTE</p> <p>A high reading indicates that the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>d. Check the ammeter reading. The ammeter should read near 0 for a trickle charge. If the reading is above 3 AMPS, refer to unit maintenance.</p> <div style="text-align: center;">  </div>	Unit fails to operate and recharge the batteries
102	Weekly	0.2	BATTERY BOX	<p>Visually inspect battery box for obvious damage. Ensure that the vent is not obstructed.</p> <div style="text-align: center;">  </div>	Batteries not secured for operation

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
103	Weekly	1.0	BATTERIES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Do not smoke when observing battery electrolyte level. Batteries give off fumes that can explode. Electrolyte is an acid and can cause personal injury if it contacts skin or eyes. Wear approved goggles, gloves, and apron.</b></p> <p style="text-align: center;">NOTE</p> <p>Top cover of battery box must be removed to check batteries.</p> <ol style="list-style-type: none"> <li>a. Inspect batteries, terminals, connections, cables and vent caps for cleanliness and tightness.</li> <li>b. Clean or tighten terminal connections as required.</li> <li>c. Clean battery as required using a paste of baking soda and clear water. Rinse with clear water when finished.</li> <li>d. Check electrolyte level and check specific gravity of electrolyte with a hydrometer. Electrolyte level should be at the bottom of the split rings and specific gravity should be 1.265.</li> </ol>	Connections badly damaged or excessively loose



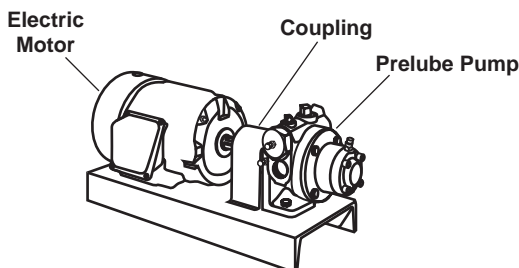
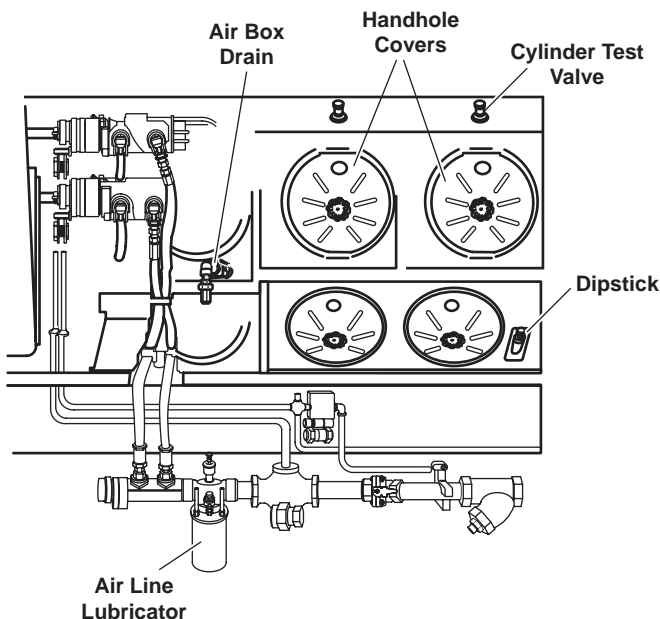


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
104	Monthly	0.3	LUBE OIL TRANSFER PUMP	<p>a. Visually inspect pumps for leaks, loose connections, and damage.</p> <p>b. Grease two motor fittings with 1 to 2 strokes of general purpose grease.</p> <p>c. Grease pump fitting with 1 to 2 strokes of general purpose grease.</p>	Class III leaks
105	Monthly	2.1	SEWAGE DISCHARGE PUMPS	<p>a. Visually inspect pump for leaks, loose connections and damage, and service as necessary.</p> <p>b. Inspect piping and valves.</p> <p>c. Inspect motor for any unserviceable condition.</p> <p>d. Grease pump fitting with 1 to 2 strokes of general purpose grease.</p>	<p>Class III leaks.</p> <p>Class III leaks.</p> <p>Pump inoperative.</p>

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
106	Monthly	0.5	MAIN PROPULSION ENGINES Water Jacket Heater	Check for proper operation by placing your hand near, but not on the block. Warmth should be felt.	
107	Monthly	0.5	Soak Back Pump	Verify that the soak back pump operates for 25 minutes when the start button is pushed.	Soak back system does not operate.
108	Monthly	0.5	PRELUBE PUMP	Inspect pump for leaks, loose connections, and damage.	Pump is defective.



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
109	Monthly	0.3	PROPELLER SHAFTS	Check for unusual vibrations. Visually inspect for leaks, loose connections, and damage.	Shaft is misaligned or bent, or bearing is excessively worn.
110	Monthly	0.2	Oily Bilge System Oily Bilge Strainer	Remove the top, and inspect the basket. Remove/clear any debris.	

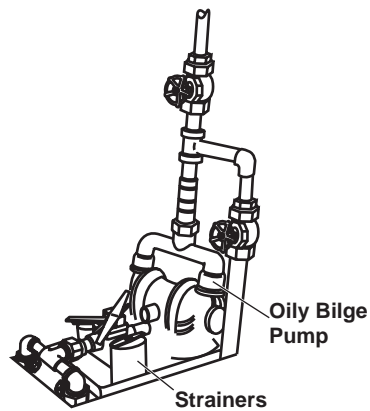
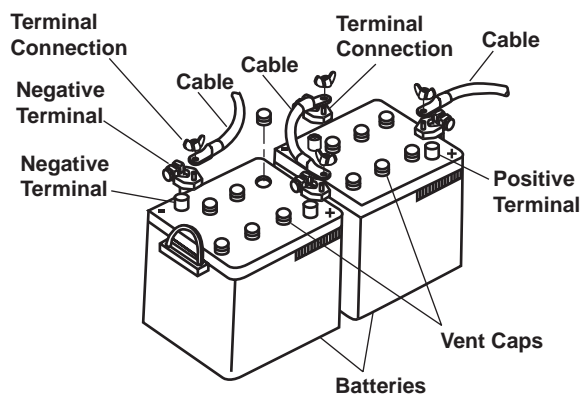


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
111	Monthly	0.3	BATTERIES	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Do not smoke when observing battery electrolyte level. Batteries give off fumes that can explode. Electrolyte is an acid and can cause personal injury if it contacts skin or eyes. Wear approved goggles, gloves, and apron.</b></p> <p style="text-align: center;">NOTE</p> <p>Top cover of battery box must be removed to check batteries.</p> <ol style="list-style-type: none"> <li>a. Inspect batteries, terminals, connections, cables and vent caps for cleanliness and tightness.</li> <li>b. Clean or tighten terminal connections as required.</li> <li>c. Clean battery as required using a paste of baking soda and clear water. Rinse with clear water when finished.</li> <li>d. Check electrolyte level and check specific gravity of electrolyte with a hydrometer. Electrolyte level should be at the bottom of the split rings and specific gravity should be 1.265.</li> </ol>	Connections badly damaged or excessively loose



**Table 2. Lubricant and Coolant Specifications**

<b>Equipment</b>	<b>Lubricant or Coolant Specification</b>
Fuel Oil Transfer Pump	General Purpose Grease (MIL-PRF-24139)
Fuel Oil Transfer Pump Electric Motor	General Purpose Grease (MIL-PRF-24139)
Lube Oil Purifier Gear Oil	OE/HDO-30 (M2104-3-30W)
Lube Oil Transfer Pump Motor	General Purpose Grease (MIL-PRF-24139)
Main Propulsion Engine Air Line Lubricator	OE-HDO-10 (M2104-3-10W)
Main Propulsion Engine Coolant	50/50 Mix Antifreeze and Water
Main Propulsion Engine Governor	OE/HDO-10 (M2104-3-10W)
Main Propulsion Engine Lube Oil	MOBILGARD 450 (9150-00-135-2634)
Reduction Gear Oil	OE-HDO-40 (9150-00-188-9862)
Sewage Discharge Pump	General Purpose Grease (MIL-PRF-24139)
SSDG Engine Coolant	50/50 Mix Antifreeze and Water
SSDG Engine Lube Oil	OE/HDO-30 (MIL-PRF-2104)
SSDG 2 Air Start Oiler	OE-HDO-10 (M2104-3-10W)

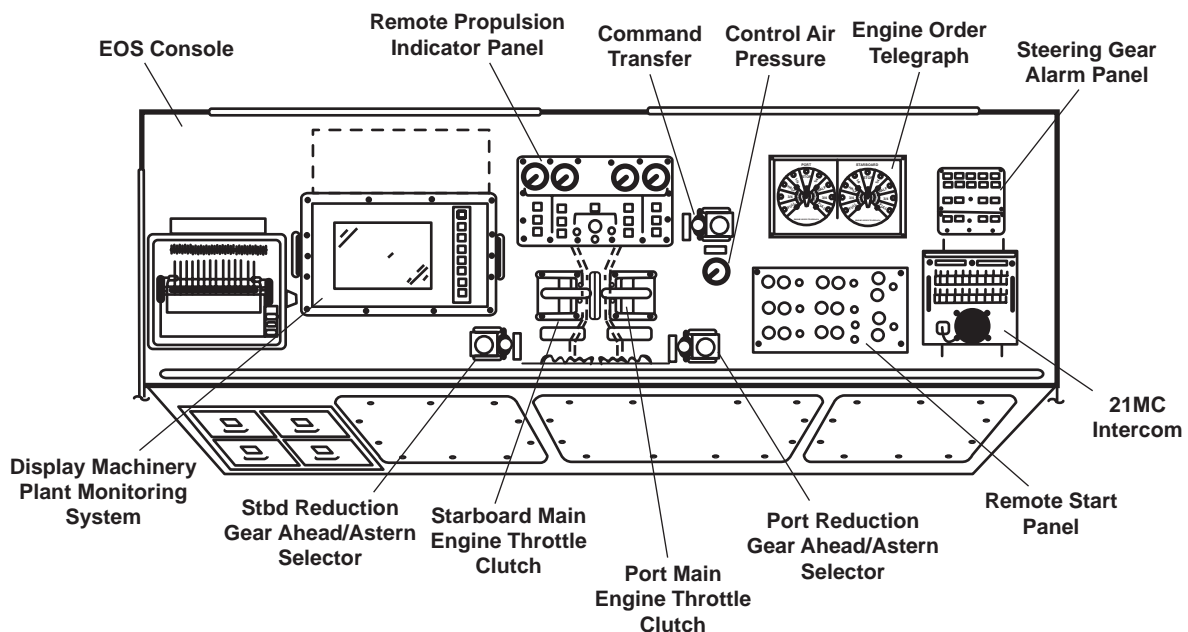
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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
EOS**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.5	EOS CONSOLE	Inspect console for cleanliness, clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that throttle controls operate smoothly and do not bind.	Unit does not power up.
2	Before	0.2	Engine Order Telegraph	Conduct test with pilothouse to ensure communication. Move selector through each position ensuring corresponding indicator lights.	Unit does not communicate with the pilothouse.
3	Before	0.2	Steering Gear Alarm Panel	Press SYSTEM TEST pushbutton. All lights should light.	Unit not repairable.
4	Before	0.2	Remote Propulsion Indicator Panel	Press and hold LAMP TEST button. All lights should light. Adjust the intensity of the lights using the dimmer control.	The indicator panel is unreadable, or it does not function.
5	Before	1.0	Display, Machinery Plant Monitoring System	Using PAGE + pushbutton, page through each screen to ensure that each display is readable.	Any display that is unreadable or "scrambled."



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.7	MAIN SWITCHBOARD	Visually inspect the exterior of the switchboard for damaged or missing circuit breakers, meters, controls, indicators, or lights.	If any part is missing, or meters are unserviceable.
7	Before	0.5	Switchboard	Inspect and test components on the switchboard. Service as necessary.	Any component inoperative or unserviceable.

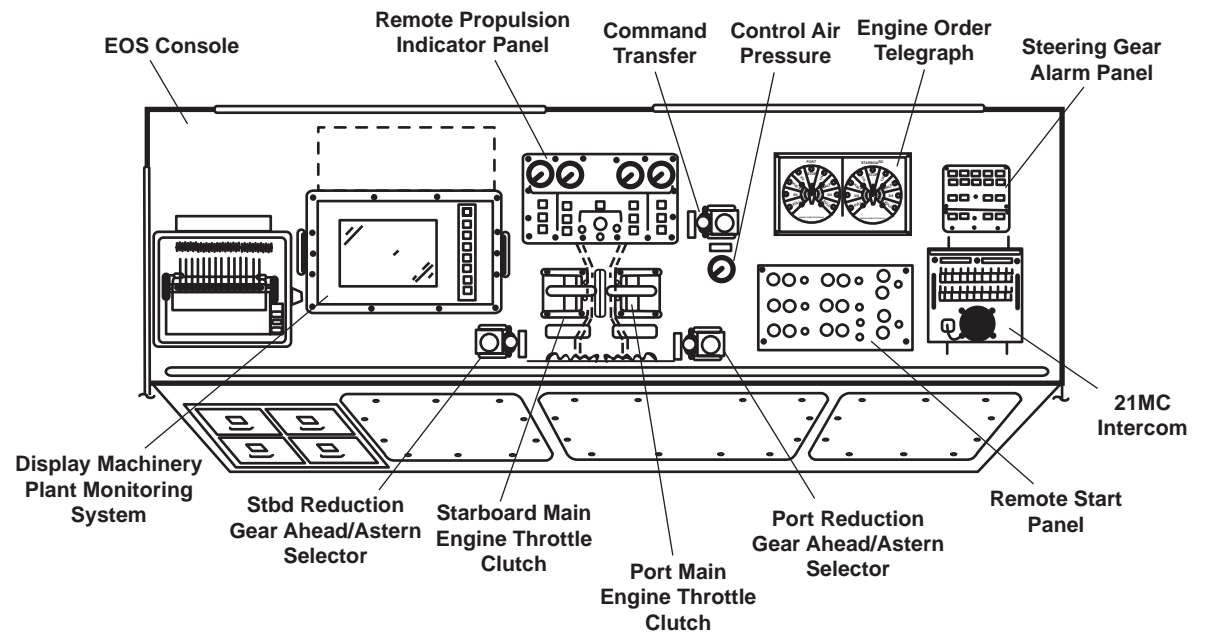
**Main Switchboard**



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	2.0	TANK LEVEL INDICATOR TRANSMITTER AND RECEIVER PANELS	Set ON-OFF switch to OFF position until all fluid level meters read zero.	
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p><b>Fuel Oil and Lube Oil Master TLI in EOS</b></p> </div> <div style="text-align: center;"> <p><b>Master TLI in EOS</b></p> </div> </div>					

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	During	0.2	EOS CONSOLE  Display Machinery Plant Monitoring System	Using PAGE + pushbutton, page through each screen to ensure that each display is readable.	Any display that is unreadable or "scrambled."
 <p>The diagram shows a detailed view of the EOS Console control panel. It includes the following labeled components:</p> <ul style="list-style-type: none"> <li>EOS Console</li> <li>Remote Propulsion Indicator Panel</li> <li>Command Transfer</li> <li>Control Air Pressure</li> <li>Engine Order Telegraph</li> <li>Steering Gear Alarm Panel</li> <li>21MC Intercom</li> <li>Remote Start Panel</li> <li>Port Reduction Gear Ahead/Astern Selector</li> <li>Port Main Engine Throttle Clutch</li> <li>Starboard Main Engine Throttle Clutch</li> <li>Starboard Reduction Gear Ahead/Astern Selector</li> <li>Display Machinery Plant Monitoring System</li> </ul>					

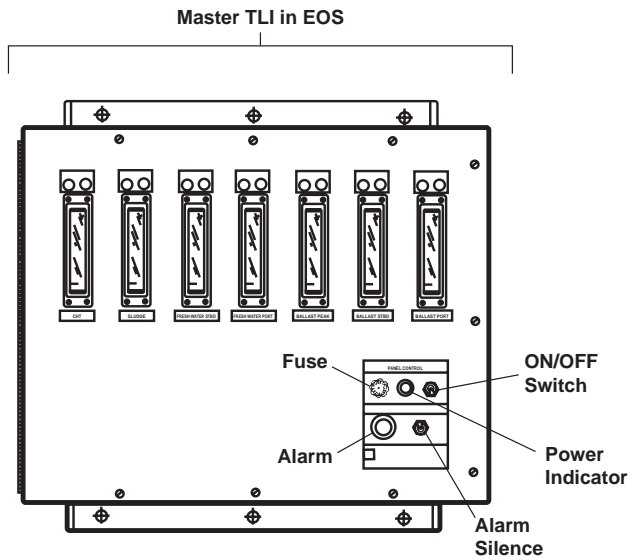
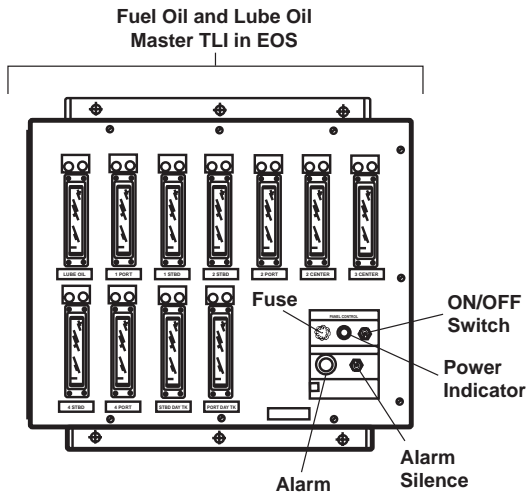
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	During	0.7	MAIN SWITCHBOARD	Visually inspect the exterior of the switchboard for damaged or missing circuit breakers, meters, controls, indicators, or lights.	If any part is missing, or meters are unserviceable.
11	During	0.5	Switchboard	Inspect and test components on the switchboard. Service as necessary.	Any component inoperative or unserviceable.

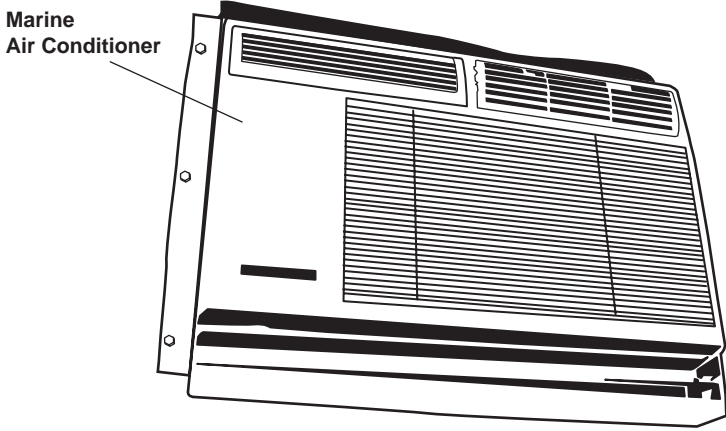
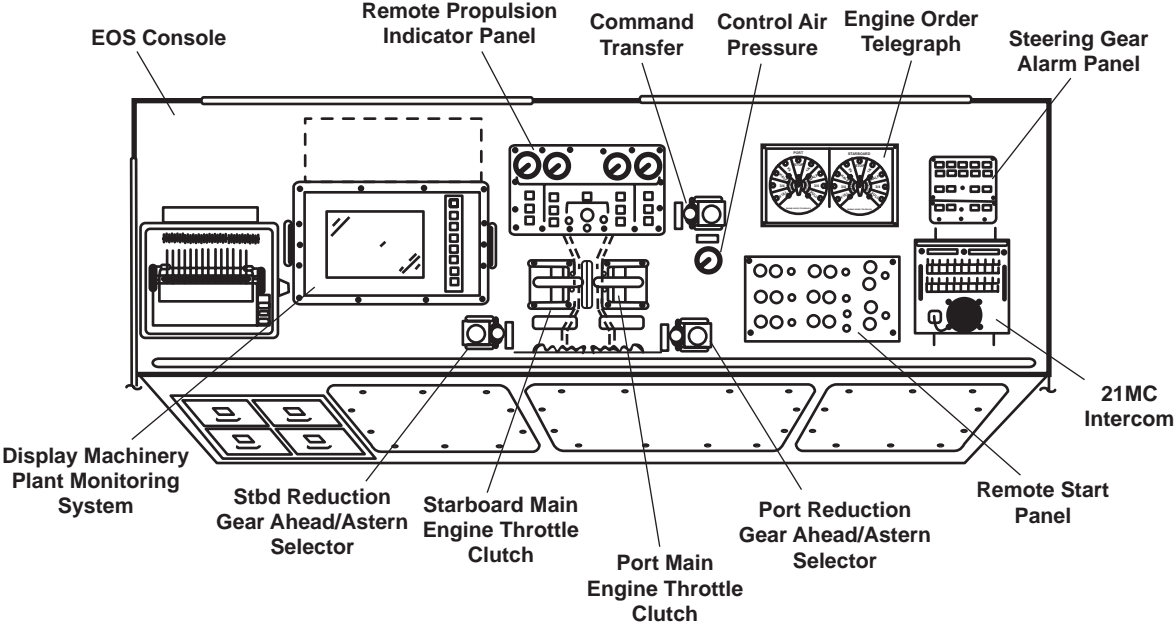
**Main Switchboard**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	During	1.5	TANK LEVEL INDICATOR TRANSMITTER AND RECEIVER PANELS	Set the ON-OFF switch on the master units to the ON position and verify that the POWER lamp lights. Visually inspect all remote indicator receiver devices to ensure that they follow the master panel in the EOS.	
13	During	0.2	Alarm	At the 11 channel master TLI panel, pull out and up on the ALARM SILENCE switch to test the alarm. The alarm will sound. Then pull out and press down on the ALARM SILENCE switch and release, and verify that the alarm silences.	

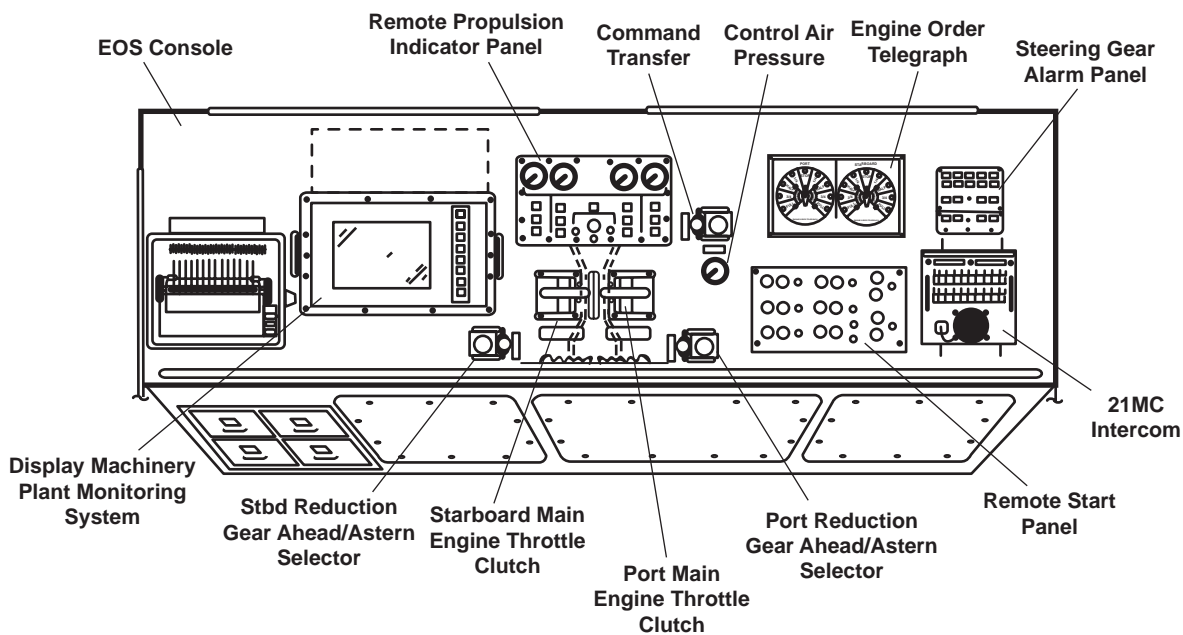


**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	During	0.1	MARINE AIR CONDITIONER UNIT	Inspect for secure mounting, and listen for unusual sounds during operation.	
					
15	Weekly	0.2	EOS CONSOLE	Inspect console for cleanliness, clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that throttle controls operate smoothly and do not bind.	Unit does not power up.
					

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Weekly	0.2	Engine Order Telegraph	Conduct test with pilothouse to ensure communication. Move selector through each position ensuring corresponding indicator lights.	Unit does not communicate with the pilothouse.
17	Weekly	0.2	Steering Gear Alarm Panel	Press SYSTEM TEST pushbutton. All lights should light.	Unit not repairable.
18	Weekly	0.2	Remote Propulsion Indicator Panel	Press and hold LAMP TEST button. All lights should light. Adjust the intensity of the lights using the dimmer control.	The indicator panel is unreadable, or it does not function.



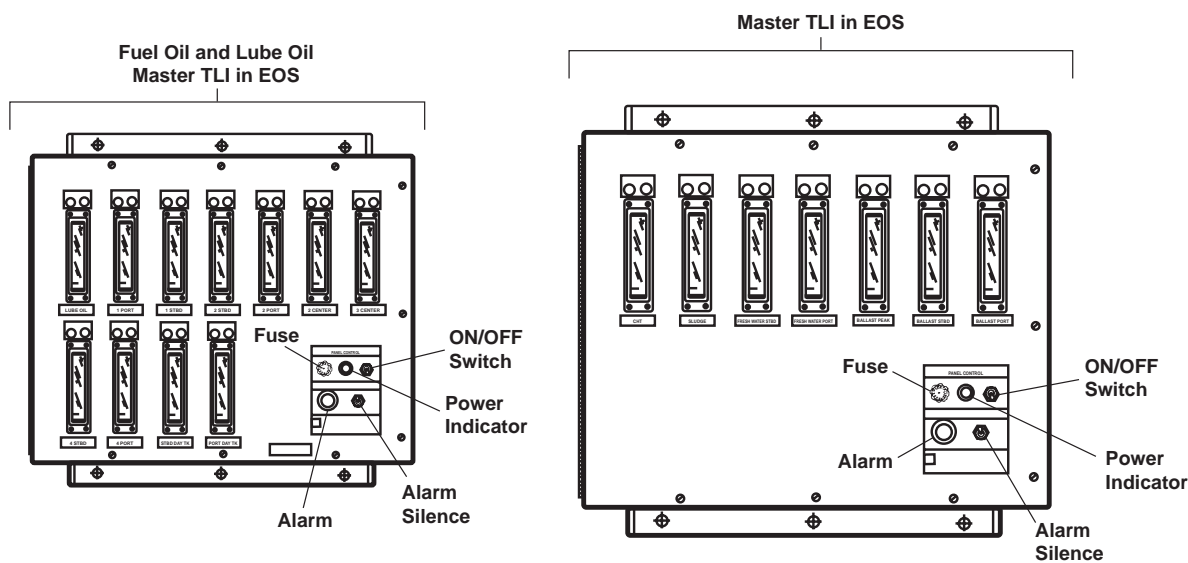
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Weekly	0.7	MAIN SWITCHBOARD	Visually inspect the exterior of the switchboard for damaged or missing circuit breakers, meters, controls, indicators, or lights.	If any part is missing, or meters are unserviceable.
20	Weekly	0.5	Switchboard	Inspect and test components on the switchboard. Service as necessary.	Any component inoperative or unserviceable.
21	Monthly	0.7	MAIN SWITCHBOARD	Inspect and test components on the switchboard. Service as necessary.	Any component inoperative or unserviceable.

**Main Switchboard**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
22	Monthly	2.0	TANK LEVEL INDICATOR TRANSMITTER AND RECEIVER PANELS	Set the ON-OFF switch on the master units to the ON position and verify that the POWER lamp lights. Visually inspect all remote indicator receiver devices to ensure that they follow the master panel in the EOS.	
23	Monthly	0.2	Alarm	At the 11 channel master TLI panel, pull out and up on the ALARM SILENCE switch to test the alarm. The alarm will sound. Then pull out and press down on the ALARM SILENCE switch and release, and verify that the alarm silences.	
24	Monthly	0.2	Switch	Set ON-OFF switch to OFF position until all fluid level meters read zero.	





**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
25	Monthly	0.1	MARINE AIR CONDITIONER UNIT	Inspect for secure mounting, and listen for unusual sounds during operation.	

Marine Air Conditioner

**END OF WORK PACKAGE**



**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
AMS 1**

**Table 1. Preventive Maintenance Checks and Services Chart**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	BOW THRUSTER ENGINE AND MARINE GEAR  Air Starter Oiler Bowl	Visually inspect bowl. Cup must be at least ½ full. Add oil (OE/HDO-10) as required.	
2	Before	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
3	Before	0.2	Marine Gear Oil	With engine turned off, check the marine gear oil dipstick. Oil level should be between the ADD and FULL marks. Add oil (OE/HDO-30) as required.	

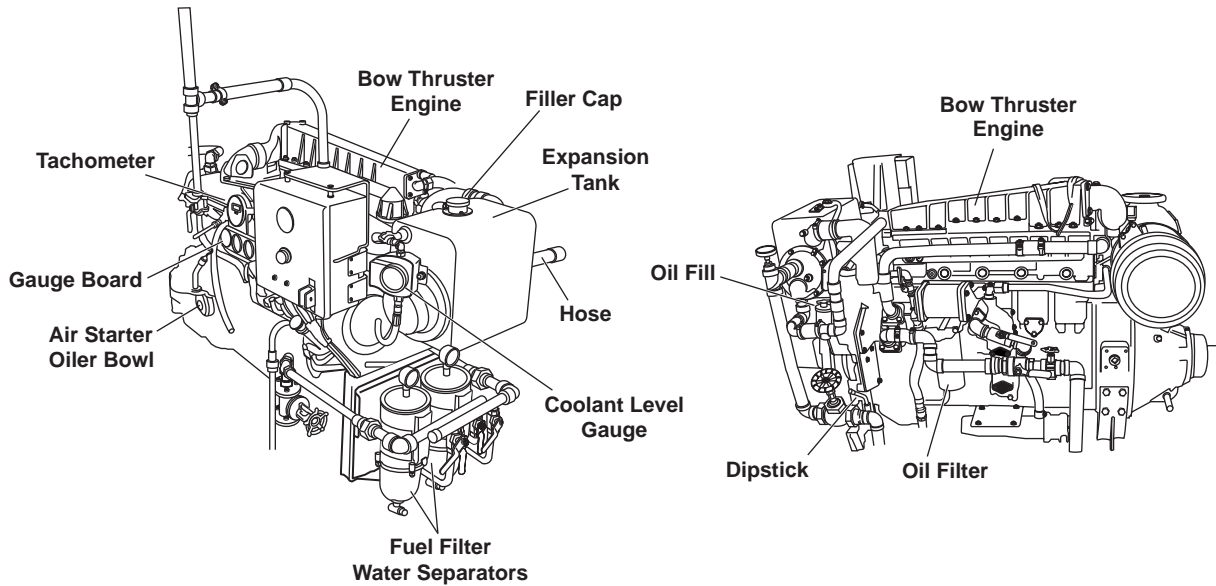
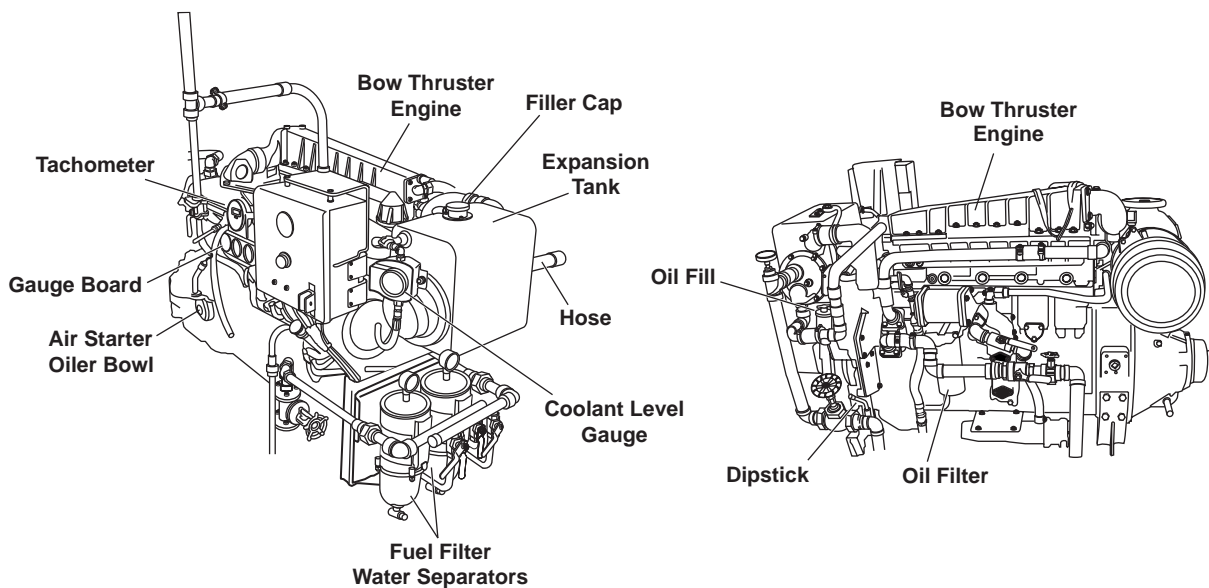


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before	0.2	Cooling System	<div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b></p> <p>Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.</p>	
5	Before	0.2	Mounting Fixtures	Inspect for damaged or missing parts.	
6	Before	0.2	Heat Exchanger Connecting Lines	Inspect for leaks, sponginess, or other damage.	Damaged or missing parts. Class III leaks
7	Before	0.2	Flexible Hoses	Inspect for leaks, sponginess, or other damage.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	0.2	PUMP DRIVE ENGINE Air Starter Oiler Bowl	Visually inspect bowl. Cup must be at least ½ full. Add oil (OE/HDO-10) as required.	
9	Before	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
				<b>WARNING</b>	
				<b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b>	
10	Before	0.2	Cooling System	Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.	
11	Before	0.2	Mounting Fixtures	Inspect for damaged or missing parts.	
12	Before	0.2	Heat Exchanger Connecting Lines	Inspect for leaks, sponginess, or other damage.	Damaged or missing parts. Class III leaks
13	Before	0.2	Flexible Hoses	Inspect for leaks, sponginess, or other damage.	

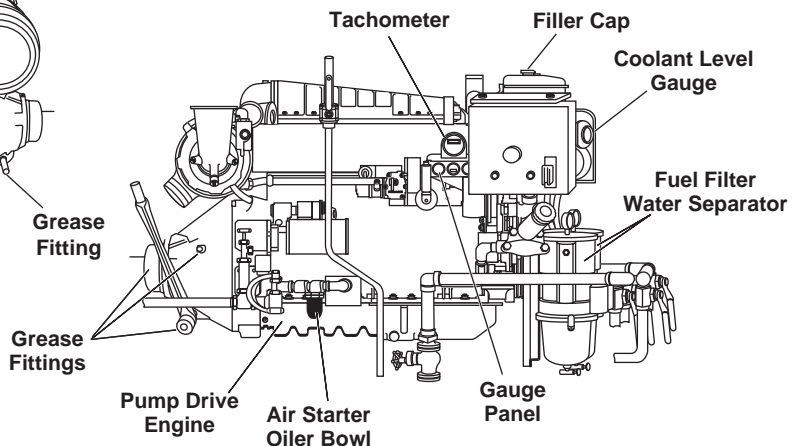
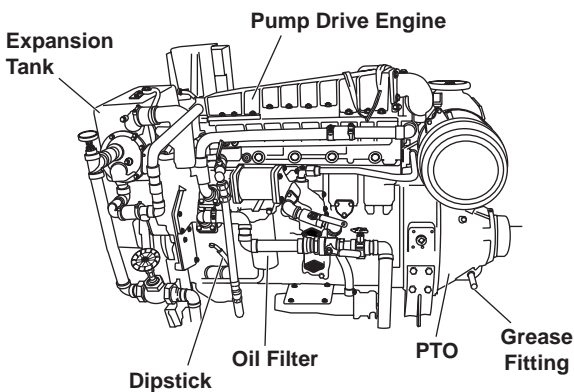
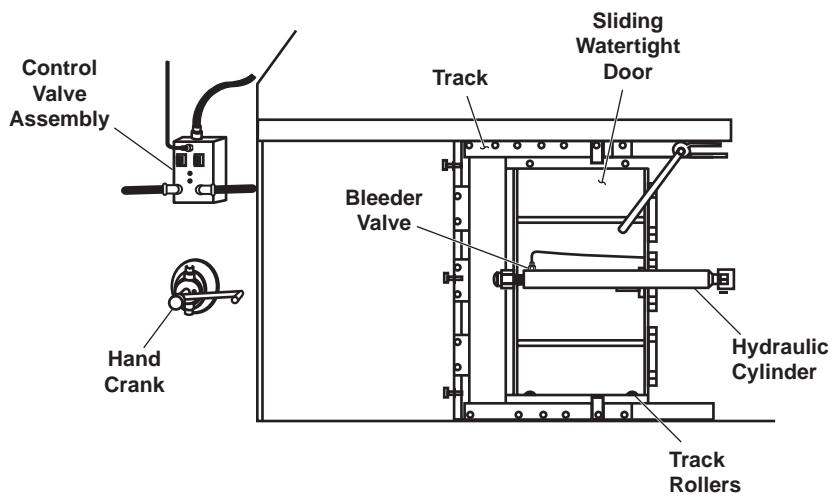
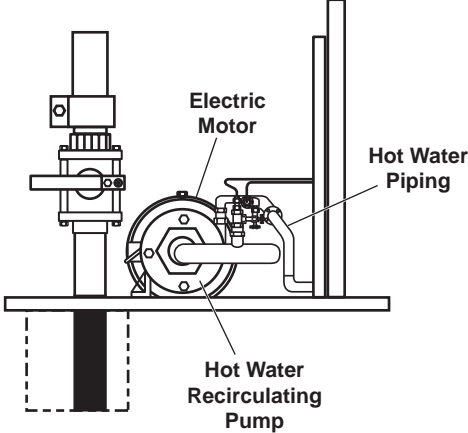
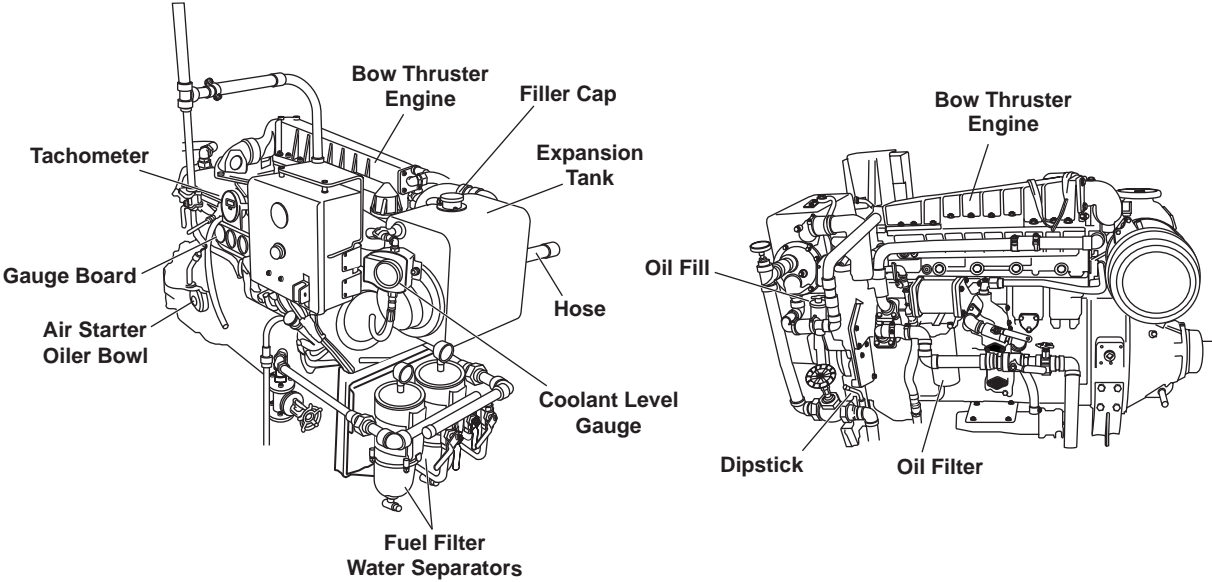


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Before	0.2	SLIDING HYDRAULIC WATERTIGHT DOOR	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Do not operate door with pressure shutoff valves closed as this will back-pressure the local hand pump and cause the seals to rupture.</p>	
15		0.2		<p>Check the hydraulic fluid level in the reservoir located in the main deck passageway (WP 0151 00).</p>	
16	Before	0.2		<p>Operate the door to the full OPEN/ CLOSED position.</p>	<p>Door will not OPEN and/or CLOSE fully.</p>

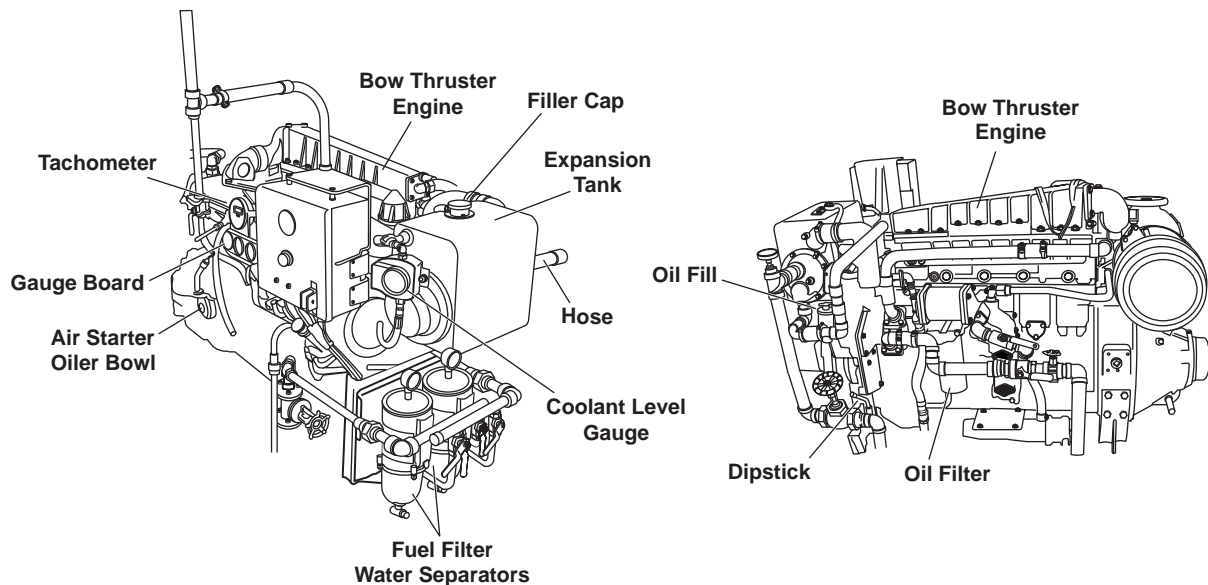


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Before	0.6	HOT WATER RECIRCULATING PUMP	<p>Visually inspect the pump for leaks, loose connections, and damage. Compare pressure readings with the readings at the hydropneumatic tank in AMS 2. The two readings should be within 5 PSI of each other.</p> 	Class III leaks
18	During	0.2	BOW THRUSTER ENGINE AND MARINE GEAR	<p>Oil pressure gauge should read in the GREEN range.</p> 	Reading in the RED range

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

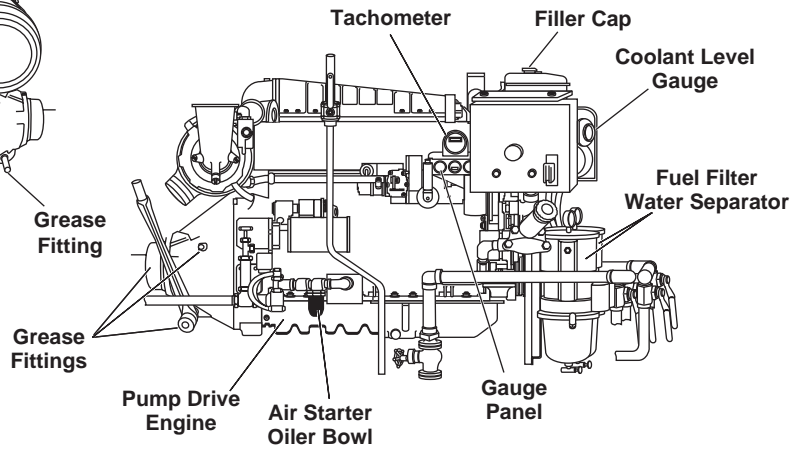
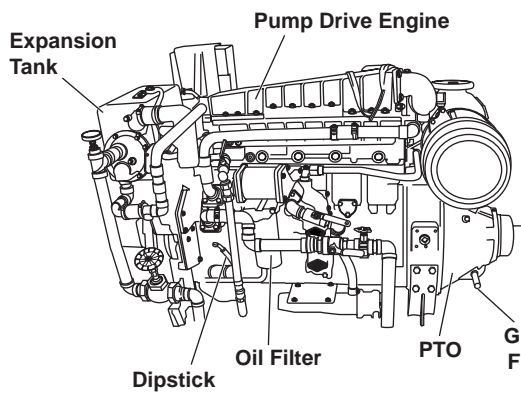
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	During	0.2	Coolant Temperature	Coolant temperature should read in the GREEN range.	Reading in the RED range
20	During	0.2	Tachometer	Engine r/min between 600 (idle) and 2200 (full speed).	
21	During	0.2	Fuel Pressure	Fuel pressure gauge should read in the GREEN range.	Reading in the RED range
22	During	0.2	Marine Gear Oil Pressure Gauge	In NEUTRAL, the marine gear oil pressure gauge should read between 50 and 85 PSI (3.5-5.9 bar). At 1800 r/min, with the marine gear ENGAGED the reading should be between 175 and 200 PSI (12.1-13.8 bar).	Reading higher or lower than the desired values.





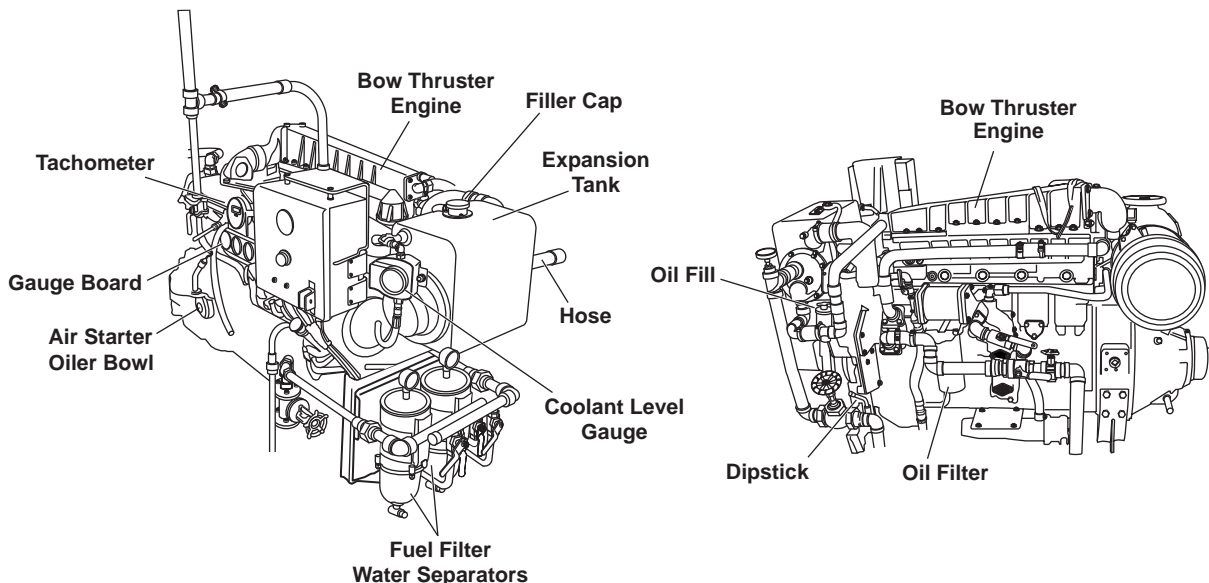
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
23	During	0.2	PUMP DRIVE ENGINE Oil Pressure	Oil pressure gauge should read in the GREEN range.	Reading in the RED range
			Coolant Temperature	Coolant temperature should read in the GREEN range.	Reading in the RED range
24	During	0.2	Tachometer	Engine r/min between 600 (idle) and 2200 (full speed).	
25	During	0.2	Fuel Pressure	Fuel pressure gauge should read in the GREEN range.	Reading in the RED



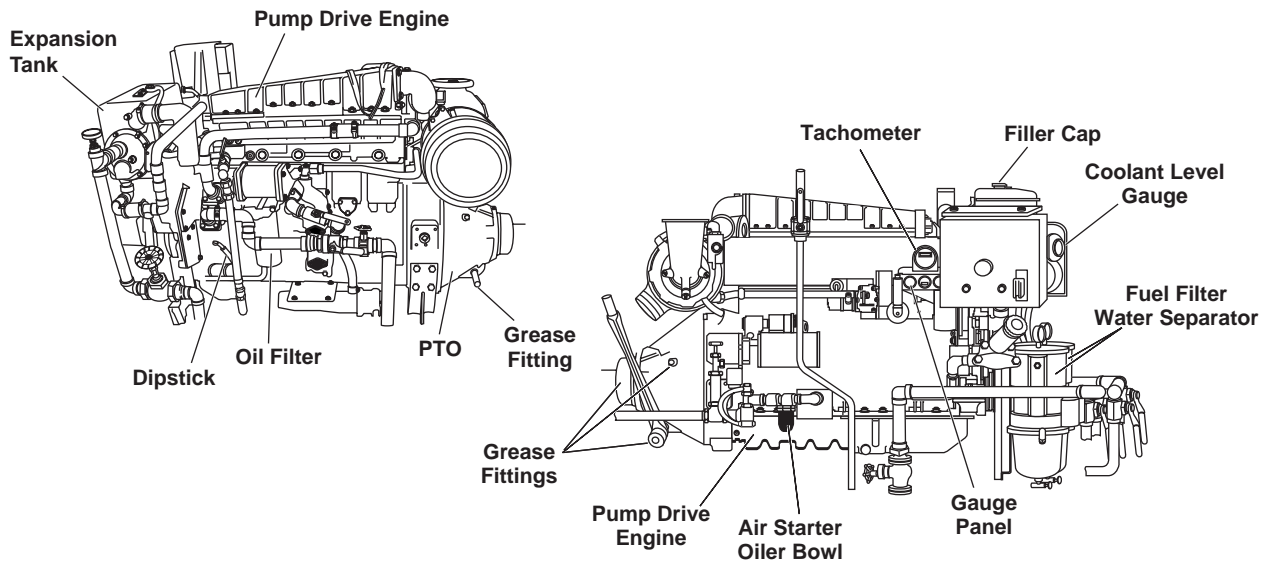
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
26	After	0.2	BOW THRUSTER ENGINE AND MARINE GEAR  Air Starter Oiler Bowl	Visually inspect bowl. Cup must be at least ½ full. Add oil (OE/HDO-10) as required.	
27	After	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
28	After	0.2	Marine Gear Oil	With engine turned off, check the marine gear oil dipstick. Oil level should be between the ADD and FULL marks. Add oil (OE/HDO-30) as required.	
				<div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <p><b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b></p>	
29	After	0.2	Cooling System	Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.	

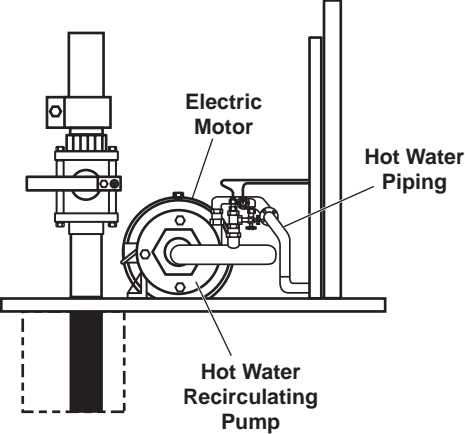
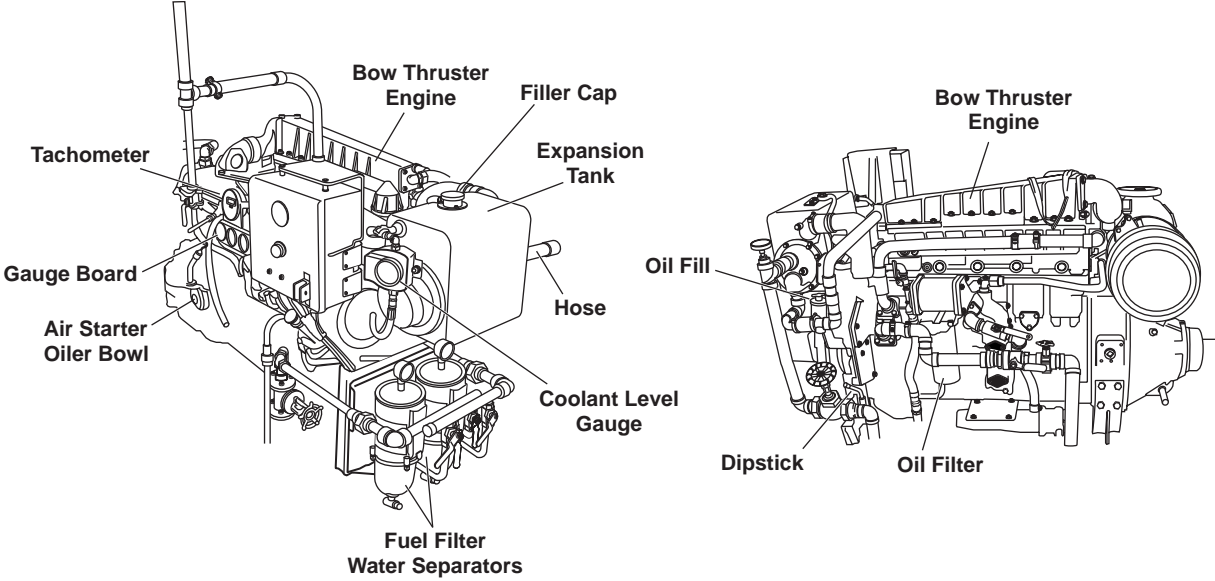


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
30	After	0.2	PUMP DRIVE ENGINE Air Starter Oiler Bowl	Visually inspect bowl. Cup must be at least ½ full. Add oil (OE/HDO-10) as required.	
31	After	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
32	After	0.2	Cooling System	<p style="text-align: center;"><b>WARNING</b></p> <p><b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b></p> <p>Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.</p>	

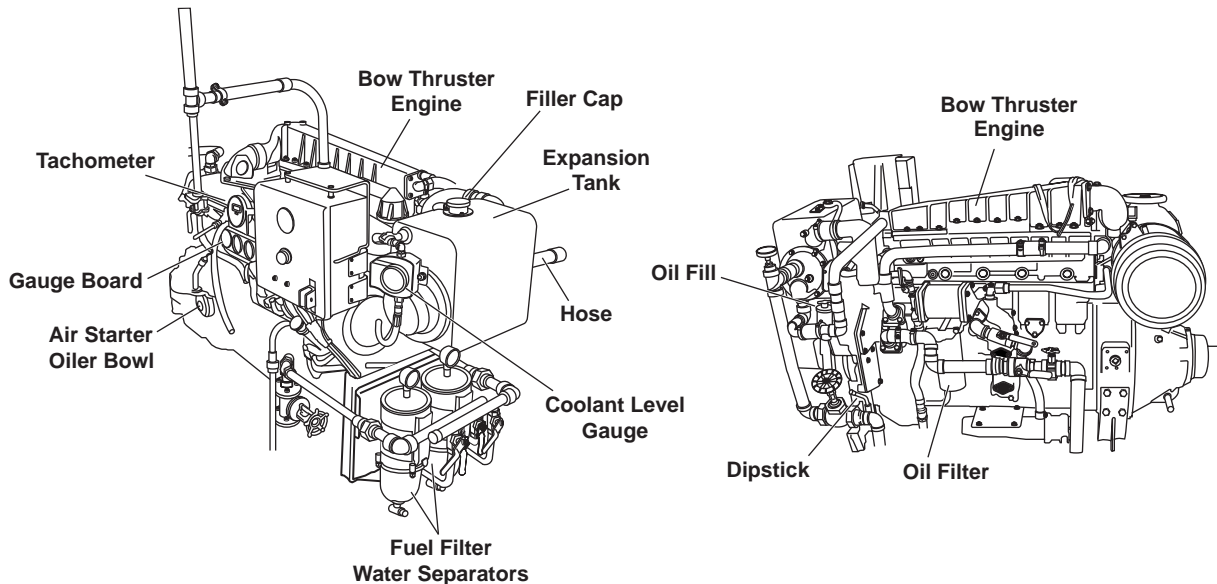


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
33	Weekly	0.2	HOT WATER RECIRCULATING PUMP	<p>Visually inspect pump and gauges for leaks, loose connections and damage.</p> 	
34	Weekly	0.2	BOW THRUSTER ENGINE AND MARINE GEAR  Air Starter Oiler Bowl	<p>Visually inspect bowl. Cup must be at least 1/2 full. Add oil (OE/HDO-10) as required.</p> 	

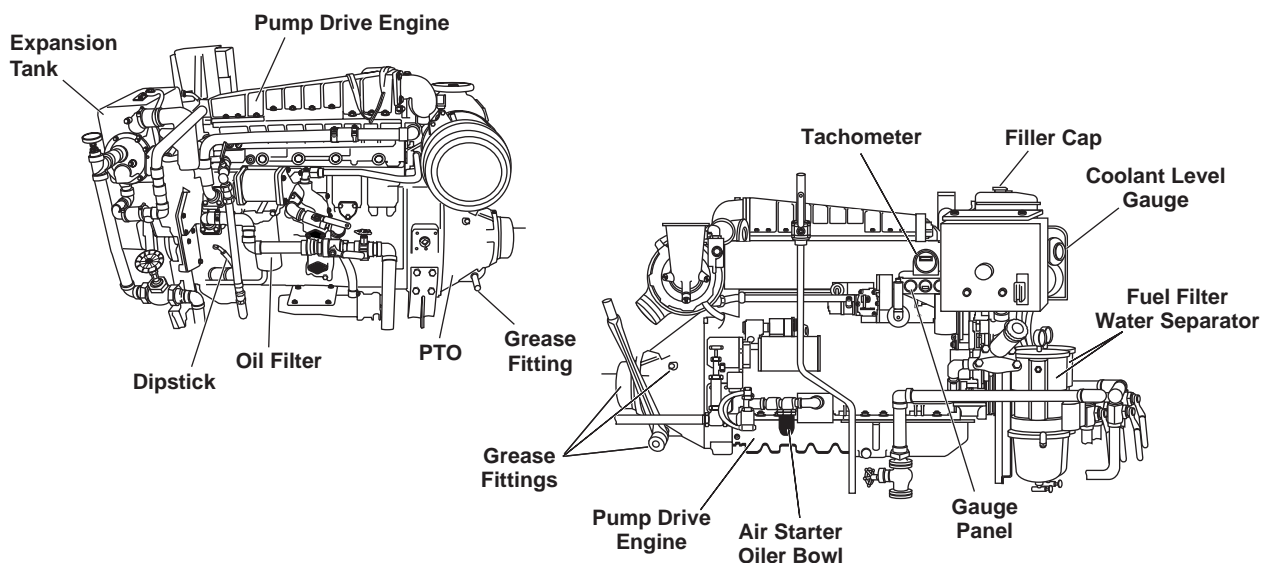
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
35	Weekly	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
36	Weekly	0.2	Marine Gear Oil	With engine turned off, check the marine gear oil dipstick. Oil level should be between the ADD and FULL marks. Add oil (OE/HDO-30) as required.	
<div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <p><b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b></p>					
37	Weekly	0.2	Cooling System	Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.	
38	Weekly	0.2	Mounting Fixtures	Inspect for damaged or missing parts.	
39	Weekly	0.2	Heat Exchanger Connecting Lines	Inspect for leaks, sponginess, or other damage.	Damaged or missing parts. Class III leaks
40	Weekly	0.2	Flexible Hoses	Inspect for leaks, sponginess, or other damage.	



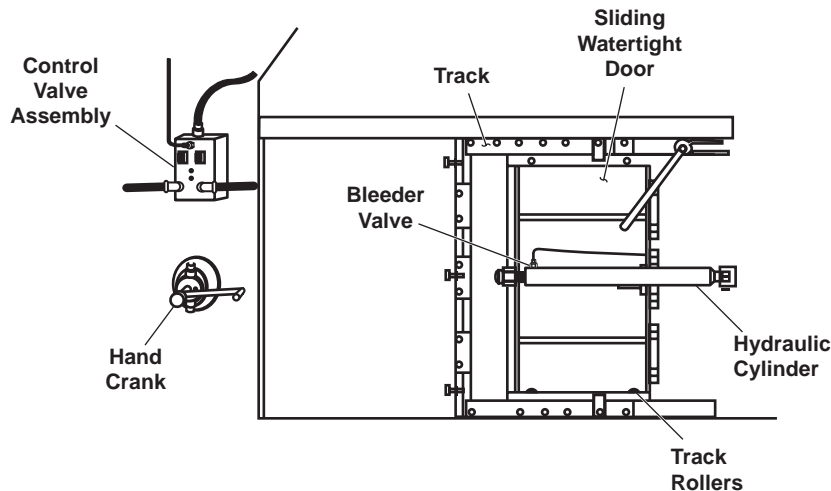
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
41	Weekly	0.2	PUMP DRIVE ENGINE Air Starter Oiler Bowl	Visually inspect bowl. Cup must be at least ½ full. Add oil (OE/HDO-10) as required.	
42	Weekly	0.2	Engine Crankcase Oil	With engine turned off, check oil dipstick. Oil level should be between the ADD and FULL marks on the dipstick. Add oil (OE/HDO-30) as required.	
				<div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <p><b>Engine coolant may be hot. Contact with hot coolant can cause serious injury or death.</b></p>	
43	Weekly	0.2	Cooling System	Check coolant level at the coolant level gauge. Gauge should read FULL. Add coolant (50/50 mix of antifreeze and water) as required.	
44	Weekly	0.2	Mounting Fixtures	Inspect for damaged or missing parts.	
45	Weekly	0.2	Heat Exchanger Connecting Lines	Inspect for leaks, sponginess, or other damage.	Damaged or missing parts. Class III leaks
46	Weekly	0.2	Flexible Hoses	Inspect for leaks, sponginess, or other damage.	

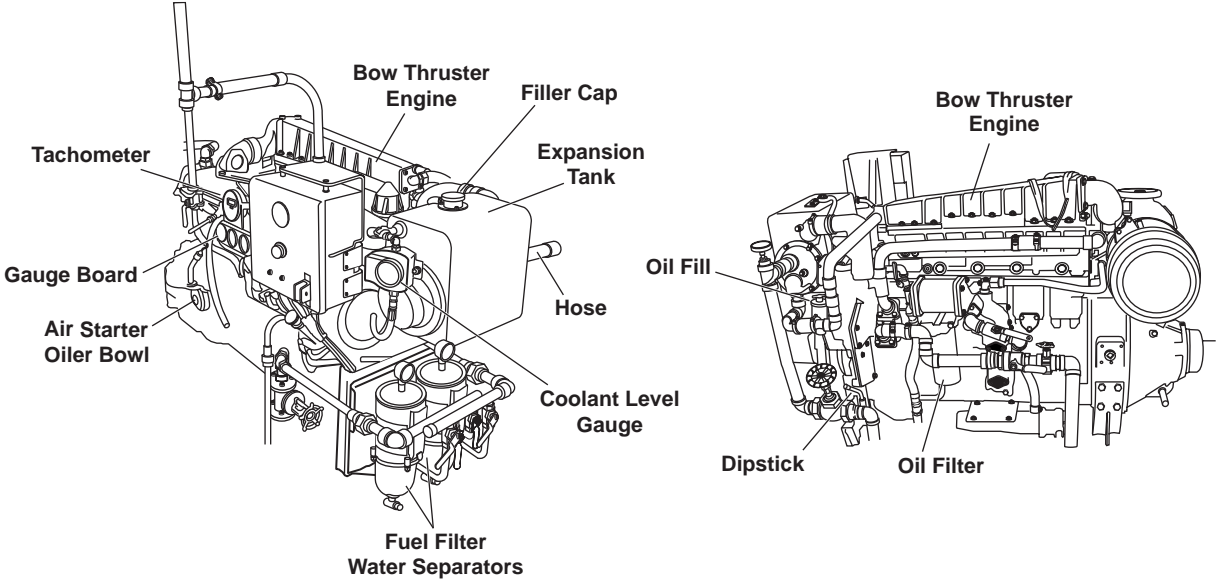


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			SLIDING HYDRAULIC WATERTIGHT DOOR		
47	Monthly	0.2	Oil Level	Check oil level dipstick in expansion tank (WP 0151 00) Add oil as required.	Low oil level.
48	Monthly	0.2	Hydraulic Cylinder Assembly	Inspect hydraulic cylinder assembly for leaks and damage.	Class III leaks exist. Unserviceable damage.
49	Monthly	0.2	Control Valve Assembly	Inspect hydraulic control valve assembly for leaks and damage.	Class III leaks exist. Unserviceable damage.
50	Monthly	0.2	Tracks	a. Visually inspect tracks for secure mounting and damage. b. Lubricate the tracks with general purpose grease (brush on).	Tracks damaged or not mounted securely.
51	Monthly	0.2	Rollers	Lubricate each roller with general purpose grease from a grease gun.	
52	Monthly	0.2	Local Hand Pump	Inspect local hand pump for secure mounting and damage.	
				<p style="text-align: center;"><b>NOTE</b></p> Local hand pump may have to be operated very fast to break door loose when initially opened.	
53	Monthly	0.2	Operation	Hand crank the door to the full OPEN/ CLOSED position.	Door will not open and/or close fully



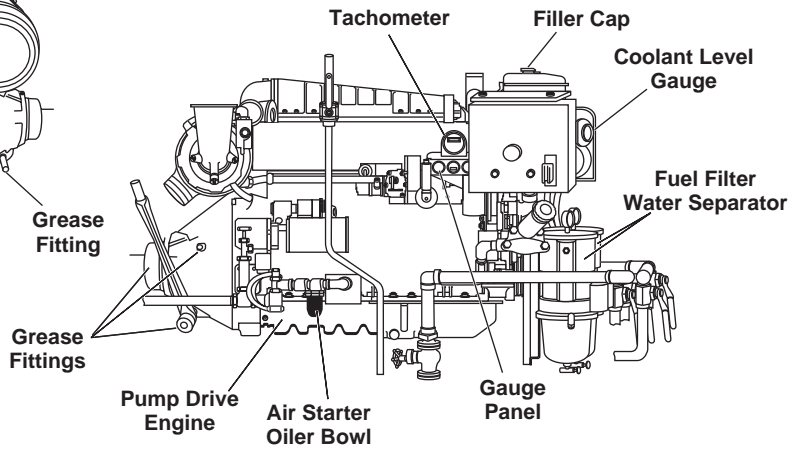
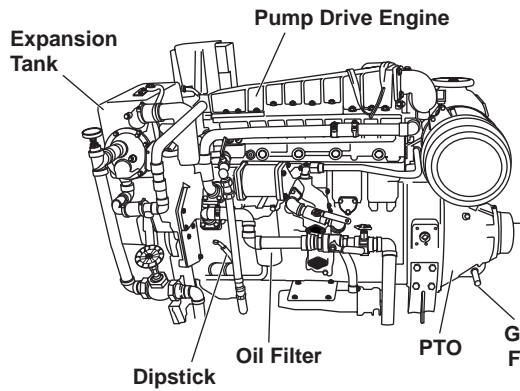
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
54	Semiannual	0.2	<p>BOW THRUSTER ENGINE AND MARINE GEAR</p> <p>Governor Control Linkage</p>	<p>Grease governor control linkage with general purpose grease.</p>	
<div style="display: flex; justify-content: space-around; align-items: center;">  </div>					



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
55	Semiannual	0.2	PUMP DRIVE ENGINE Governor Control Linkage	Grease governor control linkage with general purpose grease.	
56	Semiannual	0.2	PTO	Use grease gun to lube four fittings with general purpose grease.	



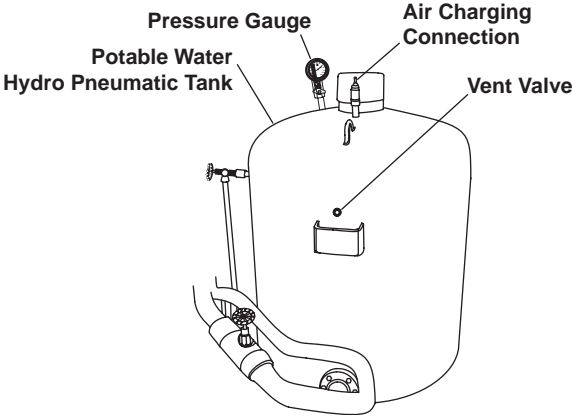
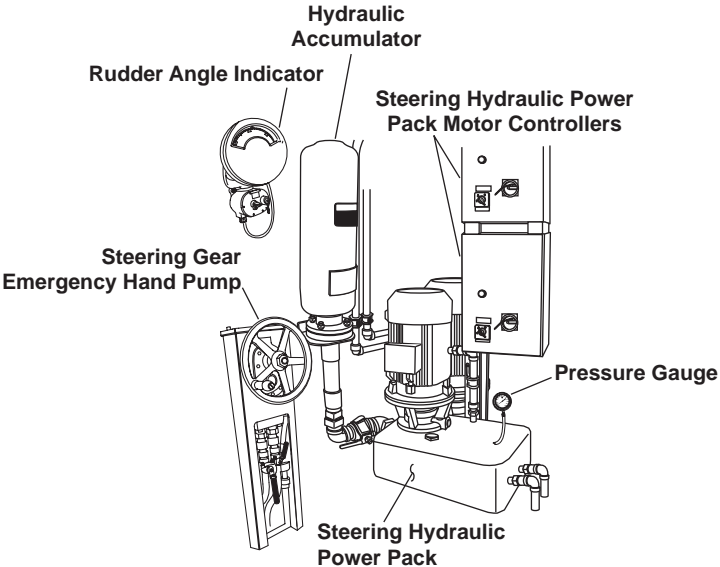
**Table 2. Lubricant and Coolant Specifications**

<b>Equipment</b>	<b>Lubricant or Coolant Specification</b>
Bow Thruster Engine Air Starter Oil	OE/HDO-10 (M2104-3-10W)
Bow Thruster Engine Coolant	50/50 mix of antifreeze and water
Bow Thruster Engine Governor Control Linkage	General Purpose Grease (MIL-PRF-24139)
Bow Thruster Engine Lube Oil	OE/HDO-30 (M2104-3-30W)
Bow Thruster Marine Gear	OE/HDO-30 (M2104-3-30W)
Hydraulic Watertight Door Rollers	General Purpose Grease (MIL-PRF-24139)
Hydraulic Watertight Door Tracks	General Purpose Grease (MIL-PRF-24139)
Pump Drive Engine Air Starter Oil	OE/HDO-10 (M2104-3-10W)
Pump Drive Engine Coolant	50/50 mix of antifreeze and water
Pump Drive Engine Governor Control Linkage	General Purpose Grease (MIL-PRF-24139)
Pump Drive Engine Lube Oil	OE/HDO-30 (M2104-3-30W)
Pump Drive Engine Power Take-Off (PTO) Bearings	General Purpose Grease (MIL-PRF-24139)

END OF WORK PACKAGE

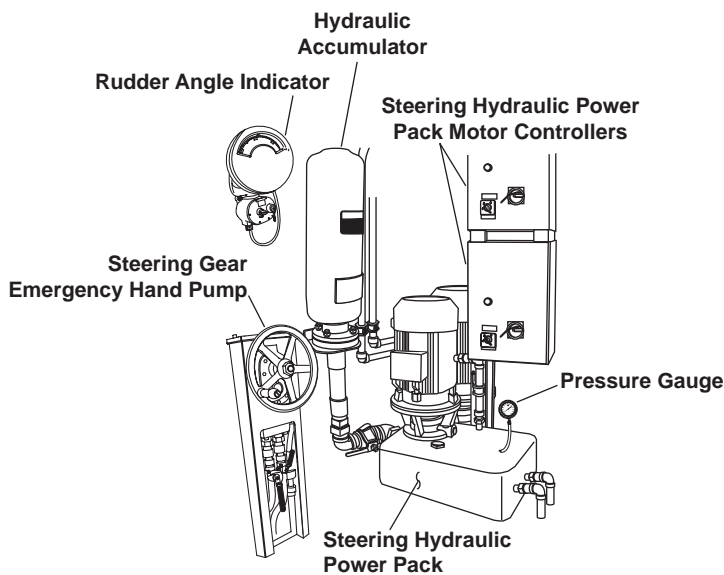
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
AMS 2**

**Table 1. Preventive Maintenance Checks and Services Chart**

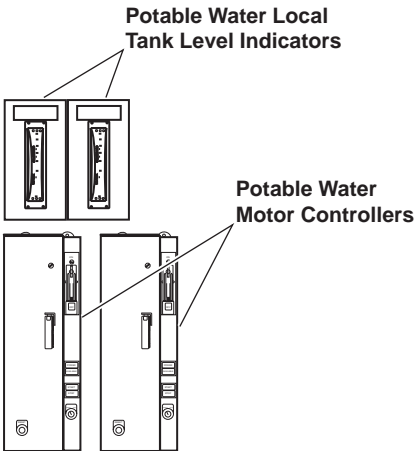
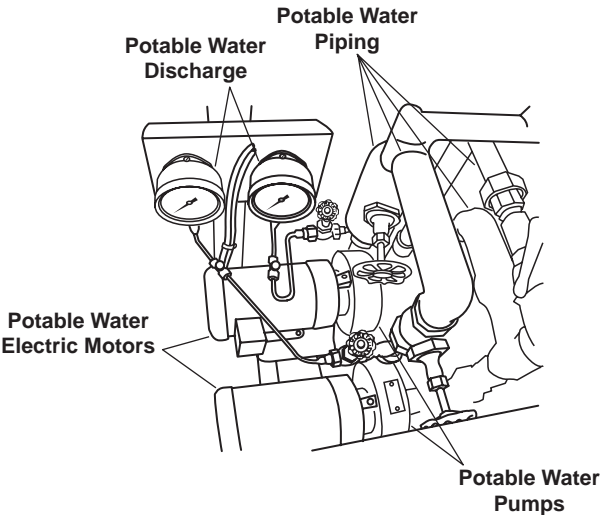
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	POTABLE WATER HYDRO-PNEUMATIC TANK	<p>Inspect tank, pressure gauge, pressure switches, and relief valve for leaks, damage, and secure mounting.</p> 	
2	Before	0.3	STEERING GEAR EMERGENCY HAND PUMP	<p>Inspect pump for secure mounting and leaks. Observe hand pump for smooth operation.</p> 	Class III leaks; not securely mounted. Pump does not operate smoothly.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.2	RUDDER ANGLE INDICATOR  STEERING HYDRAULIC POWER PACK	Ensure that dimmer is able to adjust light intensity. Rudder angle must align with wheel direction.	Rudder angle indicator is not operational.
4	Before	0.5	Hydraulic Pump Unit	Operate power pack in all modes and check for leaks. Check fluid level in main deck fan room (WP 0147 00).	Unit fails to operate.
5	Before	0.5	Rudder Angle Indicator	Rudder operates full port to starboard.	Rudder angle indicator fails to operate.
6	Before	0.5	Gauges	Check gauges for damage and proper operation.	Gauges fail to operate.
7	Before	0.5	STEERING HYDRAULIC POWER PACK MOTOR CONTROLLERS	Inspect motor controller for obvious damage or missing or broken switches.	Motor controllers fail to operate.

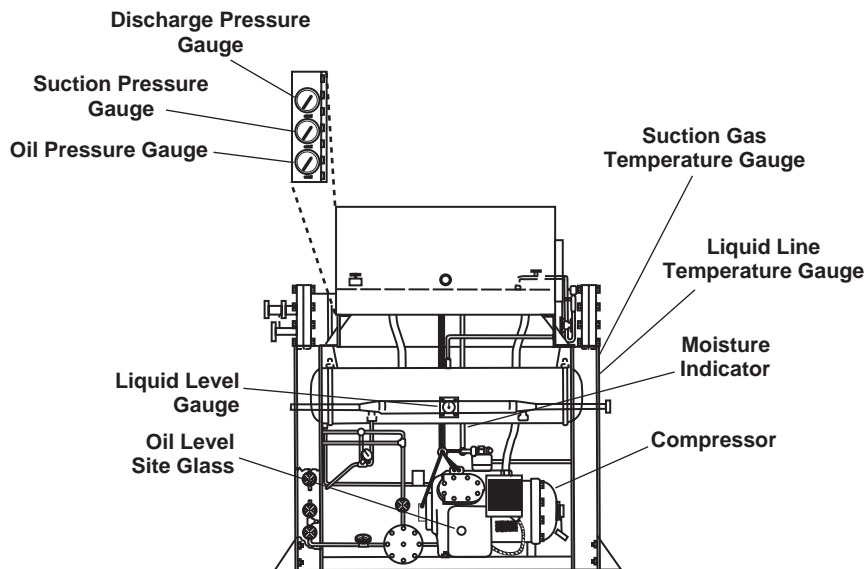


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	1.0	TANK LEVEL INDICATOR RECEIVERS	<p>Observe potable water level at local receiver. Compare reading with receiver panel in EOS.</p>  <p>The diagram shows two vertical panels. The top panel is labeled 'Potable Water Local Tank Level Indicators' and contains two vertical gauges. The bottom panel is labeled 'Potable Water Motor Controllers' and contains two vertical control units with various switches and indicators.</p>	Report any differences to unit maintenance.
9	Before	0.3	POTABLE WATER PUMPS	<p>Visually inspect pumps for leaks, loose connections and damage. Check discharge pressure gauges for normal readings from 30 to 60 PSI (2 to 4 bar)</p>  <p>The diagram shows a complex assembly of mechanical parts. Labels include 'Potable Water Discharge' pointing to a pipe on the left, 'Potable Water Piping' pointing to a network of pipes in the center, 'Potable Water Electric Motors' pointing to two circular motor units on the left, and 'Potable Water Pumps' pointing to the main pump assembly at the bottom right.</p>	If both pumps fail to operate.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

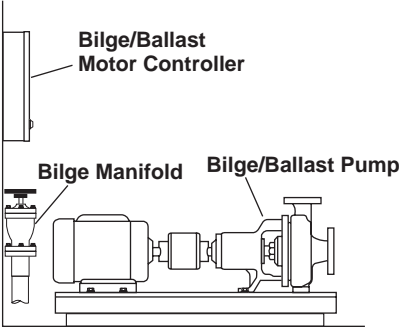
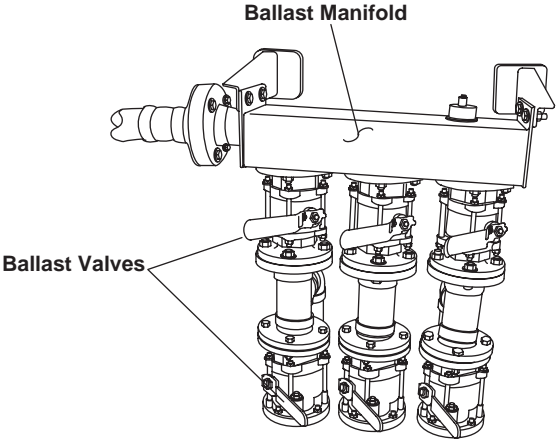
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			AIR CONDITIONING CONDENSING UNITS		If both units fail to operate.
10	Before	0.5	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
11	Before	0.5	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
12	Before	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	
			REFRIGERATION CONDENSING UNITS		
13	Before	0.3	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
14	Before	0.3	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
15	Before	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Before	0.5	BILGE MANIFOLD	Visually inspect manifold for cracks, leaks, and secure mounting.	Class III leaks or loose mounting.
17	Before	0.5	FIRE AND GENERAL SERVICE PUMPS	<p>a. Check pumps, couplings, and sea chest valves for proper operation. Sea chest is clogged when suction pressure is greater than 10 in Hg (254 mm Hg).</p> <p>b. Check gauges for normal readings. Fire main discharge pressure should be 60 to 120 PSI (4.1 to 8.3 bar) against dead head.</p> <p>c. General service pressure should be greater than 60 PSI (4.1 bar) under normal operating conditions.</p> <div style="text-align: center;"> </div>	<p>Sea chest cannot be cleared, and suction pressure cannot be lowered below 10 in Hg (254 mm Hg).</p> <p>Fire main discharge pressure above 120 PSI (8.3 bar) or below 60 PSI (4.1 bar).</p> <p>Unable to maintain general service discharge pressure at 60 PSI (4.1 bar) under normal operating conditions.</p>

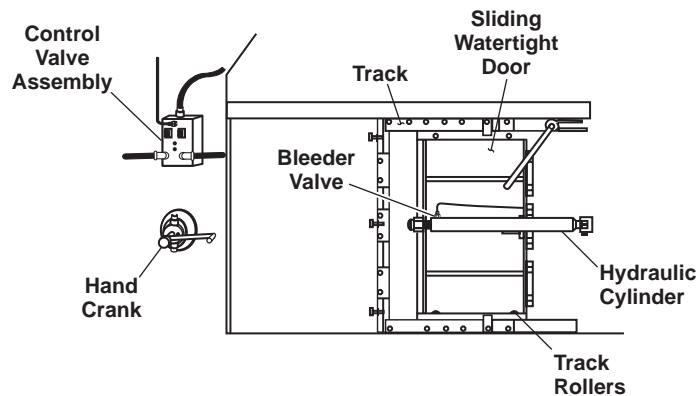
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
18	Before	1.0	BILGE/BALLAST PUMP	<p>Visually check oil level sight gauge (1/2 full). Inspect pumps, couplings for leaks, loose connections, and damage.</p>  <p>The diagram shows a side view of the Bilge/Ballast Pump assembly. A vertical component on the left is labeled 'Bilge/Ballast Motor Controller'. Below it, a horizontal pipe is labeled 'Bilge Manifold'. To the right of the manifold is the 'Bilge/Ballast Pump' unit, which consists of a motor and a pump housing.</p>	Pump is defective or fails to operate.
19	Before	0.5	BALLAST MANIFOLD	<p>Visually inspect manifold for cracks, leaks, or secure mounting. Check for proper operation of valves. Valves should move freely through entire range of motion.</p>  <p>The diagram shows a perspective view of the Ballast Manifold. It is a long horizontal pipe with several valves attached to its bottom. The manifold is labeled 'Ballast Manifold' and the individual valves are labeled 'Ballast Valves'. Each valve has a handwheel for manual operation.</p>	Class III leaks or loose mounting.



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

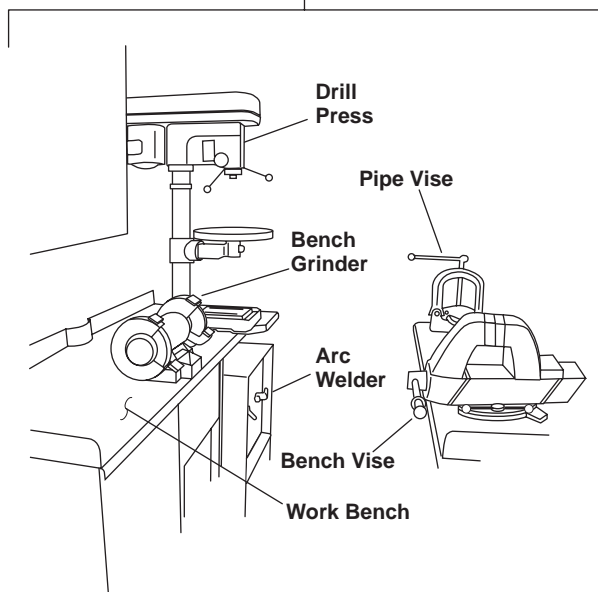
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
20	Before	1.1	SLIDING HYDRAULIC WATERTIGHT DOOR	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Do not operate door with pressure shutoff valves closed as this will back-pressure the local hand pump and cause the seals to rupture.</p> <p style="text-align: center;">NOTE</p> <p>Local hand pump may have to be operated very fast to break door loose when initially opened.</p>	
21	Before	1.1		<p>Operate hand crank-operated door to full open/closed position. Check oil level in reservoir (WP 0148 00).</p>	Door will not open and/or close fully.



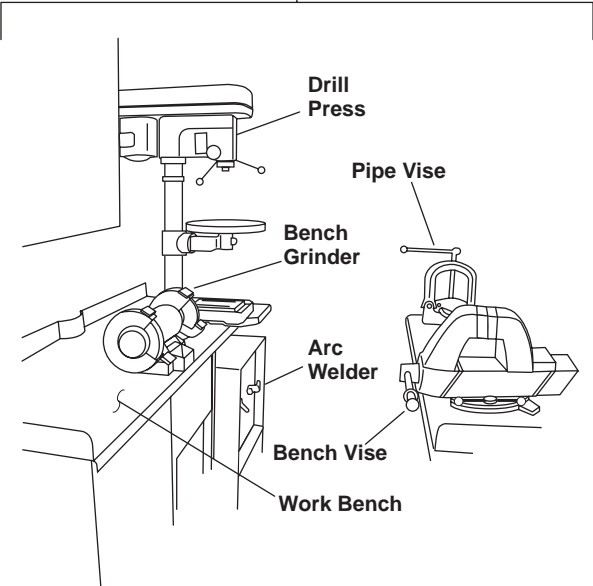
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
22	Before	1.0	WORKSHOP TOOLS AND ASSOCIATED EQUIPMENT	Ensure that all tools, spare parts, and equipment belonging to the craft are available, clean, serviceable, and properly mounted or stowed.	
23	Before	0.2	VENT HOOD  Hood  ARC WELDER	Inspect hood for cleanliness. Clean as required.  <div style="border: 1px solid black; padding: 5px; text-align: center;"><b>WARNING</b></div> <b>Allow cooling period before servicing. Hot surfaces can cause severe burns.</b>	
24	Before	0.2	Labels	Inspect labels on unit for legibility. All warning labels must be clearly readable. Refer damaged or unreadable labels to unit maintenance.	
25	Before	0.2	Weld Cables	<div style="border: 1px solid black; padding: 5px; text-align: center;"><b>WARNING</b></div> <b>Shut OFF power supply before removing covers. Electric shock can kill.</b>  Inspect cables for breaks in insulation. Repair or replace damaged cables. Clean and tighten connections.	

**Workshop**

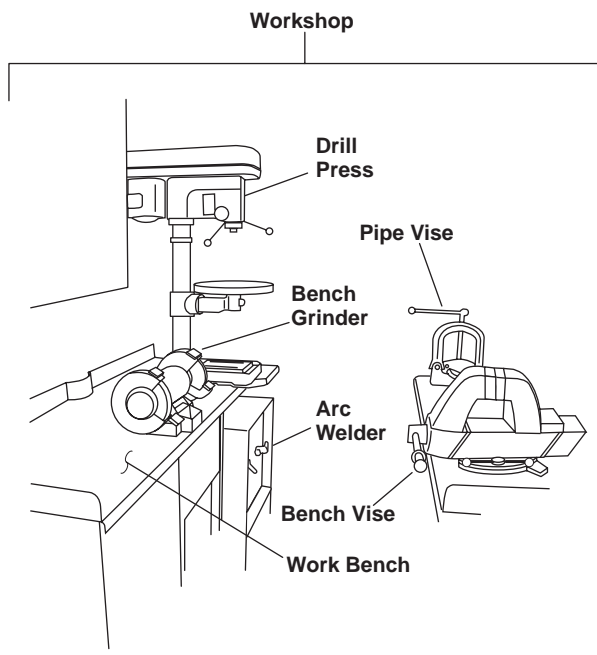


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
26	Before	0.2	DRILL PRESS	<p>Check that safety glasses and dust mask are available and serviceable.</p> <div style="border: 2px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Do not use hand bits which have a screw tip. At drill press speeds they turn into the wood so rapidly as to lift the work off the table and whirl it.</b></p>	
27	Before	0.2	Belt and Pulley	<p style="text-align: center;">NOTE</p> <p>Drill press housing cover must be removed.</p> <p>Check for worn or frayed belts, frayed electrical wiring or power cord, loose connections, missing bits and pieces, worn or damaged pulleys, dirt buildup, and corrosion.</p>	
28	Before	0.2	Table	<p>Check that 360° table swing is unobstructed. Lubricate with GGP as necessary.</p>	
<p><b>Workshop</b></p> 					

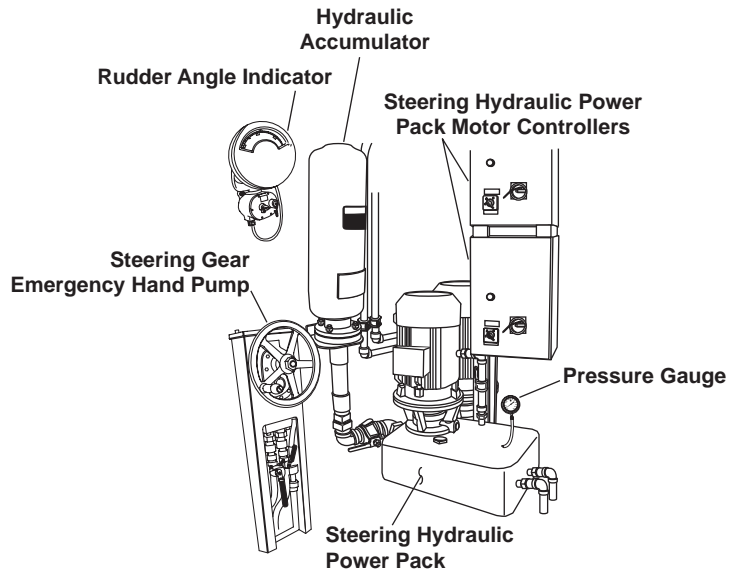
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
29	Before	0.2	Associated Equipment	Check that faceshields and dust masks are available and serviceable.	
30	Before	0.2	Wheels	Visually check that grinding wheels are serviceable.	
31	Before	0.2	Tool Rest	Visually check that tool rest is in correct position and is securely mounted.	
32	Before	0.2	Spark Guard	Visually check that spark guard is clear, undamaged and securely mounted.	
33	Before	0.2	WET/DRY VACUUM	Check hose for wear and serviceability.	
34	Before	0.2	CUTTING TORCH OUTFIT (OXY-ACT)	Check that welding glasses are available and serviceable.	
35	Before	0.2		Inspect cylinders, regulator valves, and gauges for obvious damage. Verify that cylinders are properly stowed for sea.	
36	Before	0.2		Regulator valves operate smoothly.	

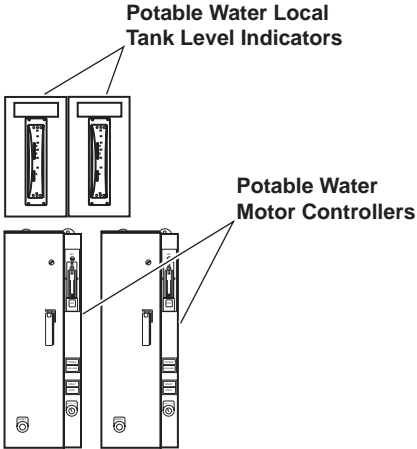
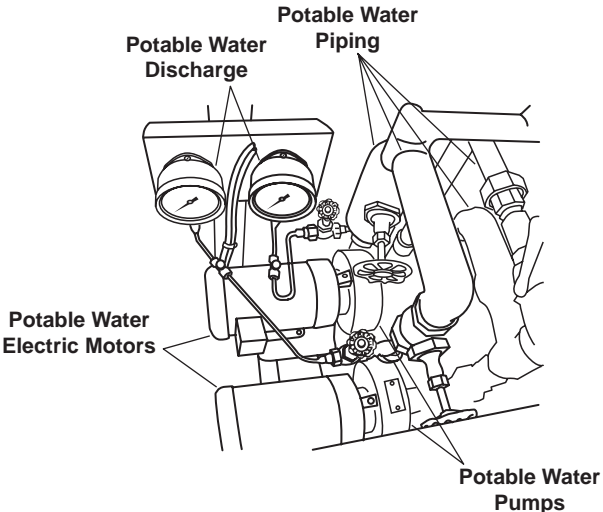


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
37	During	0.2	Hydraulic Pump Unit	Operate power pack in all modes and check for leaks.	Unit fails to operate. Class III leaks.
38	During	0.2	Gauges	Check gauges for damage and proper operation.	Gauges fail to operate.
39	During	0.5	STEERING HYDRAULIC POWER PACK MOTOR CONTROLLERS	Inspect motor controller for obvious damage or missing or broken switches. Obvious damage or missing or broken switches.	Motor controllers fail to operate.

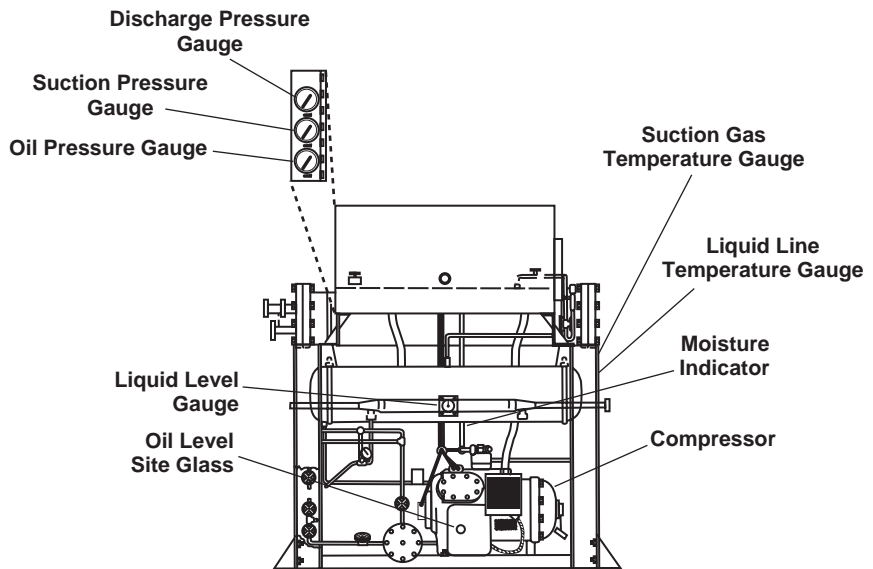


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
40	During	1.0	TANK LEVEL INDICATOR RECEIVERS	<p>Observe potable water level at local receiver. Compare reading with receiver panel in EOS.</p>  <p>The diagram shows two vertical tank level indicators at the top, each with a scale and a float. Below them are two electrical control panels, each with a vertical scale and a float, representing motor controllers.</p>	Report any differences to unit
41	During	0.3	POTABLE WATER PUMPS	<p>Visually inspect pumps for leaks, loose connections and damage. Check discharge pressure gauges for normal readings from 30 to 60 PSI (2 to 4 bar).</p>  <p>The diagram shows a complex assembly of mechanical parts. It includes two circular gauges on the left, a central pump unit with a motor, and various pipes and valves. Labels point to the discharge, piping, electric motors, and pumps.</p>	If both pumps fail to operate.

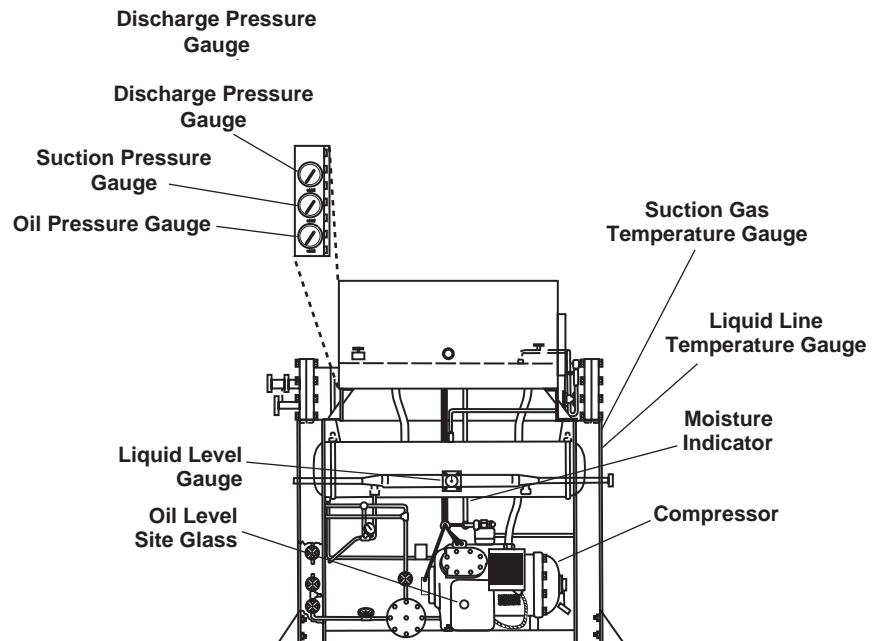
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p><b>AIR CONDITIONING CONDENSING UNITS</b></p>		<p>If both units fail to operate.</p>
42	During	0.5	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
43	During	0.5	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
44	During	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	
45	During	0.2	Discharge Pressure Gauge	Record pressure hourly during operation.	
46	During	0.2	Suction Pressure Gauge	Record pressure hourly during operation.	
47	During	0.2	Oil Pressure Gauge	Reading should be 45 to 55 PSI (3.1 to 3.8 bar) above suction pressure.	
48	During	0.2	Inlet Water Temperature	Record pressure hourly during operation.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

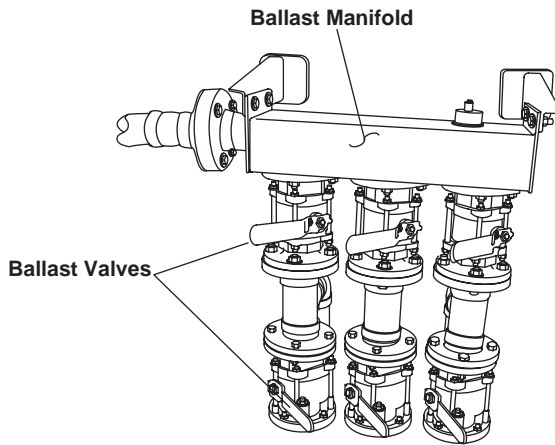
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
49	During	0.2	Outlet Water Temperature	Record pressure hourly during operation.	
50	During	0.2	Suction Gas Temperature	Record pressure hourly during operation.	
51	During	0.2	Liquid Line Temperature	Record pressure hourly during operation.	
<b>REFRIGERATION CONDENSING UNITS</b>					
52	During	0.5	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
53	During	0.5	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
54	During	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	
55	During	0.2	Discharge Pressure Gauge	Record pressure hourly during operation.	



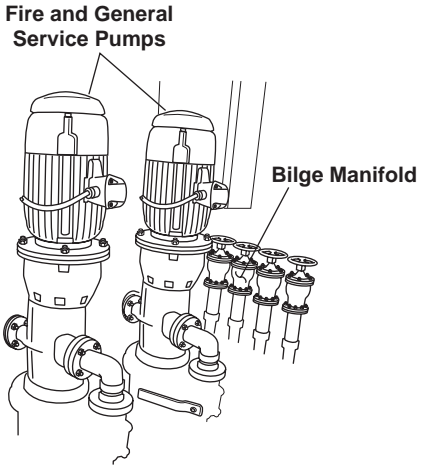
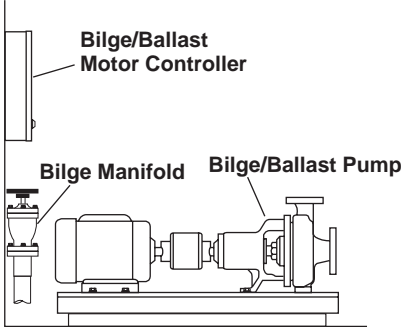


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

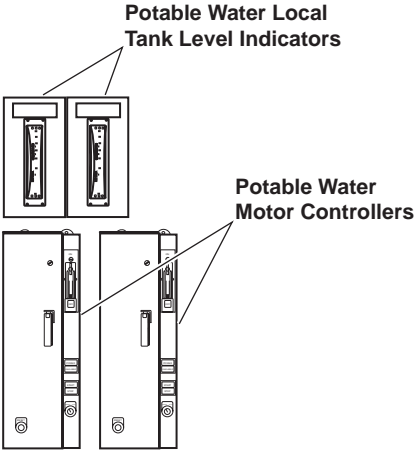
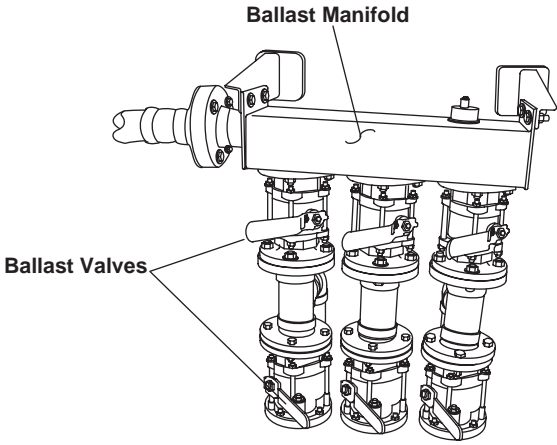
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
56	During	0.2	Suction Pressure Gauge	Record pressure hourly during operation.	
57	During	0.2	Oil Pressure Gauge	Reading should be 45 to 55 PSI (3.1 to 3.8 bar) above suction pressure.	
58	During	0.2	Inlet Water Temperature	Record pressure hourly during operation.	
59	During	0.2	Outlet Water Temperature	Record pressure hourly during operation.	
60	During	0.2	Suction Gas Temperature	Record pressure hourly during operation.	
61	During	0.2	Liquid Line Temperature	Record pressure hourly during operation.	
62	During	0.2	Walk-in Freezer	Record pressure hourly during operation.	
63	During	0.2	Chill Box	Record pressure hourly during operation.	
64	During	0.2	Thaw Room	Record pressure hourly during operation.	
65	During	0.5	BILGE MANIFOLD	Visually inspect manifold for cracks, leaks, and secure mounting.	Class III leaks or loose mounting.



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

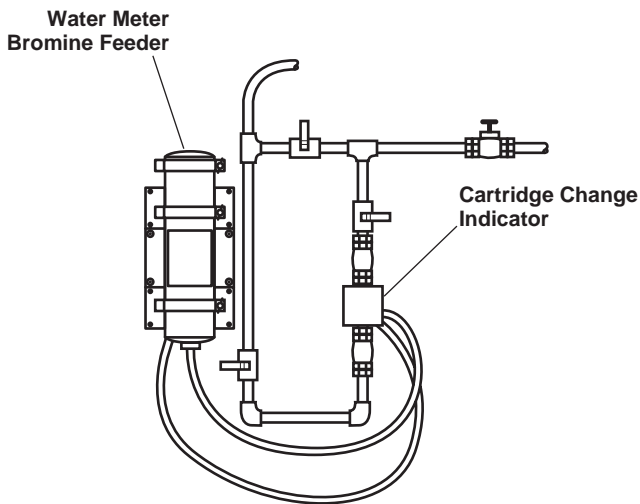
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
66	During	0.5	FIRE AND GENERAL SERVICE PUMPS	<p>a. Check pumps, couplings, and sea chest valves for proper operation. Sea chest is clogged when suction pressure is greater than 10 in Hg (254 mm Hg)</p> <p>b. Check gauges for normal readings. Fire main discharge pressure should be 60 to 120 PSI (4.1 to 8.3 bar) against dead head.</p> <p>c. General service pressure should be greater than 60 PSI (4.1 bar) under normal operating conditions.</p>  <p>The diagram shows two vertical pumps with electric motors on top, connected to a manifold with several valves. Labels include 'Fire and General Service Pumps' and 'Bilge Manifold'.</p>	<p>Sea chest cannot be cleared, and suction pressure cannot be lowered below 10 in Hg (254 mm Hg).</p> <p>Fire main discharge pressure above 120 PSI (8.3 bar) or below 60 PSI (4.1 bar).</p> <p>Unable to maintain general service discharge pressure at 60 PSI (4.1 bar) under normal operating conditions.</p>
67	During	1.0	BILGE/BALLAST PUMP	<p>Visually check oil level sight gauge (1/2 full). Inspect pumps, couplings for leaks, loose connections, and damage.</p>  <p>The diagram shows a horizontal pump assembly with a motor and a control box. Labels include 'Bilge/Ballast Motor Controller', 'Bilge Manifold', and 'Bilge/Ballast Pump'.</p>	<p>Pump is defective or fails to operate.</p>

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
68	During	1.0	TANK LEVEL INDICATOR RECEIVERS	<p>Observe potable water level at local receiver. Compare reading with receiver panel in EOS.</p>  <p>The diagram shows two vertical tank level indicators at the top, each with a scale and a float. Below them are two motor controller units, each with a vertical scale and a float. Labels with leader lines point to the indicators and controllers.</p>	Report any differences to unit maintenance.
69	During	0.5	BALLAST MANIFOLD	<p>Visually inspect manifold for cracks, leaks, or secure mounting.</p>  <p>The diagram shows a horizontal ballast manifold with three vertical ballast valves attached. Each valve has a handle and a float. Labels with leader lines point to the manifold and the valves.</p>	Class III leaks or loose mounting.

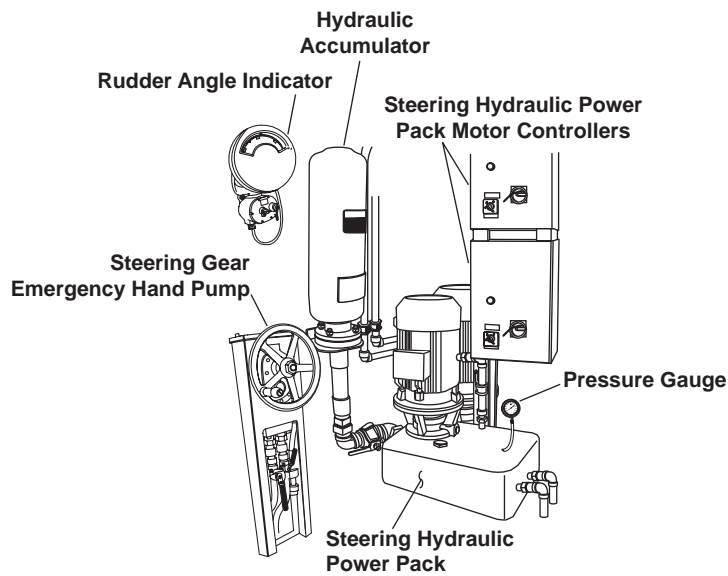
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
70	During		BROMIDE FEEDER  Piping	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Do not come in contact with water from the bromide feeder. Burns, serious injury, or death could occur.</b></p> <p>Inspect for leaks and broken, loose or missing parts.</p>	
71	During		Cartridge Change Indicator	<p>Check that cartridge change indicator is out. If indicator is lit, refer to unit maintenance to replace cartridge.</p>	



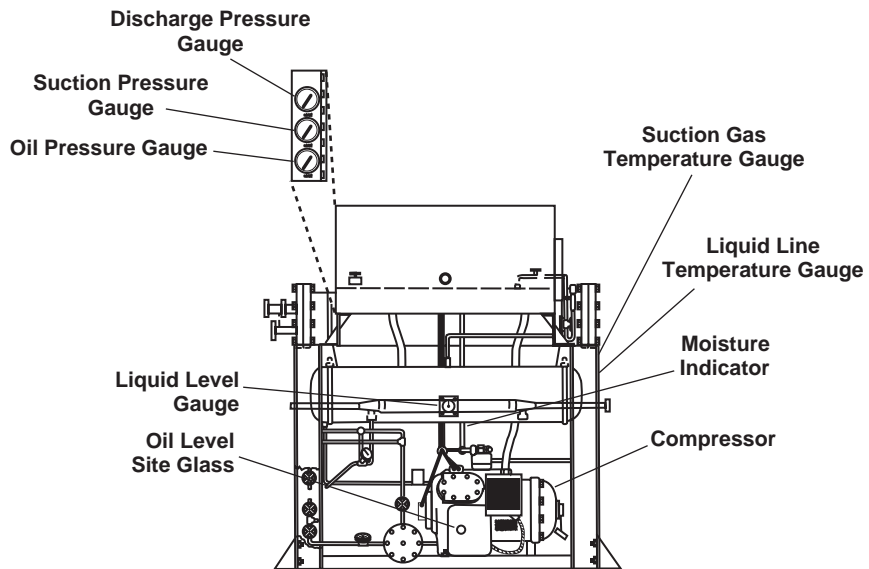
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
72	During	0.2	VENT HOOD Hood	Inspect hood for cleanliness. Clean as required.	
73	During	0.2	WET/DRY VACUUM	Visually check vacuum unit for signs of wear, dirt buildup, damage, and corrosion.	
74	During	0.2	CUTTING TORCH OUTFIT (OXY-ACT)	Regulator valves operate smoothly.	
75	After	0.2	STEERING HYDRAULIC POWER PACK Hydraulic Pump Unit	Operate power pack in all modes and check for leaks. Check fluid level in main deck fan room (WP 0147 00).	Unit fails to operate.

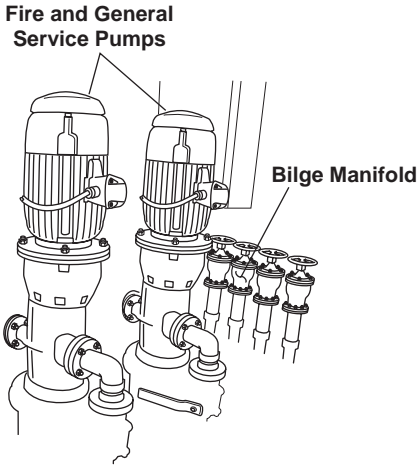
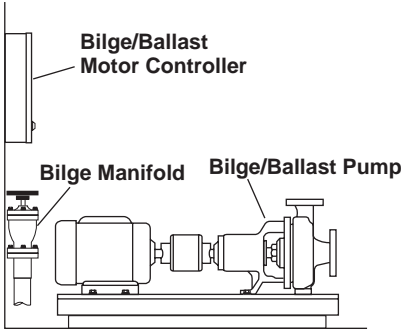


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

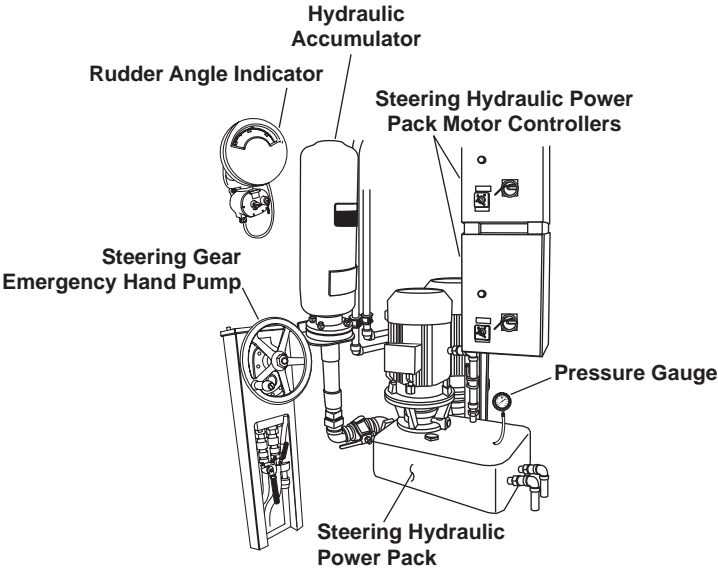
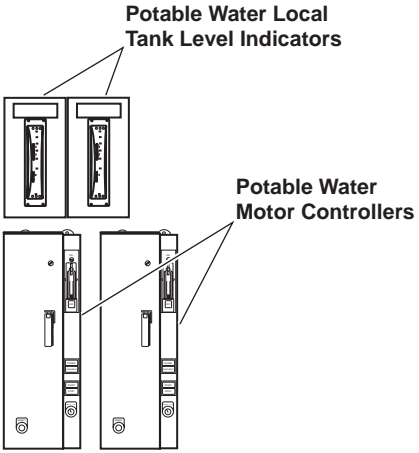
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p>AIR CONDITIONING CONDENSING UNITS</p>		<p>If both units fail to operate.</p>
76	After	0.5	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
77	After	0.5	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
78	After	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	
			<p>REFRIGERATION CONDENSING UNITS</p>		
79	After	0.2	Liquid Level Refrigerant	Check the oil level in the sight glass. The level should be 1/8 to 1/2 full.	Oil level is low.
80	After	0.5	Oil Level Sight Glass	Check the oil level in the oil level sight glass. The level should be 1/4 to 3/4 full.	Oil level is low.
81	After	0.3	Moisture Indicator	Check the moisture indicator. It should be BLUE. Notify unit maintenance if the moisture indicator is PINK.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

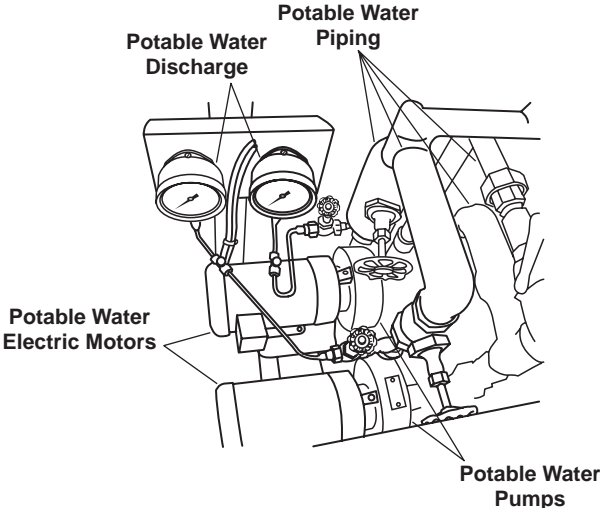
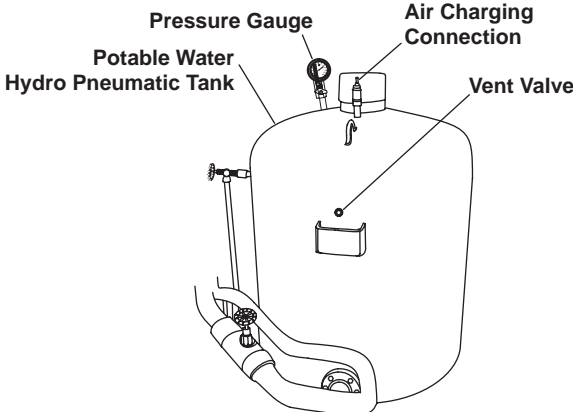
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
82	After	0.5	FIRE AND GENERAL SERVICE PUMPS	<p>a. Check pumps, couplings, and sea chest valves for proper operation. Sea chest is clogged when suction pressure is greater than 10 in Hg (254 mm Hg)</p> <p>b. Check gauges for normal readings. Fire main discharge pressure should be 60 to 120 PSI (4.1 to 8.3 bar) against dead head.</p> <p>c. General service pressure should be greater than 60 PSI (4.1 bar) under normal operating conditions.</p>  <p>The diagram shows two vertical pumps labeled 'Fire and General Service Pumps' connected to a 'Bilge Manifold' which has several smaller pumps or valves.</p>	<p>Sea chest cannot be cleared, and suction pressure cannot be lowered below 10 in Hg (254 mm Hg).</p> <p>Fire main discharge pressure above 120 PSI (8.3 bar) or below 60 PSI (4.1 bar).</p> <p>Unable to maintain general service discharge pressure at 60 PSI (4.1 bar) under normal operating conditions.</p>
83	After	1.0	BILGE/BALLAST PUMP	<p>Visually check oil level sight gauge (1/2 full). Inspect pumps, couplings for leaks, loose connections, and damage.</p>  <p>The diagram shows a 'Bilge/Ballast Motor Controller' mounted on a wall, connected to a 'Bilge/Ballast Pump' which is connected to a 'Bilge Manifold'.</p>	<p>Pump is defective or fails to operate.</p>

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
84	After	0.2	VENT HOOD Hood	Inspect hood for cleanliness. Clean as required.	
85	Weekly	0.2	RUDDER ANGLE INDICATOR	Ensure that dimmer is able to adjust light intensity. Rudder angle must align with wheel direction.	Rudder angle indicator is not operational.
86	Weekly	1.0	TANK LEVEL INDICATOR RECEIVERS	 <p>Observe potable water level at local receiver. Compare reading with receiver panel in EOS.</p>	Report any differences to unit maintenance.
					

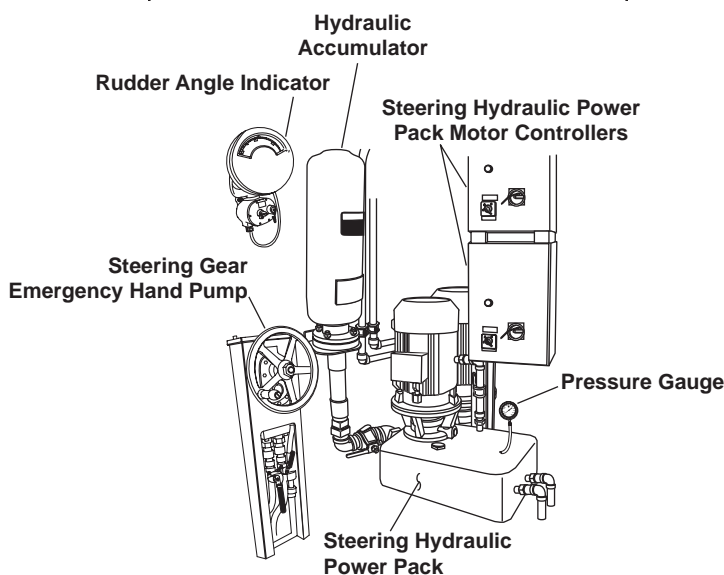


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

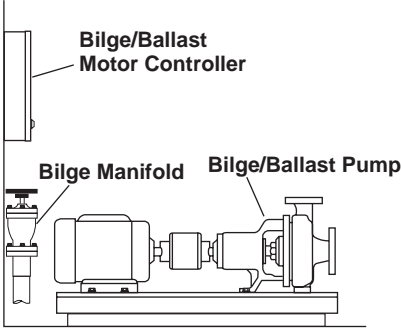
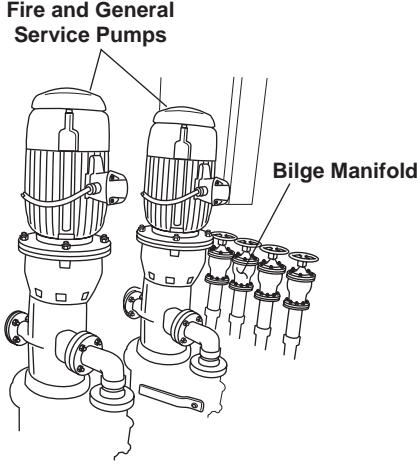
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
87	Weekly	0.3	POTABLE WATER PUMPS	<p>Visually inspect pumps for leaks, loose connections and damage. Check discharge pressure gauges for normal readings from 30 to 60 PSI (2 to 4 bar).</p> 	Both pumps fail to operate.
88	Monthly	0.2	POTABLE WATER HYDRO-PNEUMATIC TANK	<p>Inspect tank, pressure gauge, pressure switches, and relief valve for leaks, damage, and secure mounting.</p> 	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

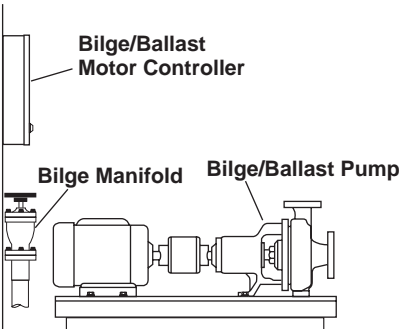
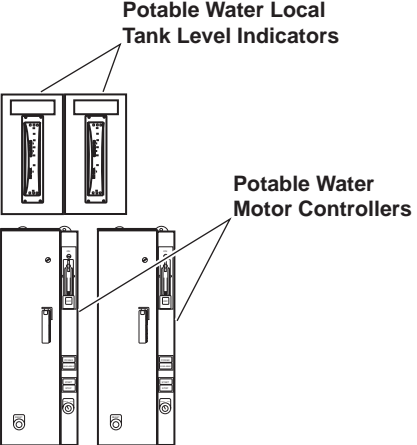
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
89	Monthly	0.3	STEERING GEAR EMERGENCY HAND PUMP	Inspect pump for secure mounting and leaks. Observe hand pump for smooth operation.	Class III leaks; not securely mounted. Pump does not operate smoothly.
90	Monthly	0.2	STEERING HYDRAULIC POWER PACK Hydraulic Pump Unit	Operate power pack in all modes and check for leaks. Check fluid level in main deck fan room (WP 0147 00).	Unit fails to operate.
91	Monthly	0.2	Rudder	Rudder operates full port to starboard. Lube rudder shafts (WP 0145 00).	Rudder fails to operate.
92	Monthly	0.2	Gauges	Check gauges for damage and proper operation.	Gauges fail to operate.
93	Monthly	0.5	STEERING HYDRAULIC POWER PACK MOTOR CONTROLLERS	Inspect motor controller for obvious damage or missing or broken switches.	Motor controllers fail to operate. Obvious damage or missing or broken switches.



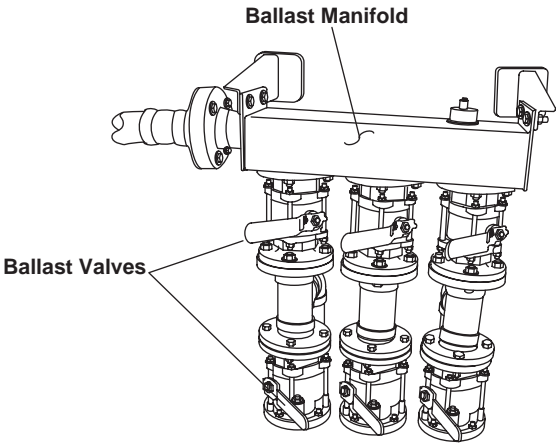
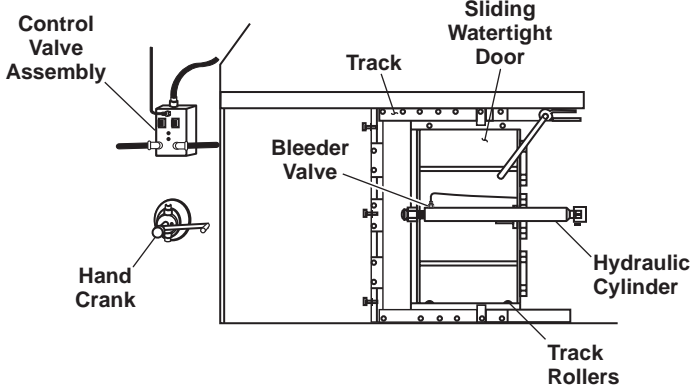
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
94	Monthly	0.5	BILGE MANIFOLD	<p>Visually inspect manifold for cracks, leaks, and secure mounting.</p>  <p>The diagram shows a side view of the bilge manifold assembly. At the top left is a vertical rectangular box labeled 'Bilge/Ballast Motor Controller'. Below it, a horizontal pipe labeled 'Bilge Manifold' connects to a cylindrical pump labeled 'Bilge/Ballast Pump'.</p>	Class III leaks or loose mounting.
95	Monthly	0.5	FIRE AND GENERAL SERVICE PUMPS	<p>a. Check pumps, couplings, and sea chest valves for proper operation. Sea chest is clogged when suction pressure is greater than 10 in Hg (254 mm Hg)</p> <p>b. Check gauges for normal readings. Fire main discharge pressure should be 60 to 120 PSI (4.1 to 8.3 bar) against dead head.</p> <p>c. General service pressure should be greater than 60 PSI (4.1 bar) under normal operating conditions.</p> <p>d. Apply 1-2 pumps of general purpose grease to the grease fittings located on each end of the electric motor and on the input shaft housing of the pump.</p>  <p>The diagram shows two vertical pumps labeled 'Fire and General Service Pumps' on the left. To their right is a 'Bilge Manifold' with several horizontal pipes and valves.</p>	<p>Sea chest cannot be cleared, and suction pressure cannot be lowered below 10 in Hg (254 mm Hg).</p> <p>Fire main discharge pressure above 120 PSI (8.3 bar) or below 60 PSI (4.1 bar).</p> <p>Unable to maintain general service at 50 lb/in<sup>2</sup> (3.45 bar) under normal operating conditions</p>

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
96	Monthly	1.0	BILGE/BALLAST PUMP	<p>Visually check oil level sight gauge (1/2 full). Inspect pumps, couplings for leaks, loose connections, and damage.</p>  <p>The diagram shows a Bilge/Ballast Pump assembly. It includes a vertical Bilge/Ballast Motor Controller on the left, connected to a Bilge Manifold. The manifold is connected to the Bilge/Ballast Pump, which is mounted on a base. Labels with leader lines point to the Motor Controller, Manifold, and Pump.</p>	Pump is defective or fails to operate.
97	Monthly	1.0	TANK LEVEL INDICATOR RECEIVERS	<p>Observe potable water level at local receiver. Compare reading with receiver panel in EOS.</p>  <p>The diagram shows two Potable Water Local Tank Level Indicators at the top, which are vertical gauges. Below them are two Potable Water Motor Controllers, which are larger electrical cabinets with doors and control panels. Labels with leader lines point to the indicators and controllers.</p>	Report any differences to unit maintenance.

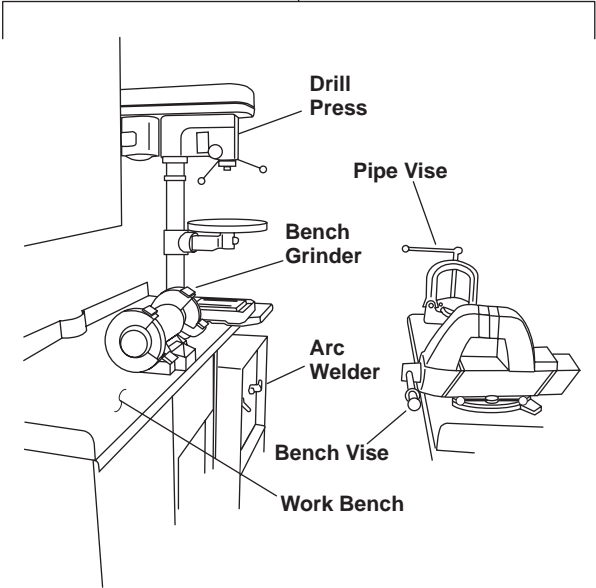
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
98	Monthly	0.2	BALLAST MANIFOLD	<p>Visually inspect manifold for cracks, leaks, or secure mounting.</p>  <p style="text-align: center;"><b>CAUTION</b></p> <p>Do not operate door with pressure shutoff valves closed as this will back-pressure the local hand pump and cause the seals to rupture.</p>	Class III leaks or loose mounting.
			SLIDING HYDRAULIC WATERTIGHT DOOR		
99	Monthly	0.2	Oil Level	Check oil level dipstick in reservoir (WP 0148 00). Add oil as required.	Low oil level.
100	Monthly	0.2	Hydraulic Cylinder Assembly	Inspect hydraulic cylinder assembly for leaks and damage.	Class III leaks exist. Unserviceable damage.
101	Monthly	0.2	Control Valve Assembly	<p>Inspect hydraulic control valve assembly for leaks and damage.</p> 	Class III leaks exist. Unserviceable damage.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
102	Monthly	0.2	Tracks	Visually inspect tracks for secure mounting and damage. Grease rollers and tracks with general purpose grease. Rollers are pressure lubricated, tracks are brush lubricated.	Tracks damaged or not mounted securely.
103	Monthly	0.2	Local Hand Pump	Inspect local hand pump for secure mounting and damage.  NOTE Local hand pump may have to be operated very fast to break door loose when initially opened.	
104	Monthly	0.2	Door	Operate hand crank-operated door to full open/closed position.	Door will not open and/or close fully.
105	Monthly	1.0	WORKSHOP TOOLS AND ASSOCIATED EQUIPMENT  VENT HOOD	Ensure that all tools, spare parts, and equipment belonging to the craft are available, clean, serviceable, and properly mounted or stowed.	
106	Monthly		Hood	Inspect hood for cleanliness. Clean as required.	
107	Monthly		Hood Mounting	Inspect hood for secure mounting.	

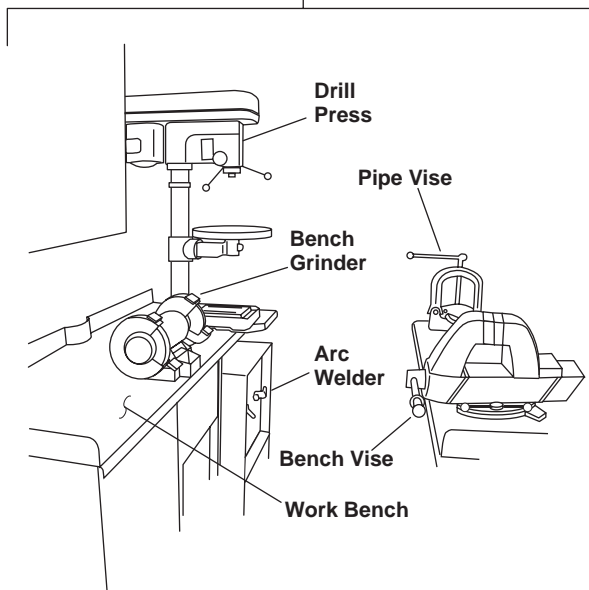
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
108	Monthly	0.2	ARC WELDER  Labels	<p style="text-align: center;"><b>WARNING</b></p> <p><b>Allow cooling period before servicing. Hot surfaces can cause severe burns.</b></p> <p>Inspect labels on unit for legibility. All warning labels must be clearly readable. Refer damaged or unreadable labels to unit maintenance.</p>	
109	Monthly	0.2	Weld Cables	<p style="text-align: center;"><b>WARNING</b></p> <p><b>Shut OFF power supply before removing cables. Electric shock can kill.</b></p> <p>Inspect cables for breaks in insulation. Repair or replace damaged cables. Clean and tighten connections.</p>	
110	Monthly	0.2	Internal Cleaning	<p>Vacuum dust and dirt from inside of welding machine. If dirty or dusty conditions are present, clean more frequently.</p>	<p style="text-align: center;">Workshop</p> 

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
111	Monthly	0.2	DRILL PRESS Belt and Pulley	<p style="text-align: center;">NOTE</p> Drill press housing cover must be removed. <ol style="list-style-type: none"> <li>a. Check for worn or frayed belts, frayed electrical wiring or power cord, loose connections, missing bits and pieces, worn or damaged pulleys, dirt buildup, and corrosion.</li> <li>b. Check that drive belt tension is correct. If loose, refer to unit maintenance.</li> <li>c. Check that spindle and motor pulleys are tight and secure.</li> </ol>	Belts worn or frayed or electrical connections/wiring unserviceable.
112	Monthly	0.2	Table/Crank	<ol style="list-style-type: none"> <li>a. Check that table vertical travel is smooth and unobstructed. Lubricate with general purpose grease as necessary.</li> </ol>	

Workshop





**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
113	Monthly	0.2	Spindle	b. Check that 360° table swing is unobstructed. Lubricate with general purpose grease as necessary. c. Check that table tilts in either direction a. Check that spindle vertical travel is smooth and unobstructed. Lubricate with SAE-30 oil as necessary. b. Lubricate side bars with general purpose grease as necessary.	
114	Monthly	0.2	Associated Equipment	Check that faceshields and dust masks are available and serviceable.	
115	Monthly	0.2	Wheels	Visually check that grinding wheels are serviceable.	
116	Monthly	0.2	Spark Guard	Visually check that spark guard is clear, undamaged and securely mounted.	

**Workshop**

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
117	Monthly	0.2	WET/DRY VACUUM	Visually check vacuum unit for signs of wear, dirt buildup, damage, and corrosion.	
118	Monthly	0.2		Check accessories kit for worn and broken attachments.	
119	Monthly	0.2		Check extension wands for signs of wear, damage and corrosion.	
120	Monthly	0.2		Check hose for wear and serviceability.	
121	Monthly	0.2	CUTTING TORCH OUTFIT (OXY-ACT)	Inspect cylinders, regulator valves, and gauges for obvious damage. Verify that cylinders are properly stowed for sea.	
122	Monthly	0.2		Regulator valves operate smoothly.	

**Table 2. Lubricant Specifications**

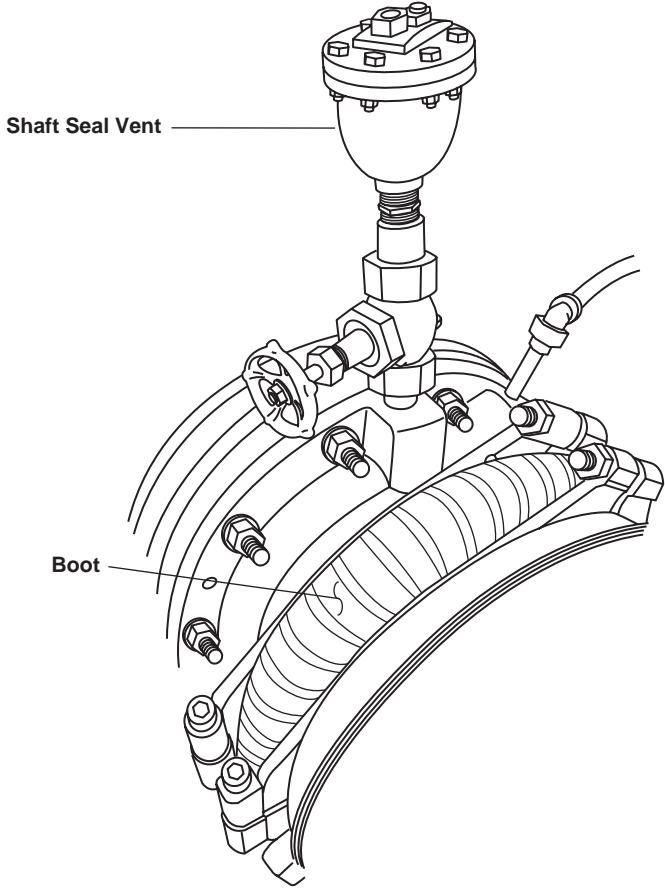
Equipment to Lubricate	Lubricant Specification	Application Method
Fire and General Service Pump Electric Motor	General Purpose Grease (MIL-PRF-24139)	Pressure
Fire and General Service Pump	General Purpose Grease (MIL-PRF-24139)	Pressure
Hydraulic Watertight Door Rollers	General Purpose Grease (MIL-PRF-24139)	Pressure
Hydraulic Watertight Door Tracks	General Purpose Grease (MIL-PRF-24139)	Brush
Drill Press Table/Crank	General Purpose Grease (MIL-PRF-24139)	Brush
Drill Press Spindle	HDO-30 (M2104-3-30W)	Brush
Drill Press Spindle Side Bars	General Purpose Grease (MIL-PRF-24139)	Brush

END OF WORK PACKAGE

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
SHAFT ALLEYS**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

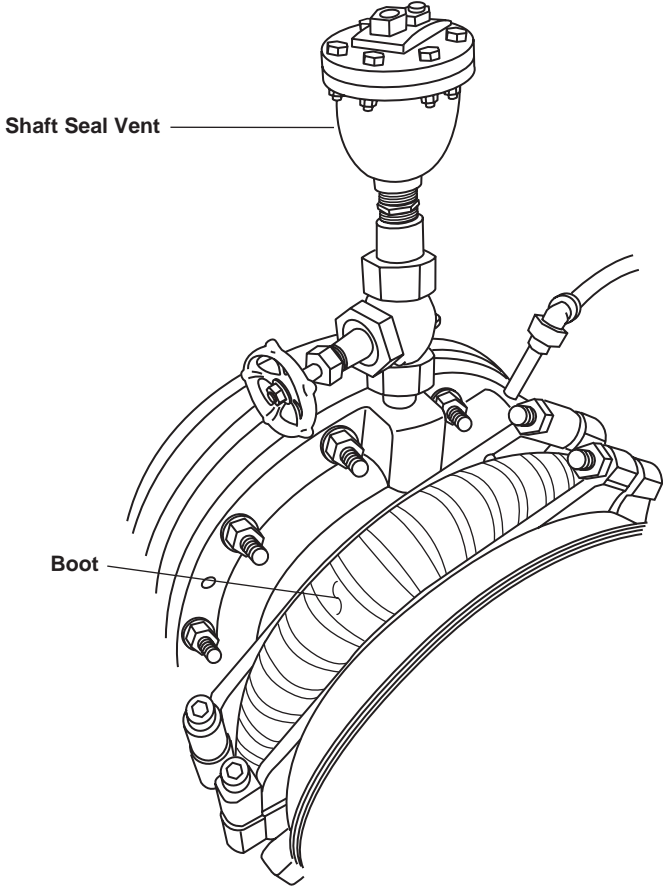
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.3	Port Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	
2	Before	0.3	Starboard Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	



The diagram shows a detailed view of a propeller shaft seal assembly. At the top, there is a circular component labeled 'Shaft Seal Vent' with several bolts around its perimeter. Below this, a vertical shaft passes through a complex housing. At the bottom of the housing, there is a curved, ribbed component labeled 'Boot' that fits around the shaft. Various other fittings, bolts, and hoses are shown as part of the assembly.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	During	0.3	Port Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	
4	During	0.3	Starboard Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Weekly	0.3	Port Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	
6	Weekly	0.3	Starboard Propeller Shaft Seals	Inspect stern tube and bulkhead seals for leaks. The maximum allowable leakage is 1 gal/min (3.79 L/min) when vessel is underway. The maximum allowable leakage is ½ gal/min (1.89 L/min) with the boot seal inflated.	

Shaft Seal Vent

Boot

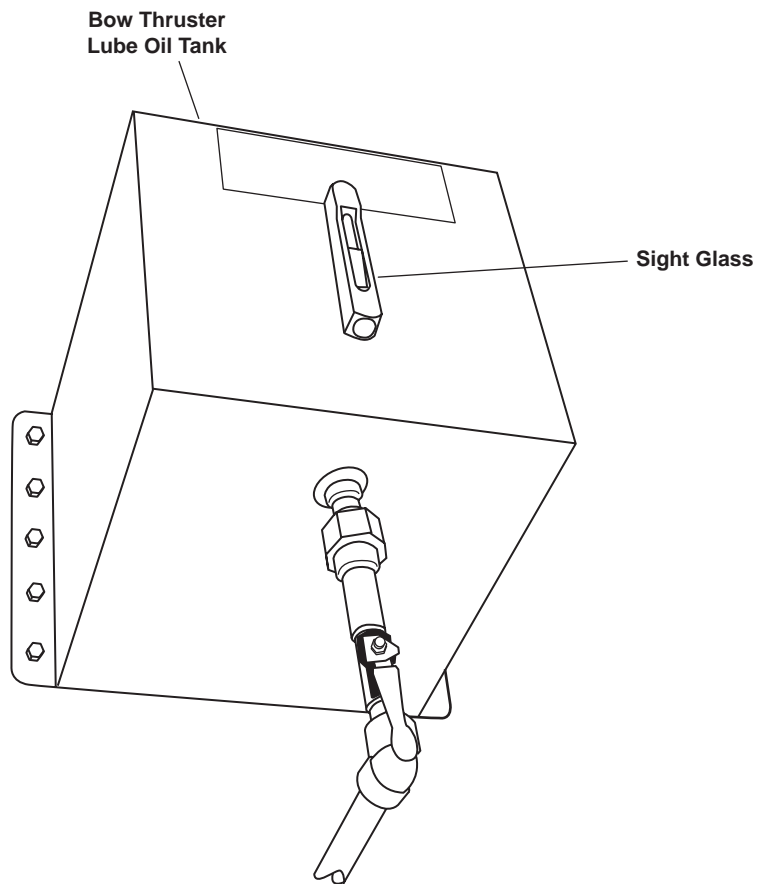
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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
BOW THRUSTER COMPARTMENT**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	<p>BOW THRUSTER</p> <p>Oil Level</p>	<p>Check for oil level and water contamination in sight gauge on the lube oil tank. Level should be between the high and low level marks. Add EP 68 as necessary to maintain oil level ½ way up in sight glass.</p>	<p>Water in oil.</p>



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	During	0.2	BOW THRUSTER Leaks	Inspect for oil leaks.	Class III leaks.
3	During	0.1	Eductor Pressure Gauges	Check gauges for loose connections and damage.	

Eductor Pressure Gauge



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Monthly	0.2	BOW THRUSTER Oil Level	Check for oil level and water contamination in sight gauge on the lube oil tank. Level should be between the high and low level marks. Add EP 68 as necessary to maintain oil level ½ way up in sight glass.	Water in oil.
5	Monthly	0.2	Leaks	Inspect for oil leaks.	Class III leaks.

The diagram illustrates the Bow Thruster Lube Oil Tank. It is a rectangular tank with a sight glass mounted on top for oil level monitoring. A mechanical assembly, likely the thruster drive shaft, is connected to the bottom of the tank. The label 'Bow Thruster Lube Oil Tank' points to the main tank body, and 'Sight Glass' points to the vertical gauge on top.

**Table 2. Lubricant Specifications**

<b>Equipment Lubricated</b>	<b>Lubricant</b>
Bow Thruster Engine Crankcase	Oil OE/HDO-30 (M2104-3-30W)
Bow Thruster Gear Box	Oil 2EP68 Dry

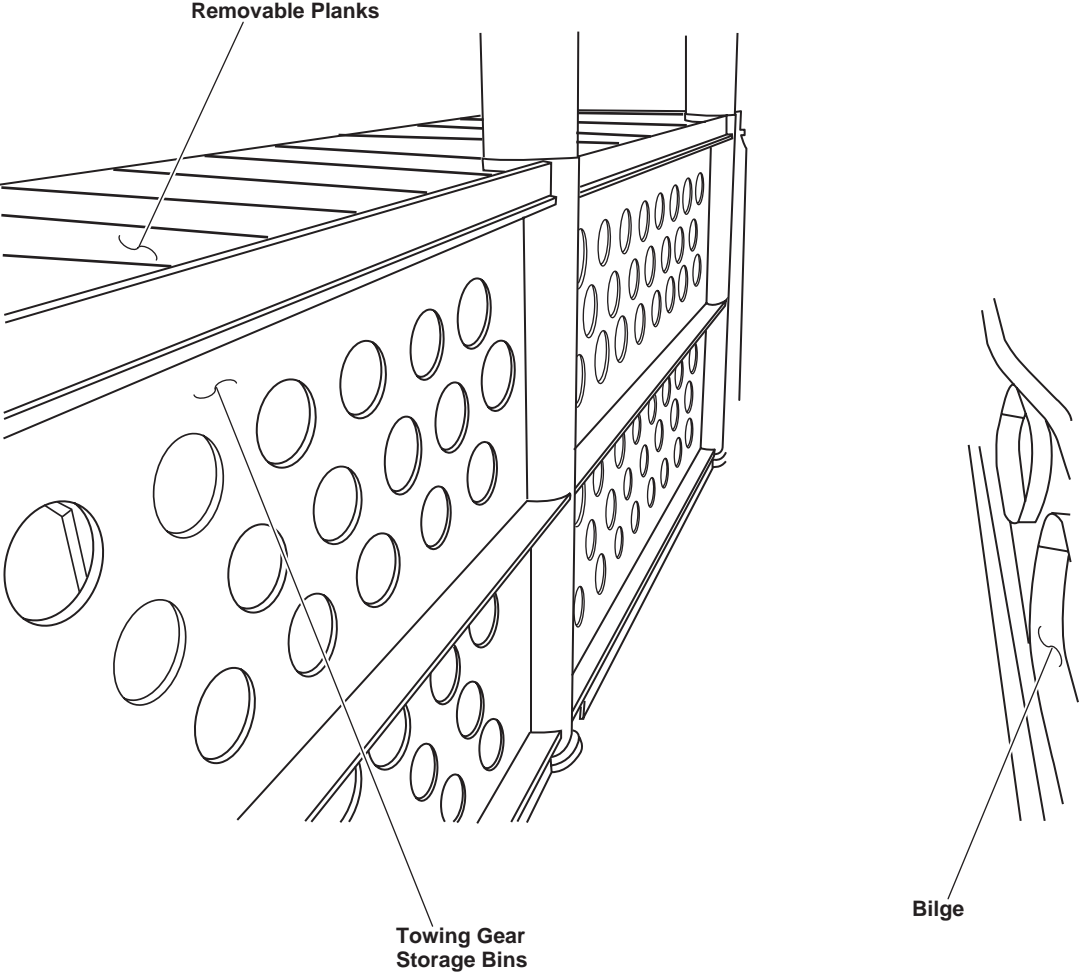
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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
TOWING GEAR LOCKER**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			TOWING GEAR LOCKER		
1	Before	0.2	Stowage	<p style="text-align: center;"><b>WARNING</b></p> <p>Towing gear and equipment must be properly stowed. Failure to comply can result in puncturing or other damage to tanks and voids while at sea.</p> <p>Check that all towing equipment is properly stowed and secured for sea.</p>	
2	Before	0.1	Bilge	<p>Verify that the bilge is pumped and all voids are empty.</p>	
3	After	0.2	Stowage	<p style="text-align: center;"><b>WARNING</b></p> <p>Towing gear and equipment must be properly stowed. Failure to comply can result in puncturing or other damage to tanks and voids while at sea.</p> <p>Check that all towing equipment is properly stowed and secured for sea.</p>	
4	Monthly	0.2	Stowage	<p style="text-align: center;"><b>WARNING</b></p> <p>Towing gear and equipment must be properly stowed. Failure to comply can result in puncturing or other damage to tanks and voids while at sea.</p> <p>Check that all towing equipment is properly stowed and secured for sea.</p>	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
 <p>The diagram illustrates the hull structure of a ship, focusing on the upper section. It shows several horizontal planks at the top, labeled 'Removable Planks'. Below these are two rows of circular openings, labeled 'Towing Gear Storage Bins'. At the bottom right, there is a vertical structure labeled 'Bilge'. The diagram is a line drawing showing the perspective of the hull's side and top.</p>					

**END OF WORK PACKAGE**

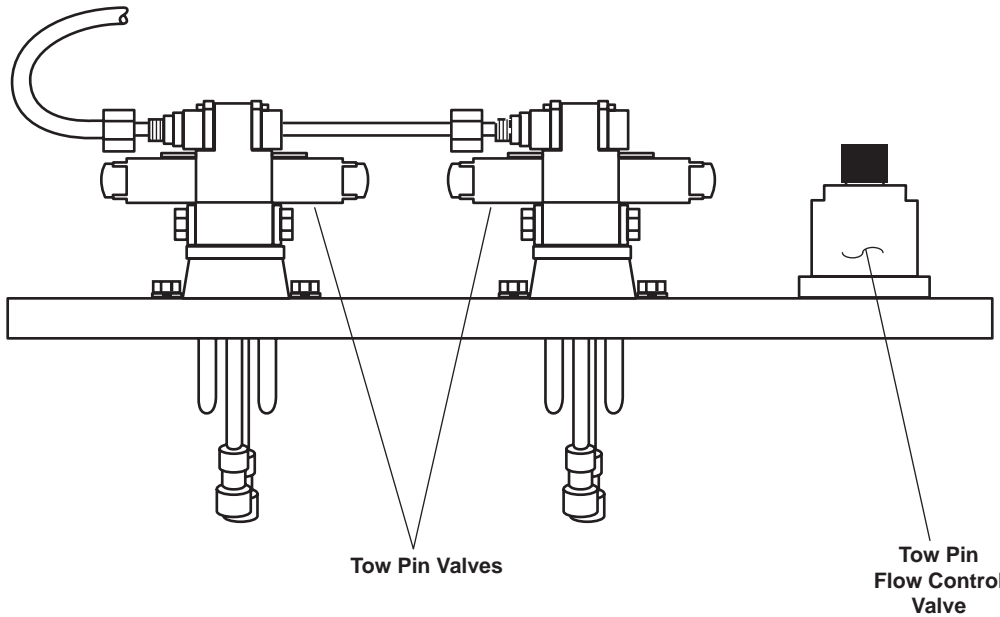
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
STEERING GEAR COMPARTMENT**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.5	<p>STEERING GEAR COMPARTMENT</p> <p>Steering Gear Rudder Motors</p>	<p>Visually inspect unit for damaged, loose, or missing parts or leaks.</p>	<p>Class III leaks or damaged or missing parts. Fails to operate properly.</p>

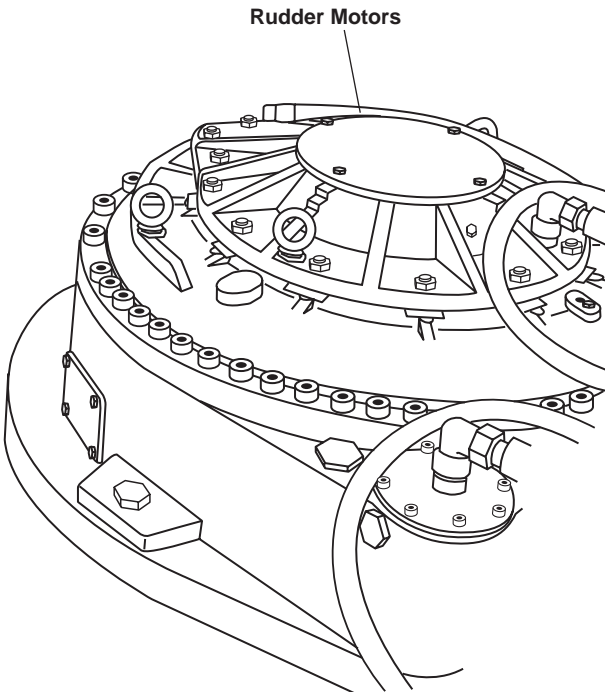
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Before	0.2	Tow Pin Valves	Check hydraulic connections for leaks and check lines for damage.	Class III leaks or damaged or missing parts. Fails to operate properly.
3	After	0.2	Tow Pin Valves	Check hydraulic connections for leaks and check lines for damage.	Class III leaks or damaged or missing parts. Fails to operate properly.
4	Weekly	0.2	Tow Pin Valves	Check hydraulic connections for leaks and check lines for damage.	Class III leaks or damaged or missing parts. Fails to operate properly.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Weekly	0.5	Steering Gear Rudder Motors	Visually inspect unit for damaged, loose, or missing parts or leaks.	Class III leaks or damaged or missing parts. Fails to operate properly.



Rudder Motors

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

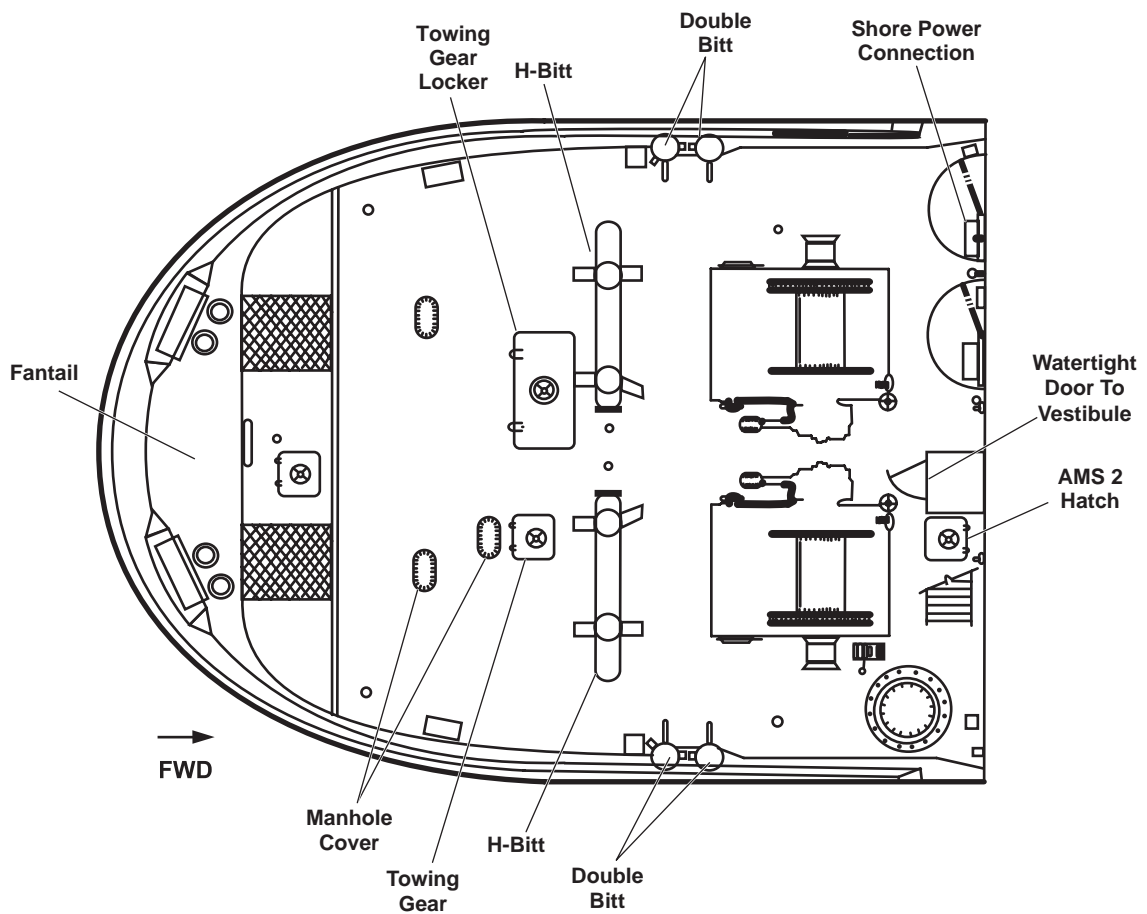
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Monthly	2.0	Steering Gear Rudder Shafts	Grease rudder shafts with general purpose grease.	

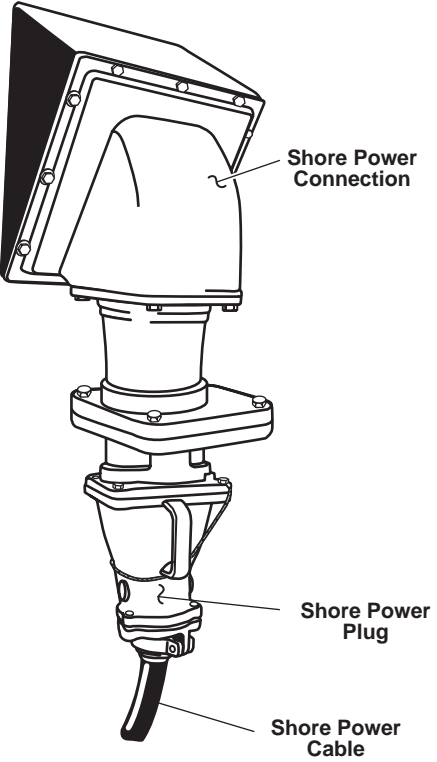
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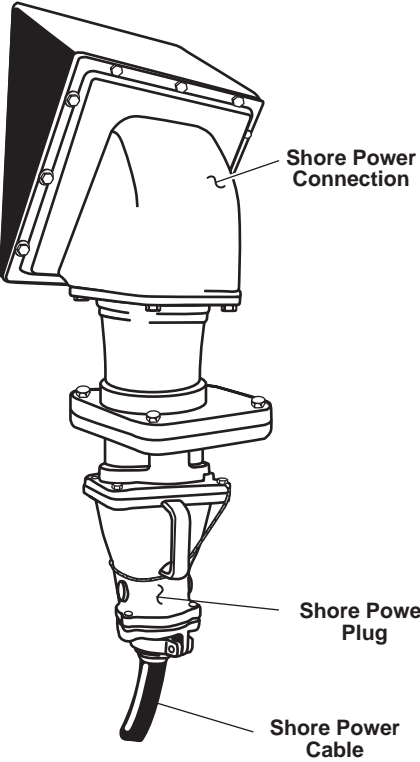


**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
FANTAIL**

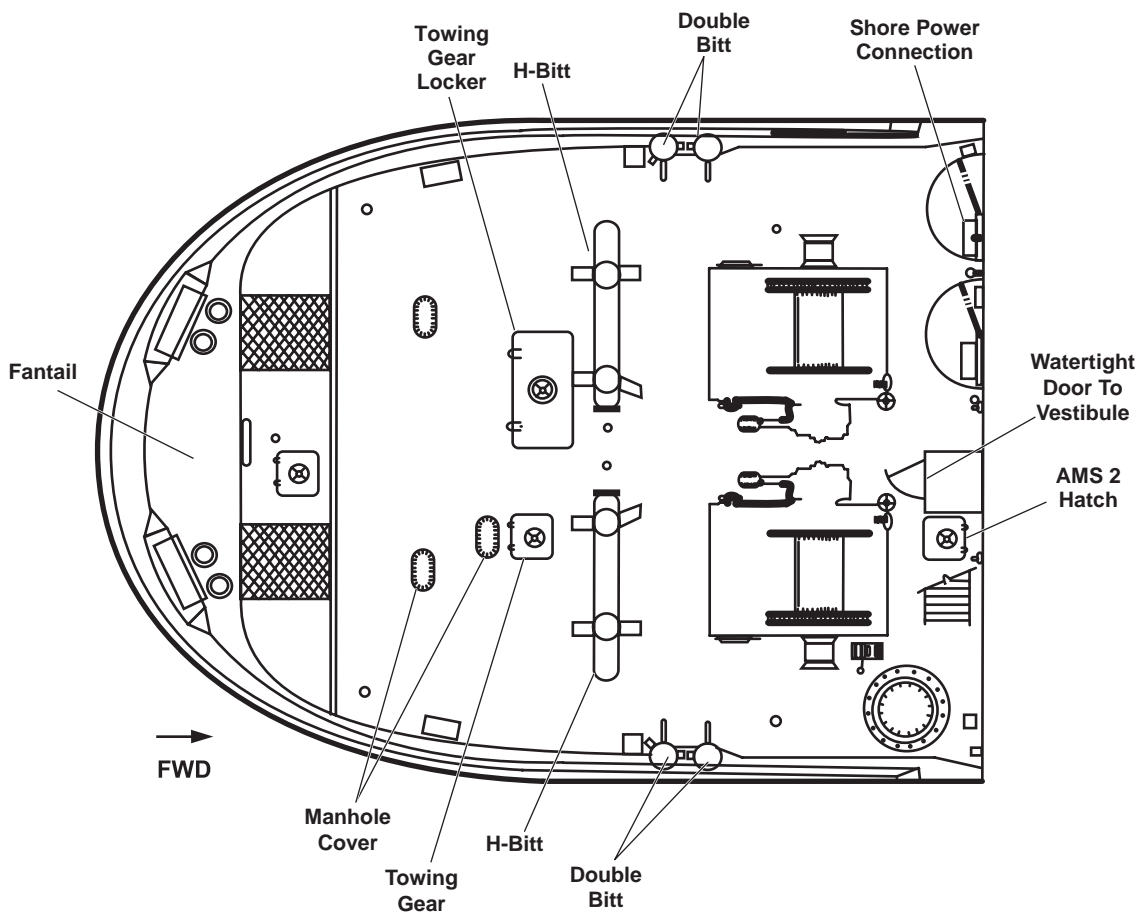
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.4	EXTERNAL STRUCTURE	Inspect for structural damage.	Watertight integrity or operational capability is impaired.



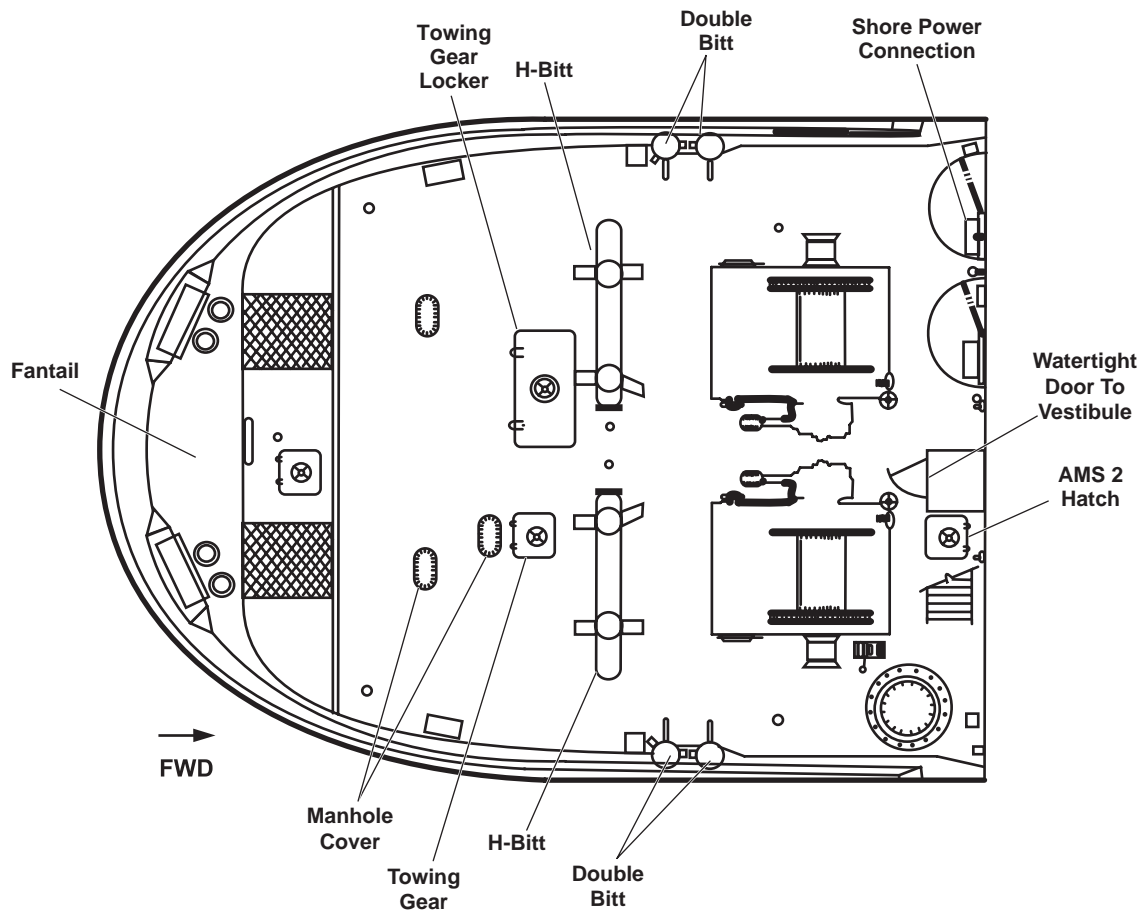
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Before	0.2	SHORE POWER CONNECTOR	<p>Visually check terminal box (exterior) for damage and corrosion. Ensure that receptacle is securely fastened.</p> <div style="text-align: center; border: 2px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><b>WARNING</b></p> </div> <p><b>Do not disconnect the shore power cable when shore power operation is in progress. High voltages could cause injury or death.</b></p>	
3	Before	0.2		<p>Visually check cable connectors (internal) for damage and corrosion.</p>	
4	Before	0.4	SHORE POWER CABLE	<p>a. Visually check condition of cable. Check for cracked or damaged insulation.</p> <p>b. Check condition of cable connection. Ensure that connector is protected from moisture, dirt buildup, and corrosion.</p> <div style="text-align: center; margin-top: 20px;">  </div>	

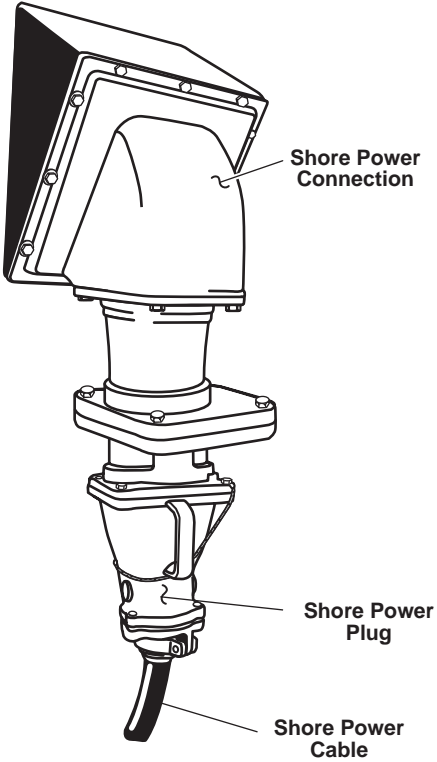
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	After	0.2	SHORE POWER CONNECTOR	<p style="text-align: center;"><b>WARNING</b></p> <p><b>Do not disconnect the shore power cable when shore power operation is in progress. High voltages could cause injury or death.</b></p> <p>Visually check terminal box (exterior) for damage and corrosion. Ensure that receptacle is securely fastened.</p> 	

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Weekly	0.4	EXTERNAL STRUCTURE	Inspect for structural damage.	Watertight integrity or operational capability is impaired.
	Weekly	0.4	HATCH AND VENT COVER GASKETS	Check that gaskets are clean and serviceable.	Watertight integrity or operational capability is impaired.



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Monthly	0.2	DOUBLE BITTS Port Double Bitt	Inspect double bitt for secure mounting and damage.	Structural cracks or damage in foundation.
8	Monthly	0.2	Starboard Double Bitt	Inspect double bitt for secure mounting and damage.	Structural cracks or damage in foundation.
9	Monthly	0.2	H-BITTS Port H-bitt	Inspect H-bitt for secure mounting and damage.	Structural cracks or damage in foundation.
10	Monthly	0.2	Starboard H-bitt	Inspect H-bitt for secure mounting and damage.	Structural cracks or damage in foundation.



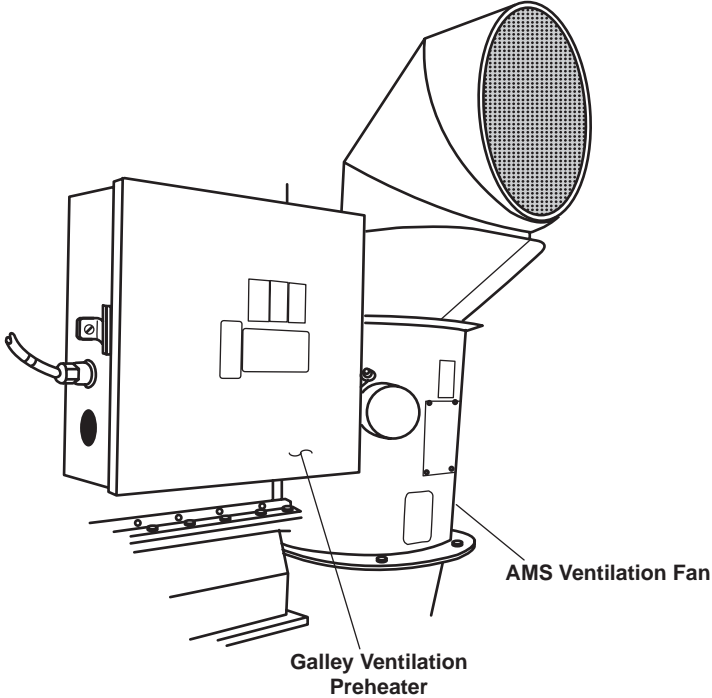
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Monthly	0.2	SHORE POWER CONNECTOR  SHORE POWER CABLE	<p>Visually check terminal box (exterior) for damage and corrosion. Ensure receptacle is securely fastened.</p> <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><b>WARNING</b></p> </div> <p><b>Do not disconnect the shore power cable when shore power operation is in progress. High voltages could cause injury or death.</b></p>	
12	Monthly	0.2		<p>Visually check condition of cable. Check for cracked or damaged insulation.</p>	
13	Monthly	0.2		<p>Check condition of cable connection. Ensure connector is protected from moisture, dirt buildup, and corrosion.</p> <div style="text-align: center; margin-top: 20px;">  </div>	

END OF WORK PACKAGE

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
FAN ROOM, MAIN DECK**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	SUPPLY AND EXHAUST FANS	Check units for unusual noises or excessive vibrations.	Fails to operate.
2	Before	0.1	PREHEATER	Inspect unit for obvious damage.	Fails to operate.



The diagram shows two pieces of equipment. On the left is a rectangular metal cabinet labeled 'Galley Ventilation Preheater'. It has a control panel on the front with a small display and a handle. On the right is a cylindrical unit labeled 'AMS Ventilation Fan' with a large, circular, perforated metal grille on top. Both units are mounted on a base with some wiring or piping visible at the bottom.

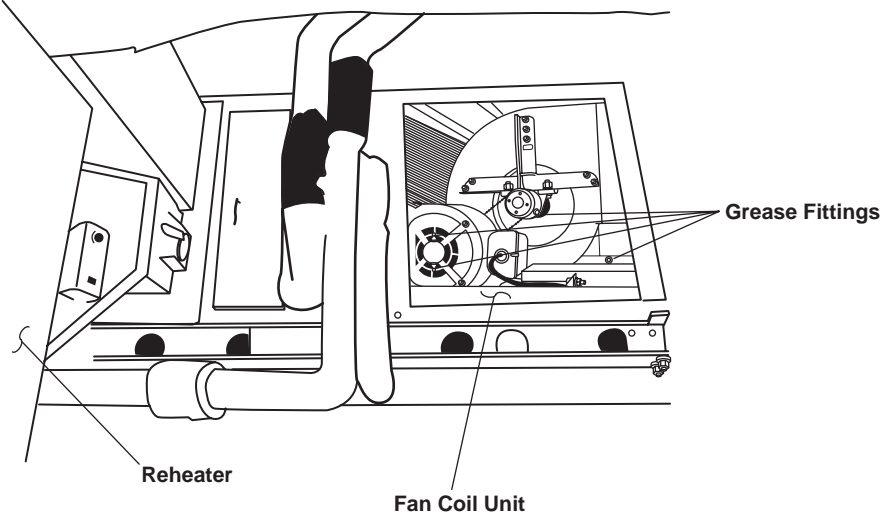
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.2	ROOM DOOR ALARM	<p style="text-align: center;">NOTE</p> <p>Notify pilothouse that alarm is to be tested.</p> <p>Open door and verify that both alarms (buzzer and light) operate.</p>	

The diagram illustrates the components of the Fan Room Door Alarm system. At the top, a physical alarm unit is shown, consisting of two circular alarm bells connected by a central bar, with a handle on the left and electrical terminals on the right. A label 'Fan Room Door Alarm' points to this unit. Below it is a rectangular 'Alarm Switch Board Located in the Pilothouse'. This board features four indicator lights arranged in a 2x2 grid. The right-hand light is specifically labeled 'Fan Room Door Open Indicator'. At the bottom of the board is a control panel with four circular buttons and a central indicator light.



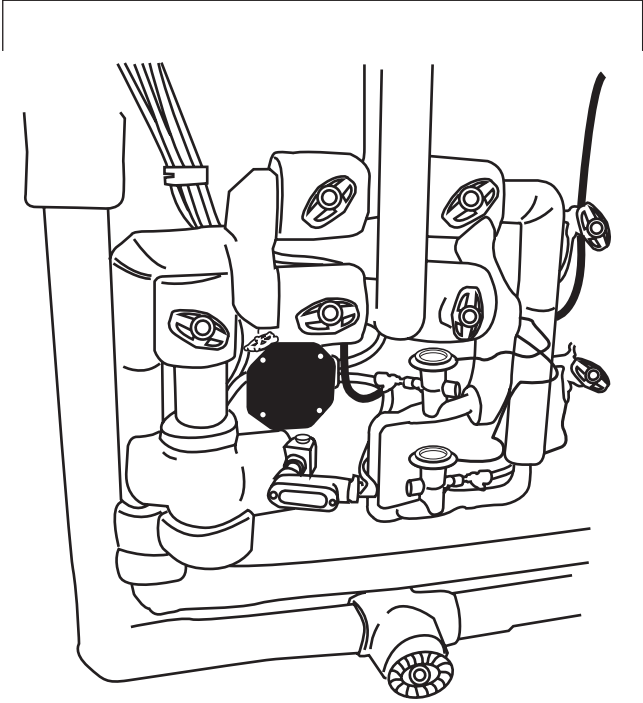
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before	0.2	FAN COIL UNIT	a. Observe unit for unusual noises or excessive vibration.  b. Grease four grease fittings with 1-2 shots per fitting of general purpose grease.	Fails to operate.
					

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

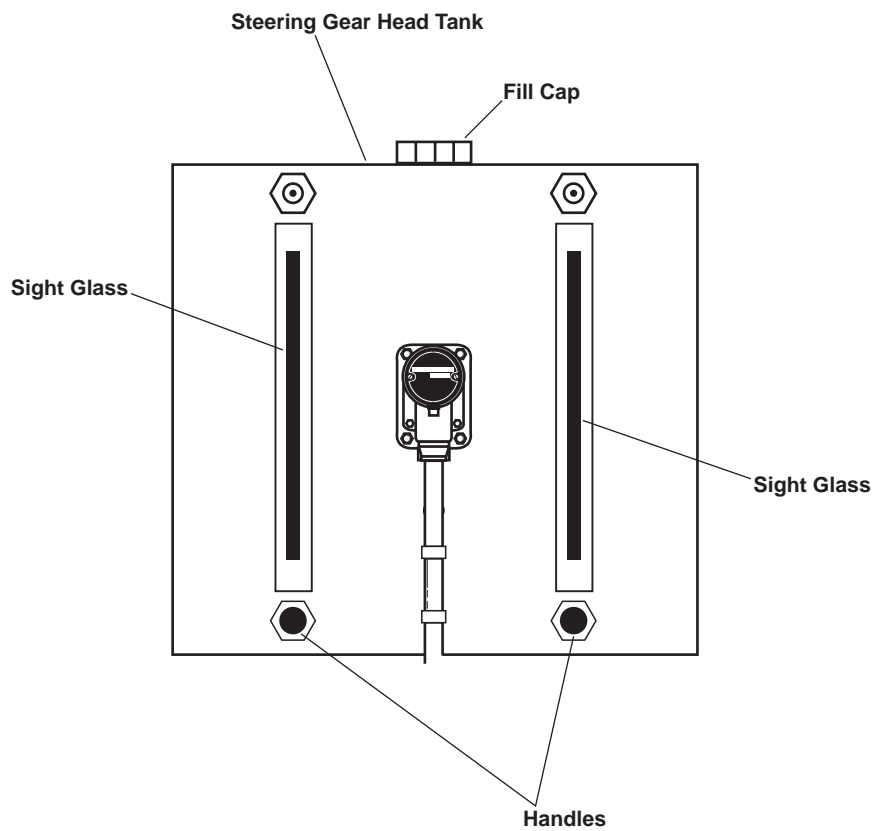
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Before	0.1	REFRIGERATION PIPING	Inspect refrigeration piping for leaks.	

Refrigeration Valves and Piping



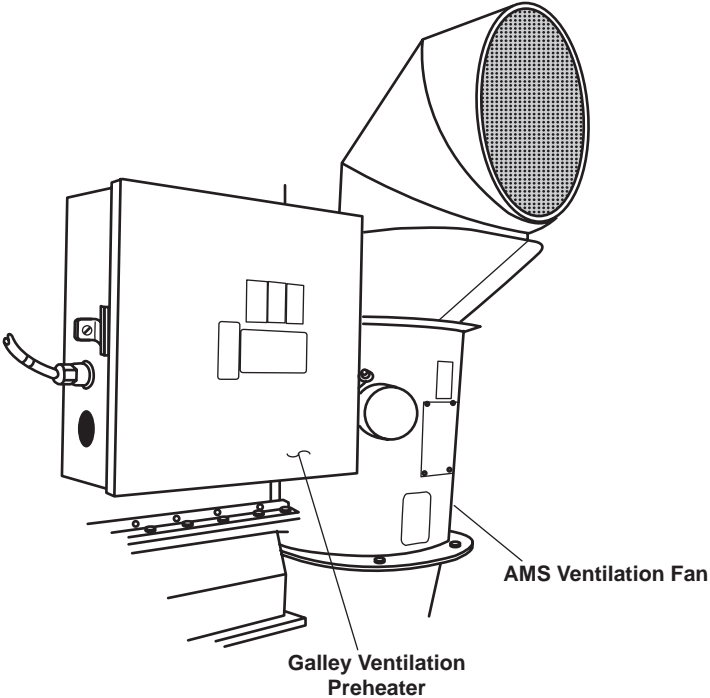
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.2	STEERING GEAR HEAD TANK	a. Visually inspect tank for leaks and level. b. Push in on the handles to the oil level in the sight glasses. Add hydraulic fluid (OH 46 AW) as necessary to maintain the sight glasses at ½ full.	Class III leaks.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	During	0.2	SUPPLY AND EXHAUST FANS	Check units for unusual noises or excessive vibrations.	Fails to operate.



The diagram shows two pieces of equipment. On the left is a rectangular box labeled 'Galley Ventilation Preheater' with a control panel and a cable. On the right is a cylindrical unit labeled 'AMS Ventilation Fan' with a large circular fan grille on top. Both are mounted on a common base.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	During	0.2	FAN COIL UNIT	Observe unit for unusual noises or excessive vibration.	Fails to operate.

Reheater

Fan Coil Unit

Grease Fittings

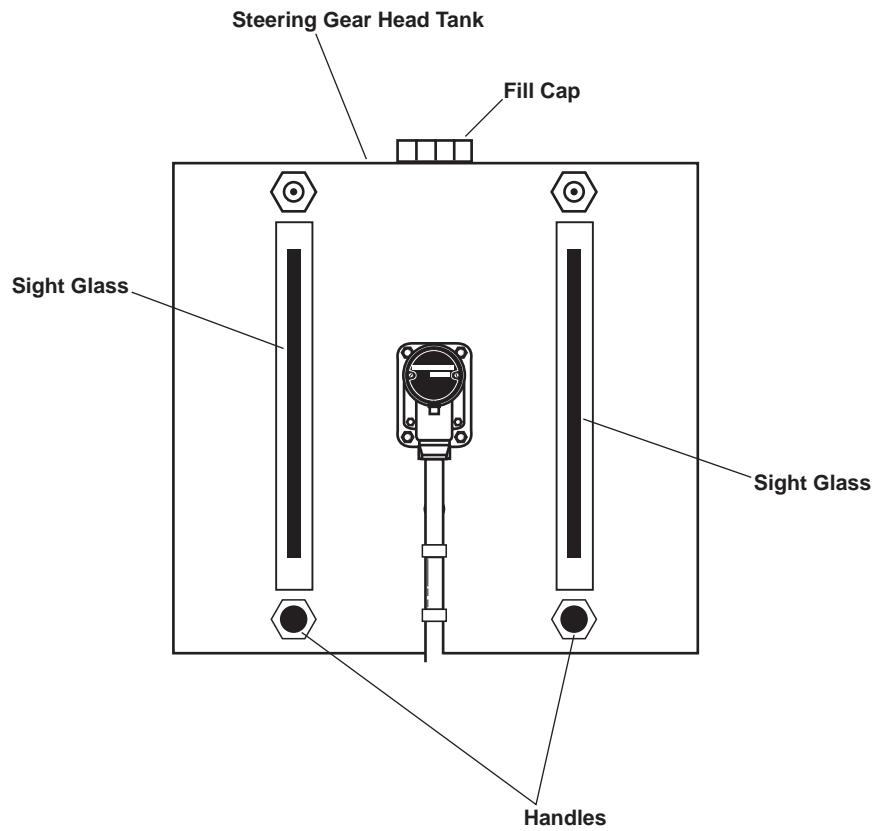
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	During	0.1	REFRIGERATION PIPING	Inspect refrigeration piping for leaks.	

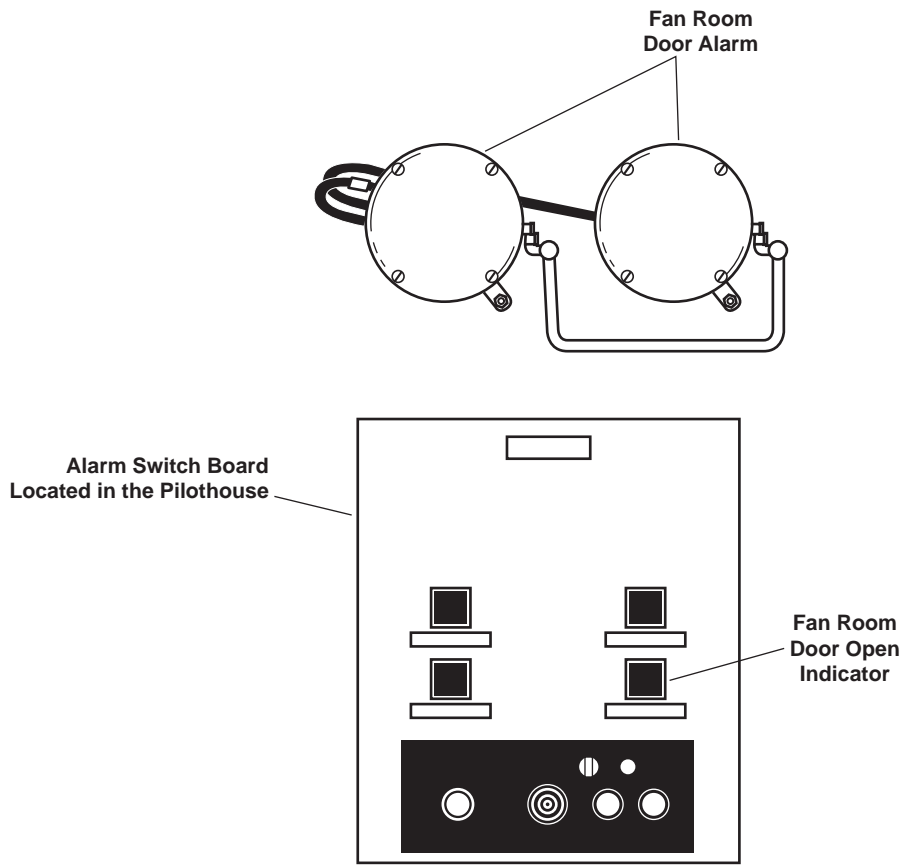
Refrigeration Valves and Piping

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	During	0.3	STEERING GEAR HEAD TANK	a. Visually inspect tank for leaks and level.  b. Push in on the handles to the oil level in the sight glasses. Add hydraulic fluid (OH 46 AW) as necessary to maintain the sight glasses at ½ full.	Class III leaks.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Monthly	0.2	ROOM DOOR ALARM	<p style="text-align: center;">NOTE</p> <p>Notify pilothouse that alarm is to be tested.</p> <p>Open door and verify that both alarms (buzzer and light) operate.</p> <div style="text-align: center;">  <p>The diagram shows two circular alarm units, each with a handle and a mounting bracket, connected by a cable. Below them is a rectangular panel labeled 'Alarm Switch Board Located in the Pilothouse'. This panel contains four square indicator lights arranged in a 2x2 grid. The right-hand light in the bottom row is specifically labeled 'Fan Room Door Open Indicator'. At the bottom of the panel are several circular buttons and indicators.</p> </div>	



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Monthly	0.1	PREHEATER	Inspect unit for obvious damage.	Fails to operate.

The diagram shows a Galley Ventilation Preheater, which is a rectangular metal box with a control panel on its front face. It is connected to an AMS Ventilation Fan, which is a cylindrical unit with a large, circular, perforated fan grille on top. The preheater is mounted on a base with several electrical terminals. Labels with leader lines identify the 'Galley Ventilation Preheater' and the 'AMS Ventilation Fan'.

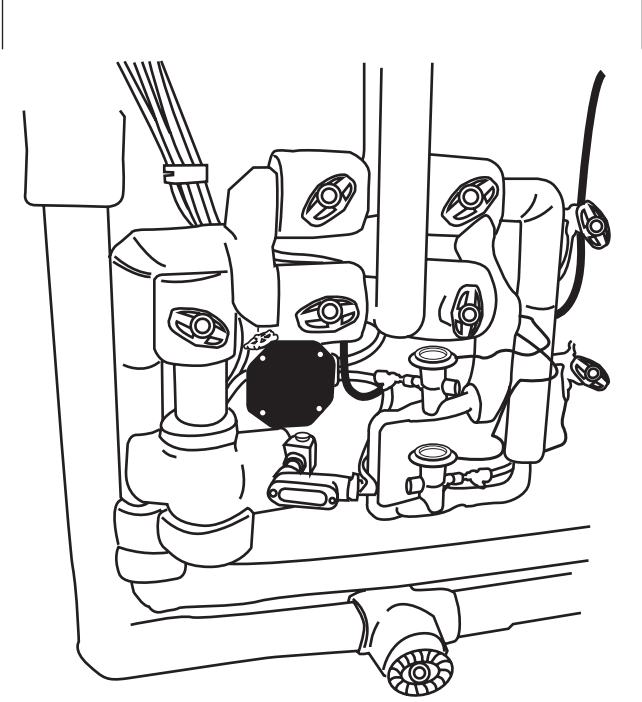
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
13	Monthly	0.2	FAN COIL UNIT	<ul style="list-style-type: none"> <li>a. Observe unit for unusual noises or excessive vibration.</li> <li>b. Grease four grease fittings with 1-2 shots per fitting of general purpose grease.</li> </ul>	Fails to operate.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

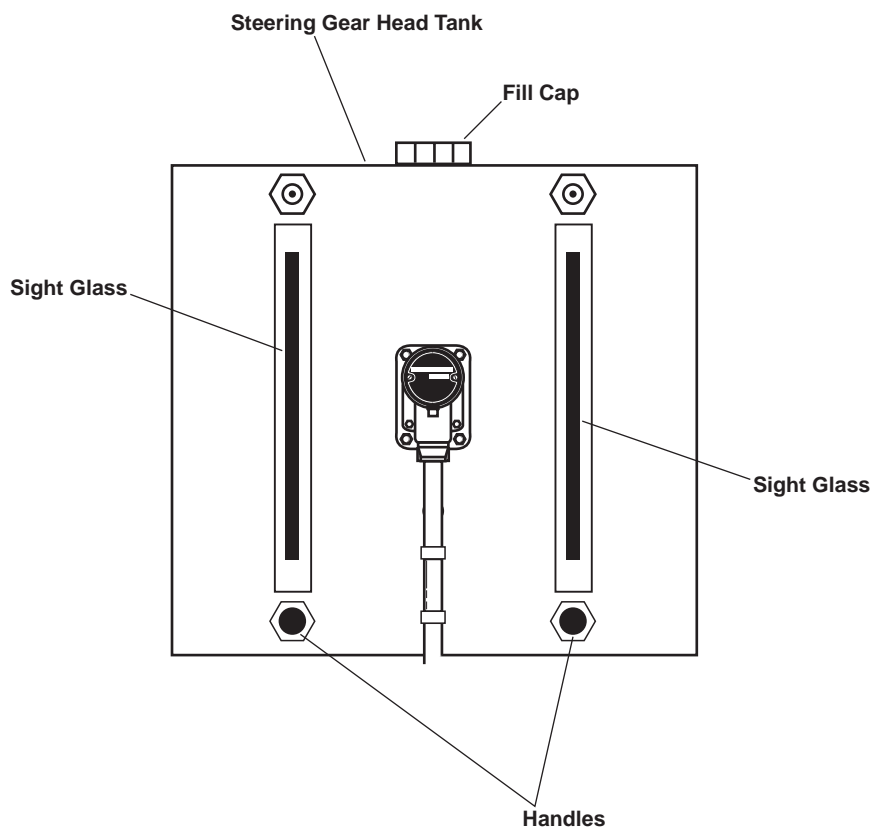
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Monthly	0.1	REFRIGERATION PIPING	Inspect refrigeration piping for leaks.	

Refrigeration Valves and Piping



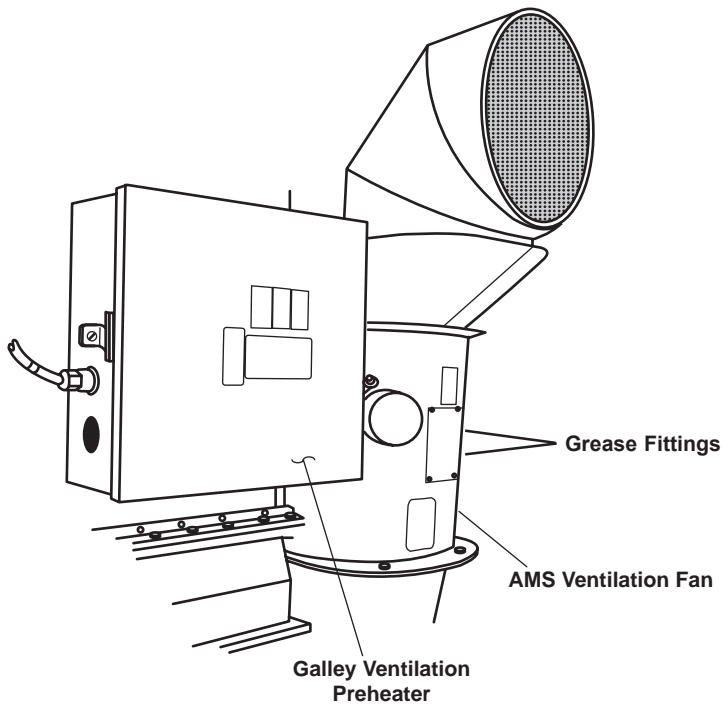
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Monthly	0.3	STEERING GEAR HEAD TANK	a. Visually inspect tank for leaks and level.  b. Push in on the handles to the oil level in the sight glasses. Add hydraulic fluid (OH 46 AW) as necessary to maintain the sight glasses at ½ full.	Class III leaks.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Semiannual	0.2	SUPPLY AND EXHAUST FANS	Grease two fittings on fan housing with 1-2 shots per fitting of general purpose grease.	



**Table 2. Lubrication**

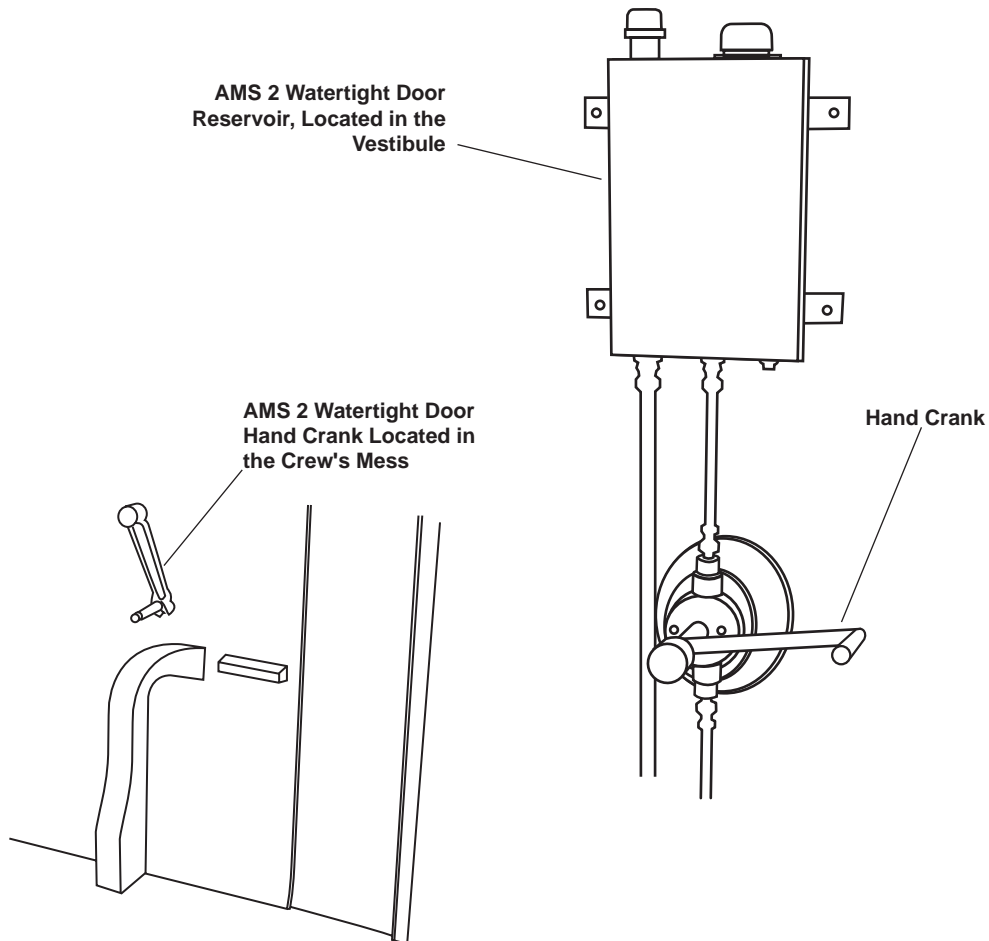
<b>Item Lubricated</b>	<b>Lubricant</b>	<b>Military Specification</b>
Fan Coil Unit	Grease, General Purpose	MIL-G-18709
Steering Gear Head Tank	Oil 46AW	
Supply and Exhaust Fans	Grease, General Purpose	MIL-G-18709

**END OF WORK PACKAGE**

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
MAIN DECK VESTIBULE**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	AMS 2 WATERTIGHT DOOR REMOTE HAND PUMP STATION	Inspect for leaks and secure mounting. Check oil level. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
2	Before	0.2	Hand Pump Crew's Mess	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.2	EMERGENCY STOP SWITCHES Fuel Oil Pumps	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
4	Before	0.2	Engine Room Ventilation	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
5	Before	0.2	AMS 1 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
6	Before	0.2	AMS 2 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.

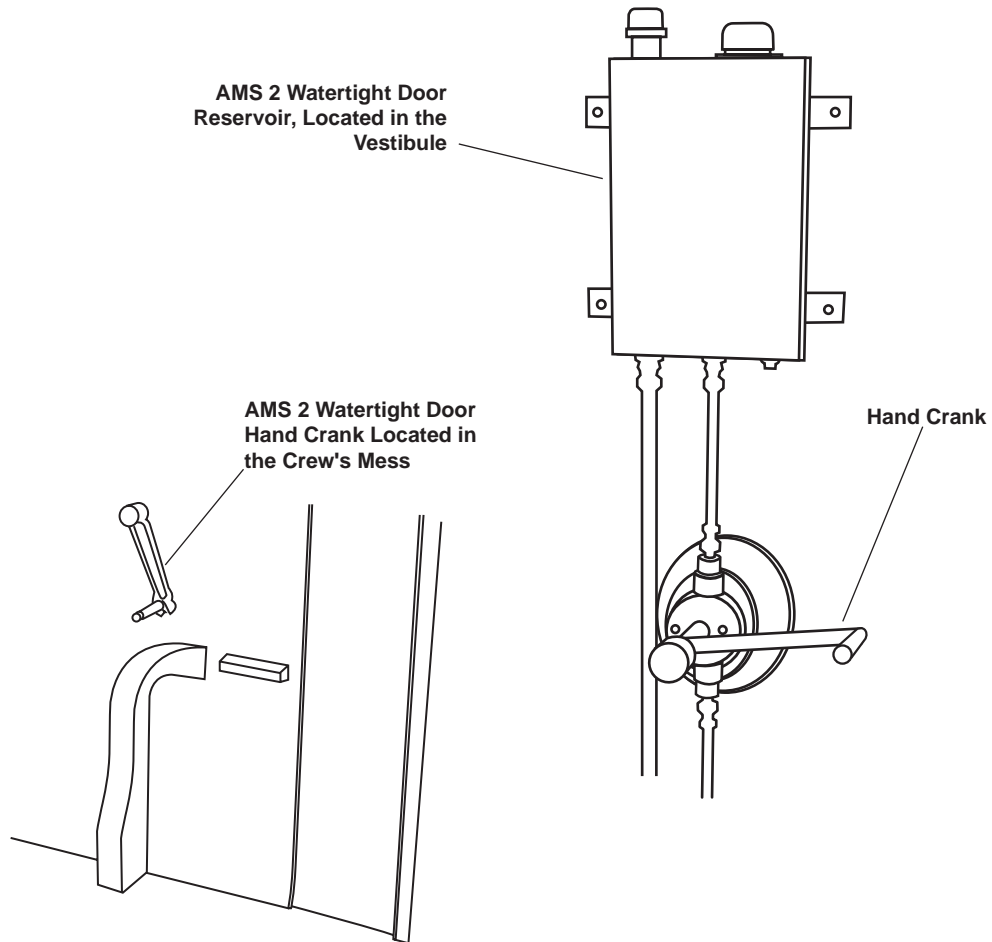
  

The diagram shows a vertical panel with four circular emergency stop buttons. From top to bottom, they are labeled: 'Emergency Stop AMS 1 Supply Fan', 'Emergency Stop AMS 2 Supply Fan', 'Emergency Stop HVAC', and 'Engine Room Supply and Exhaust Fans'. Below the panel are two separate emergency stop switches, labeled 'Emergency Stop Fuel/Oil Transfer Pump Number 2' and 'Emergency Stop Fuel/Oil Transfer Pump Number 1'. Wires connect the panel to the switches.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	During	0.2	AMS 2 WATERTIGHT DOOR REMOTE HAND PUMP STATION	Inspect for leaks and secure mounting. Check oil level. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
8	During	0.2	Hand Pump	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	During	0.2	EMERGENCY STOP SWITCHES Fuel Oil Pumps	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
10	During	0.2	Engine Room	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
11	During	0.2	AMS 1 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
12	During	0.2	AMS 2 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.

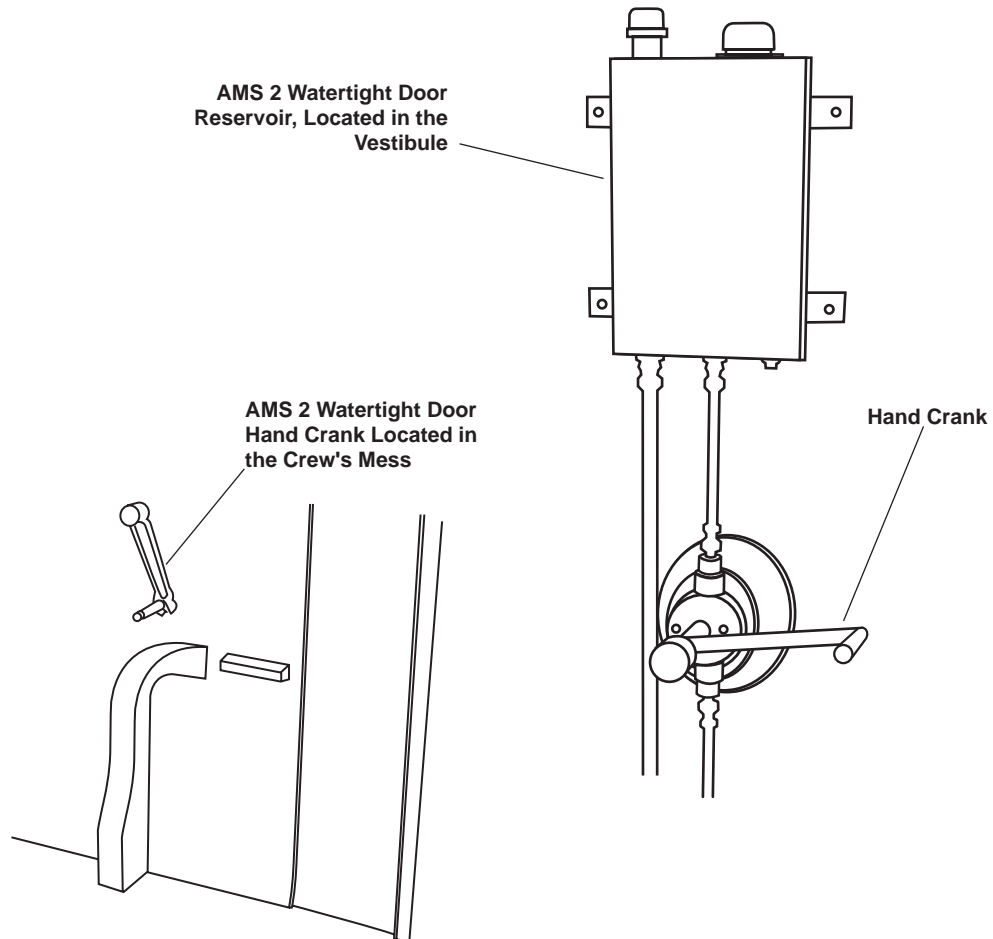
  

The diagram shows a vertical emergency stop control panel with four circular buttons. Labels with leader lines point to the following components:

- Emergency Stop AMS 1 Supply Fan (top button)
- Emergency Stop AMS 2 Supply Fan (second button from top)
- Emergency Stop HVAC (third button from top)
- Engine Room Supply and Exhaust Fans (bottom button)
- Emergency Stop Fuel/Oil Transfer Pump Number 2 (bottom right switch)
- Emergency Stop Fuel/Oil Transfer Pump Number 1 (bottom left switch)

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
13	Weekly	0.2	AMS 2 WATERTIGHT DOOR REMOTE HAND PUMP STATION	Inspect for leaks and secure mounting. Check for leaks. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
14	Weekly	0.2	Hand Pump	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.



**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Weekly	0.2	EMERGENCY STOP SWITCHES Fuel Oil Pumps	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
16	Weekly	0.2	Engine Room Ventilation	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
17	Weekly	0.2	AMS 1 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.
18	Weekly	0.2	AMS 2 Fans	Inspect panels for obvious damage or missing or broken switches.	Any damage which could affect operation.

The diagram shows a vertical emergency stop control panel with four circular buttons. From top to bottom, the buttons are labeled: 'Emergency Stop AMS 1 Supply Fan', 'Emergency Stop AMS 2 Supply Fan', 'Emergency Stop HVAC', and 'Engine Room Supply and Exhaust Fans'. Below the panel are two separate emergency stop switches, labeled 'Emergency Stop Fuel/Oil Transfer Pump Number 1' and 'Emergency Stop Fuel/Oil Transfer Pump Number 2'. Wires connect the panel to the switches.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Monthly	0.1	Towing Machine Control Panel	Visually inspect for physical damage, and check the programmable controller for fault indication lights.	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
20	Monthly	0.2	AMS 2 WATERTIGHT DOOR REMOTE HAND PUMP STATION  Reservoir	Check oil level on dipstick and add oil (OE/HDO-40) as required.	

The diagram illustrates the components of the AMS 2 Watertight Door Remote Hand Pump Station. It features a main reservoir unit with a dipstick for oil level checking. This unit is connected via hoses to a hand crank mechanism. A separate inset shows the hand crank's location on a door frame in the crew's mess area.

**Table 2. Lubrication**

<b>Item Lubricated</b>	<b>Lubricant</b>	<b>Military Specification</b>
Sliding Hydraulic Watertight Door	Oil OE/HDO-40	MIL-PRF-2104


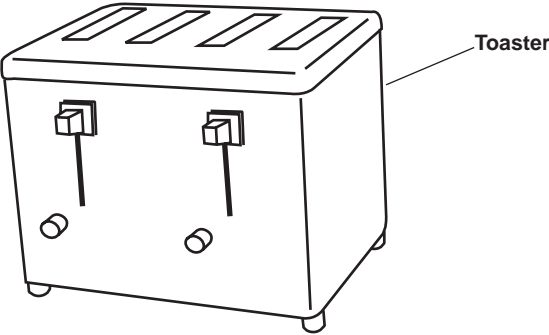
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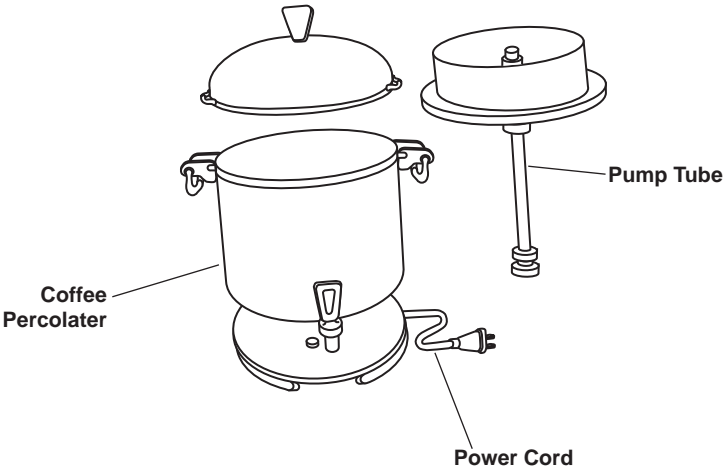
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
MESS/RECREATION ROOM**

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.1	TOASTER	<div style="text-align: center;"> <div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <div style="border: 1px solid black; padding: 5px; width: 60px; height: 60px; margin: 10px auto;">  </div> <p style="text-align: center;"><b>Unplug the toaster before cleaning. Servicing an energized toaster can result in serious injury or death.</b></p> <p style="text-align: center;">Visually inspect for damage or missing parts.</p> <div style="text-align: center; margin-top: 20px;">  </div> </div>	

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

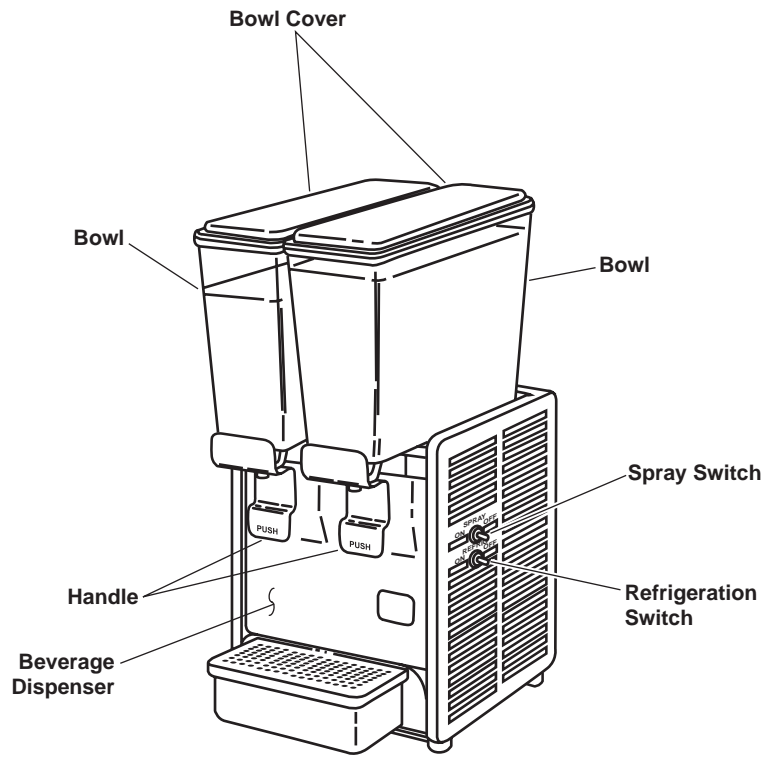
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
2	Before	0.2	COFFEE PERCOLATOR Power Cord	Inspect power cord and plug for cracks in insulation or other damage. Place out of service if bare wires are exposed or if plug is damaged. Repair as soon as practical.	Bare wires or damaged plug.
3	Before	0.2	Pump Tube	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Do not immerse percolator. Damage to the unit will result.</p> <p>Ensure that the washer in the base of the pump tube remains loose. Remove all coffee grounds by using running water or a toothpick.</p>	
4	Before	0.2	Exterior	Clean the exterior using warm soapy water and clean cloth. Wipe dry with clean soft cloth.	



The diagram shows a coffee percolator with its lid and pump tube assembly. Labels with leader lines point to the 'Coffee Percolater' (the main pot), the 'Pump Tube' (the vertical tube with a washer at the base), and the 'Power Cord' (the electrical plug).

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

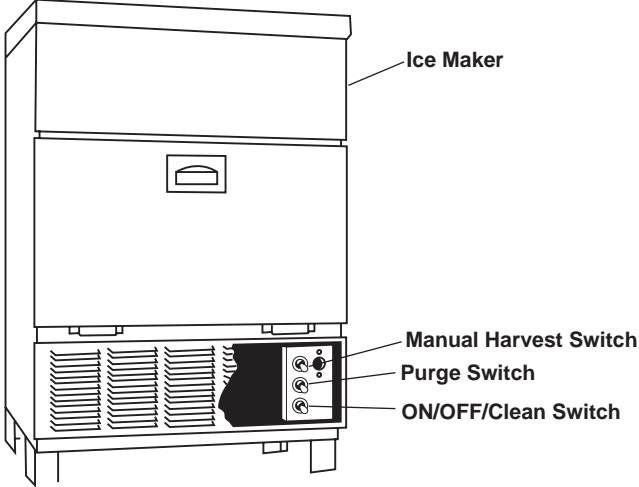
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
5	Before	0.2	<p>BEVERAGE DISPENSER</p> <p>Clean Bowl</p>	<p>Visually inspect unit for damage.</p> <p>Wash bowl in soapy water. Rinse with clean water and wipe dry with soft cloth.</p>	



**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
6	Before	0.2	MILK DISPENSER Dispenser Valve	Inspect valves to ensure that they are secure on valve holders.	
<p>The diagram shows a front view of a milk dispenser. On the left side, there is a door with a latch labeled 'Door Latch' and a circular thermometer labeled 'Thermometer'. On the right side, there is a dispensing mechanism with a 'Dispenser Valve' and a 'Temperature Control Switch' located below it.</p>					
7	Before	0.2	MINI-REFRIGERATOR	Visually inspect refrigerator for damage or missing parts.	
<p>The diagram shows a top-down view of an open mini refrigerator. The left door is open, revealing a 'Thermostat' on the inner wall. The entire unit is labeled 'Mini Refrigerator' at the bottom.</p>					

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
8	Before	0.5	ICE MAKER	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Icemaker must not be operated without exterior panels installed. Damage to unit could result.</p> <p>Visually inspect unit for damage or missing parts. Verify that exterior panels are installed.</p> <div style="text-align: center;">  <p>The diagram shows a front view of a rectangular ice maker unit. At the top is a large rectangular section labeled 'Ice Maker'. Below it is a smaller section with a handle. At the bottom is a control panel with three switches: 'Manual Harvest Switch' (top), 'Purge Switch' (middle), and 'ON/OFF/Clean Switch' (bottom). To the left of the control panel is a vented area with horizontal slats.</p> </div>	


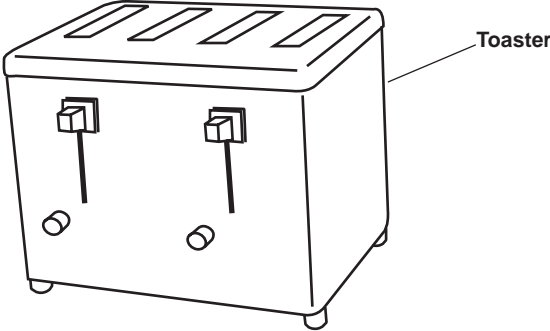
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
9	Before	0.1	TELEVISION AND VCR  MILK DISPENSER	Inspect for secure mounting and obvious damage.	
10	During	0.2	Exterior	Check cabinet each day for cleanliness.	
11	During	0.2	Dispenser Valve	Inspect valves to ensure they are secure on valve holders.	
12	During	0.2	Compressor	Inspect for proper operation of compressor. Report abnormal compressor noises to unit maintenance.	

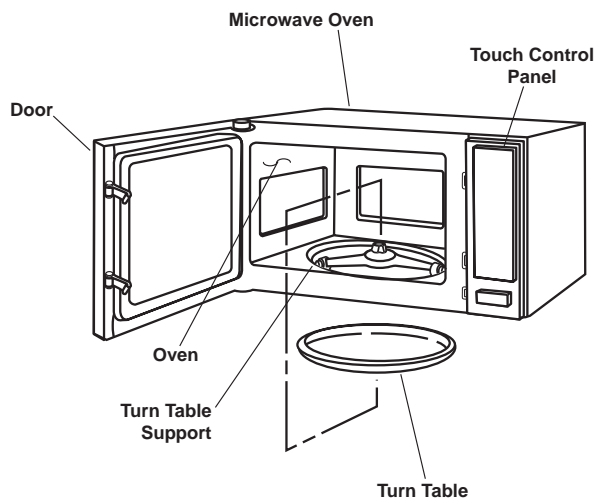
The diagram shows a front view of a milk dispenser. On the left side of the door, there is a 'Door Latch' and a 'Thermometer' (represented by a circle with a thermometer symbol). On the right side, there is a 'Dispenser Valve' and a 'Temperature Control Switch' (represented by a circle with a thermometer symbol). The dispenser is mounted on four legs.

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
13	During	0.1	TELEVISION AND VCR  TOASTER	Inspect for secure mounting and obvious damage.  <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <div style="text-align: center; margin: 10px auto;">  </div> <p><b>Unplug the toaster before cleaning. Servicing an energized toaster can result in serious injury or death.</b></p>	
14	After	0.2	Exterior Surface	Wipe off exterior using damp rag.	
15	After	0.2	Crumb Tray	Remove crumb tray, empty, clean, and replace.	
					

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
16	After	0.2	MICROWAVE OVEN  Exterior Surface	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Never use abrasive or harsh cleaners or scouring pads. Damage to oven will result.</p> <p>Clean the outside of the oven of grease and soil buildup with mild soap and water; rinse and dry with a soft cloth. Do not use any type of household or abrasive cleaner.</p>	
17	After	0.2	Interior Surfaces	<p>Check the interior surfaces for grease and soil buildup, wipe with soft cloth and warm water. Wipe wave guide cover in ceiling of oven with soft damp cloth to remove food. For heavier soil, use baking soda or mild soap; rinse thoroughly with hot water and wipe dry.</p>	
18	After	0.2	Oven	<p>Check for odors. Odors can be eliminated from the inside of the oven by boiling a solution of one cup of water and several tablespoons of lemon juice in the oven for 5 to 7 minutes. Wipe out excess moisture after every use.</p>	






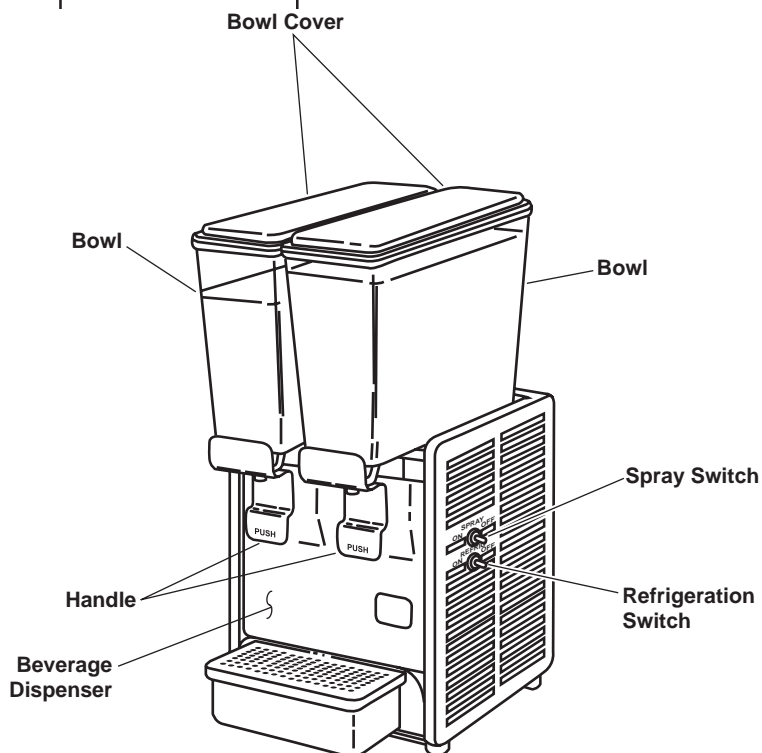
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
19	After	0.2	MICROWAVE OVEN  Turntable/Turntable Support	<p><b>⚠ CAUTION</b></p> <p>Handle turntable support carefully. If dropped, damage to turntable support will result.</p> <p>Remove turntable and turntable support for cleaning. Clean floor of oven with mild soap and water; rinse and dry with a soft cloth. Clean turntable and support in mild soapy water or in dishwasher. Dry with a soft cloth.</p>	
20	After	0.2	Touch Control Panel	<p><b>⚠ CAUTION</b></p> <p>Oven door must be open when cleaning touch control panel to prevent oven operation. Operation of oven without any contents will result in permanent damage to oven.</p>	
21	After	0.2	Vents	Clean vents by wiping with soft cloth.	
22	After	0.2	Door	<p>Open oven door. Wipe panel with a cloth dampened slightly with water only and dry with a soft cloth. Avoid use of excess water.</p>	

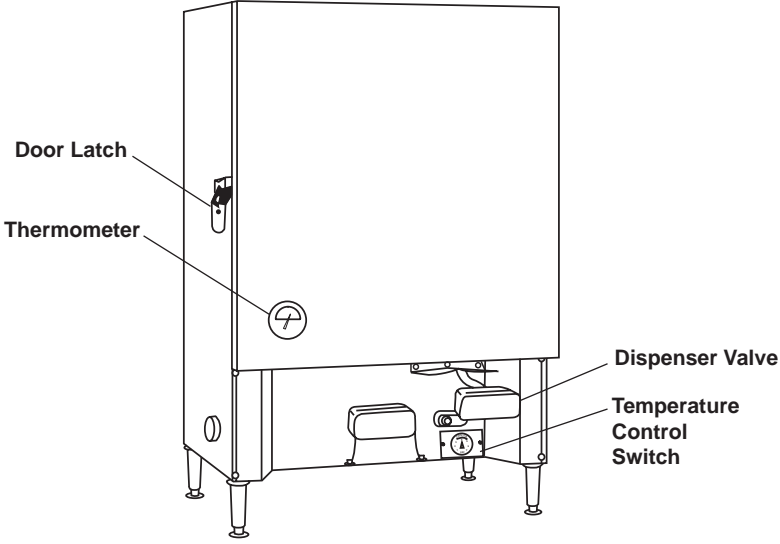
The diagram shows a microwave oven with its door open to the left. Inside the oven, the turntable is visible on its support. A separate view of the turntable is shown below the main diagram. Labels with leader lines point to the Microwave Oven, Touch Control Panel, Door, Oven, Turn Table Support, and Turn Table.

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
23	After	0.2	BEVERAGE DISPENSER Clean Bowl	Visually inspect unit for damage.  Wash bowl in soapy water. Rinse with clean water and wipe dry with soft cloth.	
24	After	0.2	Exterior	Clean exterior using clean cloth and soapy water. Wipe dry with clean soft cloth.  <b>WARNING</b>    <b>Electrical shock hazard. Shut off the power before proceeding. Electrocutation can result in serious injury or death.</b>	
25	Weekly	0.2	Condenser	Remove front and side panels from unit. Clean condenser fins using a vacuum cleaner. Install front and side panels.	

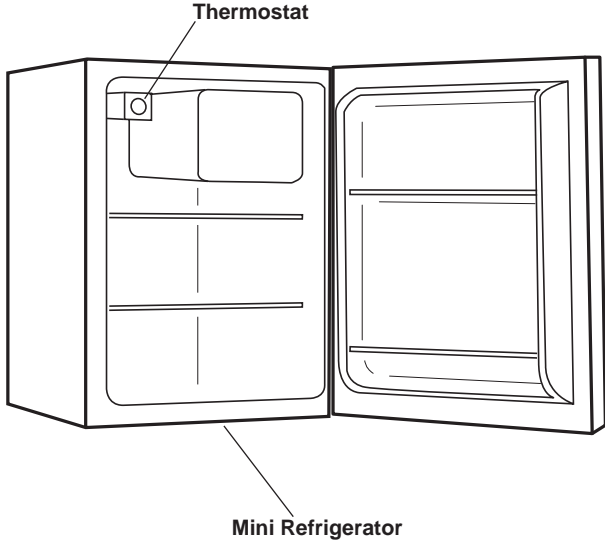


**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
26	Weekly	0.2	MILK DISPENSER Duct Panel	Inspect air duct panel and beneath unit for restrictions.	
27	Weekly	02	Condenser	Remove rear panel and clean condenser area.	
 <p>The diagram shows a side view of a milk dispenser. On the left side, there is a door with a latch labeled 'Door Latch' and a circular gauge labeled 'Thermometer'. On the right side, there is a control panel with a 'Dispenser Valve' and a 'Temperature Control Switch'. The dispenser is supported by four legs.</p>					

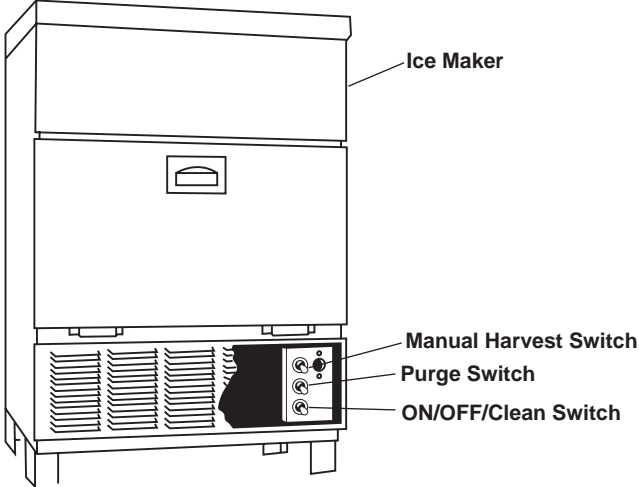
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
28	Weekly	0.2	MINI-REFRIGERATOR	Visually inspect refrigerator for damage or missing parts.	
29	Weekly	0.2	Cleanliness	Inspect interior and exterior for cleanliness. Clean using clean rag and soapy water. Rinse with clear water and wipe dry with clean soft cloth.	



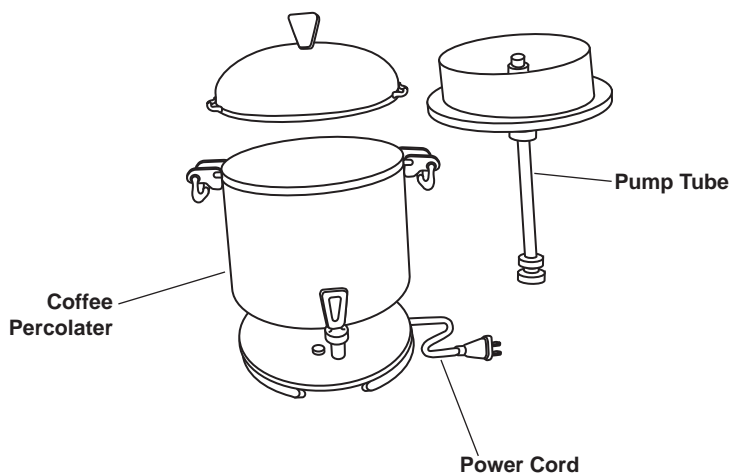
The diagram shows a side view of a mini refrigerator with its door open. A label 'Thermostat' with a leader line points to a circular control knob located on the upper left interior of the door. Another label 'Mini Refrigerator' with a leader line points to the bottom center of the unit.

**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
30	Weekly	0.2	ICE MAKER  Exterior Surface	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Icemaker must not be operated without exterior panels installed. Damage to unit could result.</p> <p>Clean exterior of unit using soapy water and clean rag. Rinse with clear water and wipe dry with clean soft cloth.</p> <div style="text-align: center;">  <p>The diagram shows a front view of a rectangular ice machine. At the top is the ice maker compartment. Below it is a door with a handle. At the bottom is a control panel with three switches: a Manual Harvest Switch, a Purge Switch, and an ON/OFF/Clean Switch. A vent grille is visible on the left side of the control panel.</p> </div>	

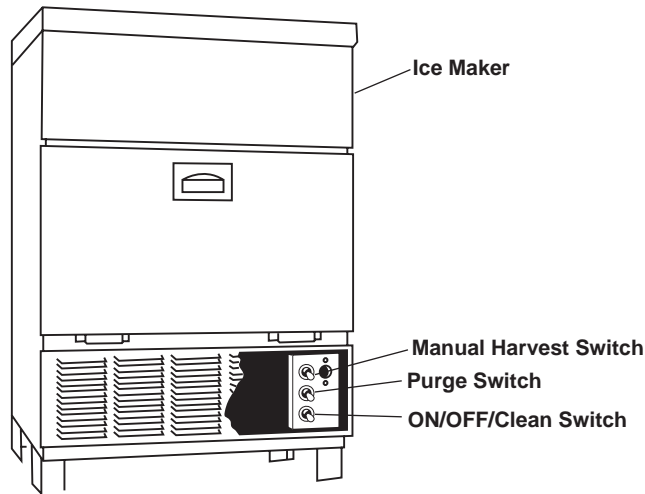
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
31	Monthly	0.2	COFFEE PERCOLATOR Power Cord	Inspect power cord and plug for cracks in insulation or other damage. Place out of service if bare wires are exposed or if plug is damaged. Repair as soon as practical.	
32	Monthly	0.2	Pump Tube	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Do not immerse percolator. Damage to the unit will result.</p> <p>Ensure that the washer in the base of the pump tube remains loose. Remove all coffee grounds by using running water or a toothpick.</p>	



**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR	PROCEDURE	EQUIPMENT NOT READY/
33	Monthly	0.2	ICE MAKER  Air Filter	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Icemaker must not be operated without exterior panels installed. Damage to unit could result.</p> <p>Remove lower front panel by removing two screws and pulling out on bottom of panel. Remove condenser air filter. Wash in soapy water, rinse, and shake out excess water and replace. Install cover and secure with two screws.</p>	



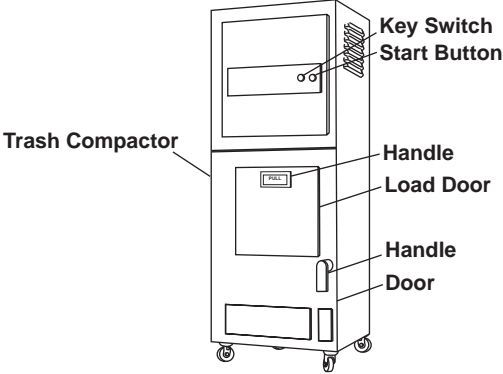
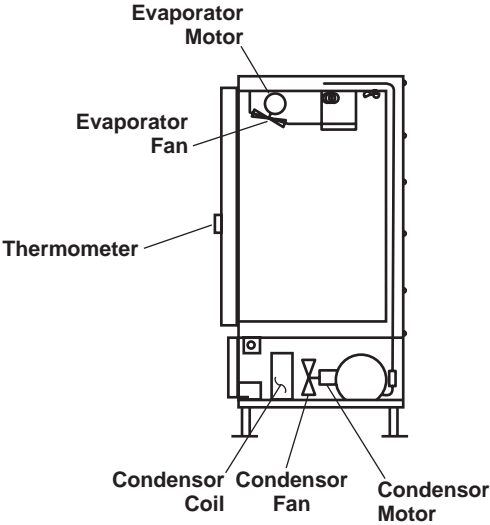
END OF WORK PACKAGE





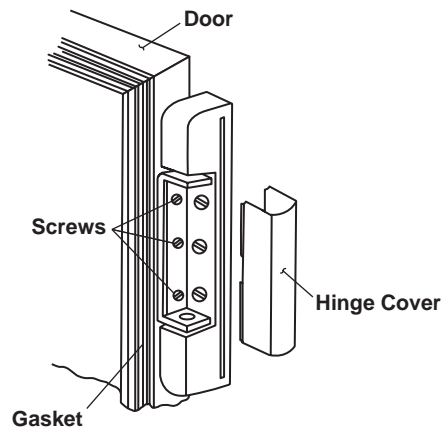
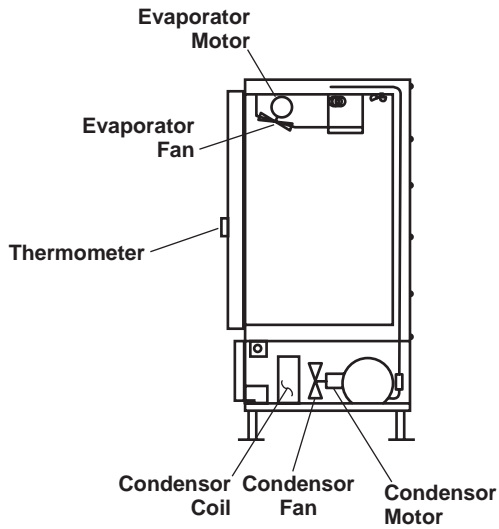
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
GALLEY**

**Table 1. Preventive Maintenance Checks and Services Chart**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.1	TRASH COMPACTOR	<p>Visually inspect compactor for damaged or missing parts.</p> 	
2	Before	0.2	<p>MARINE FREEZER AND REFRIGERATOR</p> <p>Condenser Coil</p>	<p>Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust and debris.</p> 	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.2	Drain Line	Inspect and check that drain line is unstopped.	
4	Before	0.2	Interior Liner	Check that interior liner is clean and dry.	
5	Before	0.2	Condenser and Evaporator Fan Motors	Check both the condenser fan motor and the evaporator fan motor to make certain that they are operational and that the fans are tight and secure.	
6	Before	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	
7	Before	0.2	Exterior Surfaces	Check that exterior surfaces are clean and dry.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	1.0	WALK-IN FREEZER	Check room temperature at thermostat. Temperature should be -4°F to 0°F (-20 to -18 °C).	Temperature out of range.
9	Before	0.2	Freezer Alarm	Visually inspect for damage or missing parts.	
10	Before	0.2	Condenser Coil	Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust and debris.	
11	Before	0.2	Deck Drains	Inspect and check that the deck drains are serviceable.	
12	Before	0.2	Interior Shelving	Check that interior shelving is clean and dry.	
13	Before	0.2	Evaporator Fan Motors	Visually inspect the evaporator fan motors to make certain that they are operational and that the fans are tight and secure.	
14	Before	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	

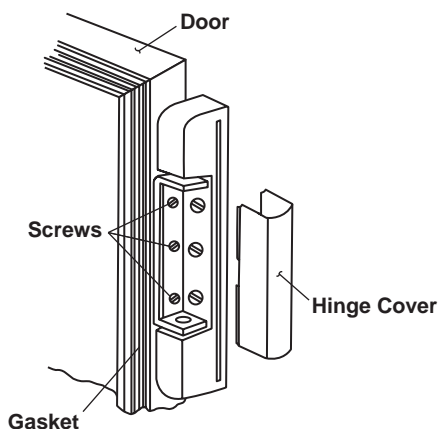
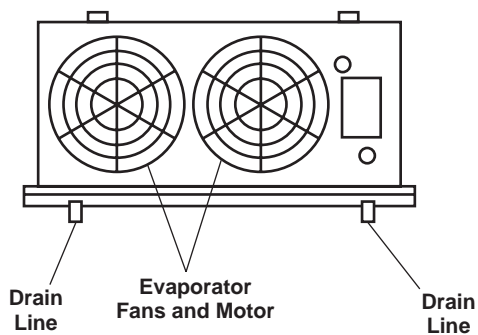
  

A technical drawing showing a top-down view of an evaporator fan assembly. It features two circular fans on the left and a central motor unit on the right. Two drain lines are shown extending from the bottom of the fan housing. Labels include 'Drain Line', 'Evaporator Fans and Motor', and 'Drain Line'.

A technical drawing showing a side view of a door gasket and hinge cover assembly. The door is shown at the top, with a gasket strip along its edge. A hinge cover is attached to the door with screws. Labels include 'Door', 'Screws', 'Gasket', and 'Hinge Cover'.

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

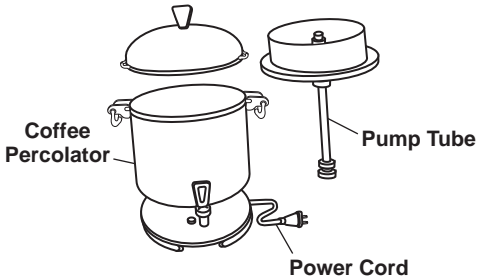
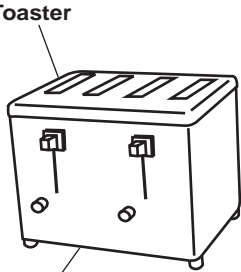
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Before	1.0	CHILL BOX	Check room temperature at thermostat. Temperature should be 33 °F to 37 °F (1 to 2 °C).	Temperature out of range.
16	Before	0.2	Refrigerator Alarm	Visually inspect for damage or missing parts.	
17	Before	0.2	Condenser Coil	Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust and debris.	
18	Before	0.2	Deck Drains	Inspect and check that the deck drains are serviceable.	
19	Before	0.2	Interior Shelving	Check that interior shelving is clean and dry.	
20	Before	0.2	Evaporator Fan Motors	Visually inspect the evaporator fan motors to make certain that they are operational and that the fans are tight and secure.	
21	Before	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	



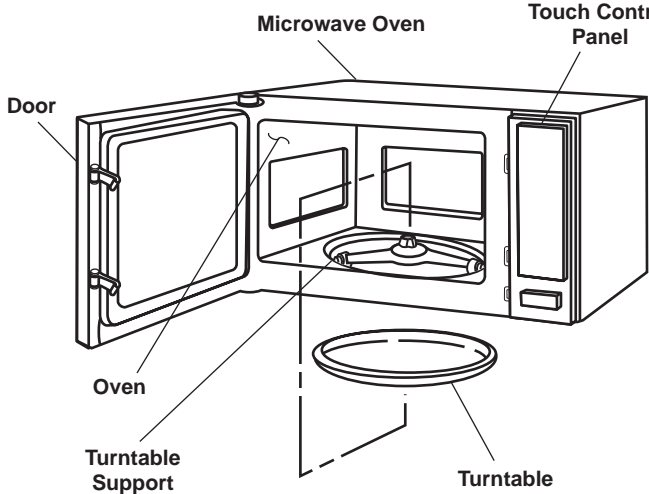
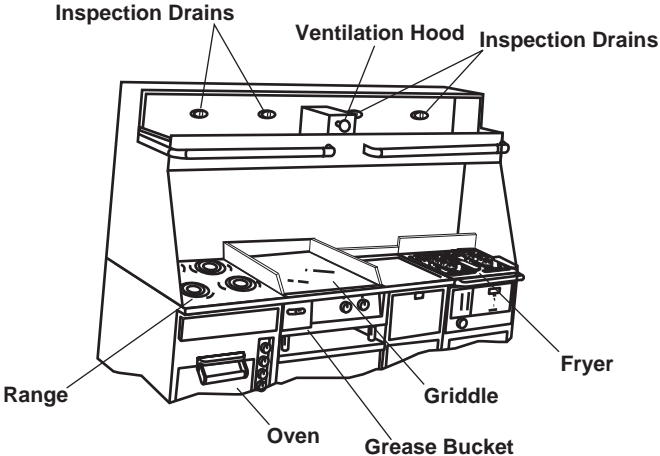
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
22	Before	0.5	SERVING LINE/STEAM TABLE	Visually inspect unit for damage.	
23	Before	0.2	Exterior Surfaces	Inspect exterior for cleanliness. Clean exterior using warm soapy water and clean cloth. Wipe dry with clean soft cloth.	
<p>The diagram shows a long, rectangular serving line or steam table. It has a flat top surface with a central section labeled 'Steam Table'. Below the top surface, there are 'Sink Walls' on either side. At the bottom of the unit, there are 'Drain Valves' and 'Heater Switches'.</p>					
24	Before	0.2	COFFEE PERCOLATOR Power Cord	Inspect power cord and plug for cracks in insulation or other damage. Place out of service if bare wires are exposed or if plug is damaged.	
25	Before	0.2	Pump Tube	Do not immerse percolator. Damage to the unit will result.	
<p>The diagram shows a coffee percolator. It consists of a main pot labeled 'Coffee Percolator' with a lid and a spigot at the bottom. A 'Pump Tube' is attached to the side of the pot. A 'Power Cord' is also shown connected to the bottom of the unit.</p>					

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
26	Before	0.2	Cleaning	Ensure that the washer in the base of the pump tube remains loose. Remove all coffee grounds by using running water or a toothpick.	
27	Before	0.2	Exterior	Clean the exterior using warm soapy water and clean cloth. Wipe dry with clean soft cloth.	
 <p>Coffee Percolator</p> <p>Pump Tube</p> <p>Power Cord</p>					
28	Before	0.2	TOASTER	Visually inspect for damage or missing parts.	
 <p>Toaster</p> <p>Crumb Tray</p>					

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
29	Before	0.2	MICROWAVE OVEN	Visually inspect for damage or missing parts.  	
30	Before	0.5	RANGE	Visually inspect the range for damage and missing parts.	
31	Before	1.0	VENTILATOR HOOD	Visually inspect hood for damage or missing parts.  	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
32	Before	0.3	GRIDDLE	Visually inspect griddle for damage or missing parts.	
33	Before	0.2	Top Surface	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Griddle surface must be warm to properly clean. Exercise care to avoid skin contact with griddle surface and possible injury.</b></p> <p>While griddle surface is WARM, apply griddle stone to clean. Wipe residue with damp cloth. Season griddle surface.</p>	
34	Before	0.2		Use spatula to remove fat and food from griddle surface; scrape down waste hole into grease bucket. Wipe all other surfaces with damp cloth and dry. Remove and empty grease bucket, wash in hot soapy water, and rinse with cool clean water.	
35	Before	0.5	FRYER	Visually inspect fryer for damage or missing parts.	

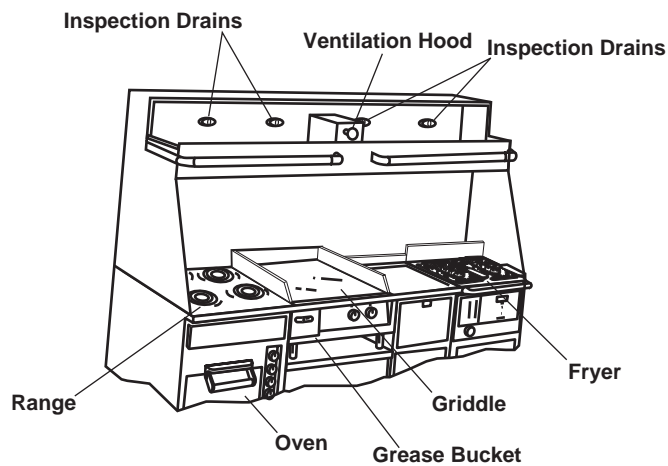
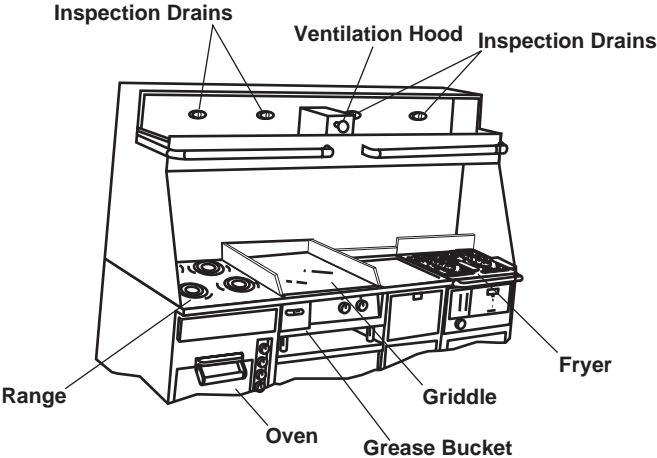
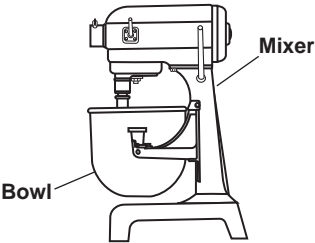

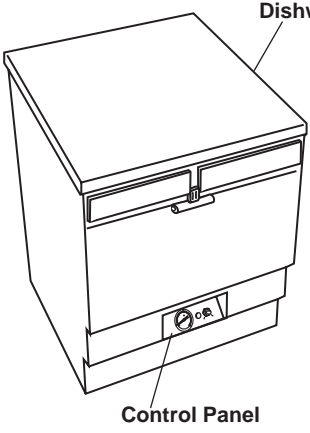




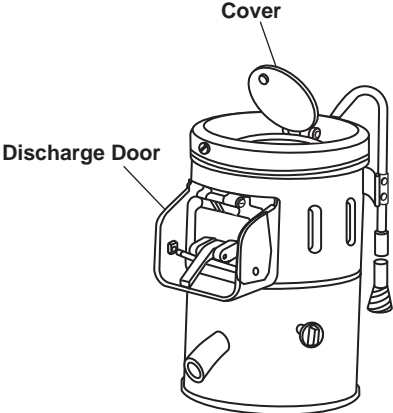
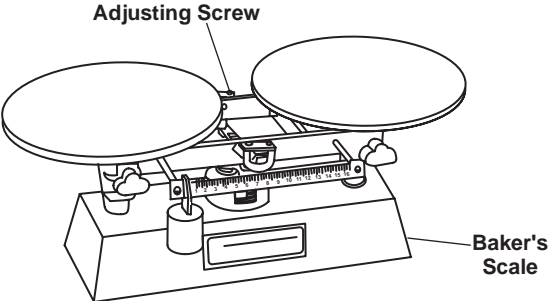
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
36	Before	0.2	Exterior Surface	<div style="border: 2px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">WARNING</div> <p><b>Hot surfaces! Exercise care to avoid skin contact with hot surfaces and possible injury.</b></p> <p>Clean all exterior surfaces using hot soapy water and clean rag. Wipe dry with clean soft cloth.</p> 	
37	Before	0.2	MIXER	<p>Visually inspect unit for damage or missing parts.</p> 	


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

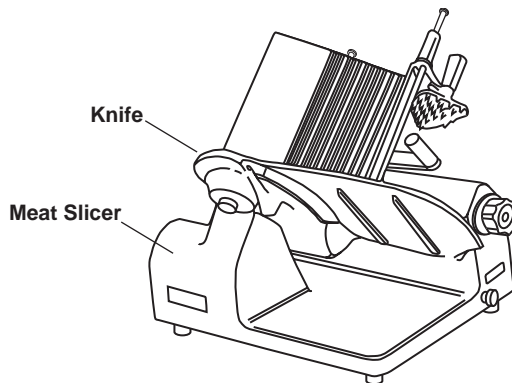
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
38	Before	0.2	GARBAGE DISPOSAL  Cleaning	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p>Never reach inside disposal. Remove foreign matter using tongs. Serious injury could result.</p> <div style="text-align: center; margin-bottom: 10px;">  <b>CAUTION</b> </div> <p>Never use chemical solvents or drain cleaning compounds in disposal. Disposal will be damaged.</p> <p>Place four ice cubes and one lemon in disposal and operate.</p>	
39	Before	0.2	DISHWASHER Exterior	Inspect for cleanliness, and clean as required.	
40	Before	0.2	Detergent Tank	<p style="text-align: center;">NOTE</p> <p>Detergent residue may build up in detergent tank. Clean as required with clear water and refill with detergent.</p> <p>Check that detergent tank is full, and add detergent as required.</p>	
41	Before	0.2	Detergent System Fittings	<p>Check that all fittings are airtight.</p> <div style="text-align: center; margin-top: 20px;">  </div>	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
42	Before	0.1	PEELER	<p>Visually inspect unit for damage or missing parts.</p> 	
43	Before	0.1	BAKER'S SCALE	<p>Visually inspect scale for damage or missing parts.</p>	
44	Before		Balance	<p>Set weights to 0, scale should balance. If not, adjust using adjusting screw.</p> 	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

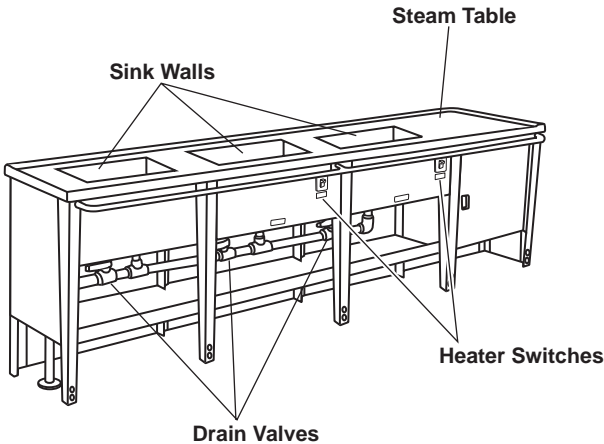

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
45	Before	0.2	MEAT SLICER	Visually inspect slicer for damage and missing parts.	
46	Before	0.2	Cleaning	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Disconnect power source before cleaning. Electrocution or serious injury could occur. Use care when cleaning near slicer knife. Serious personal injury could result.</b></p> <div style="text-align: center; margin-bottom: 10px;">  <b>CAUTION</b> </div> <p>Never wash any slicer component in dishwasher, as permanent damage will occur.</p> <p>Never use steel pads to clean the knife as the abrasive action will damage the knife.</p> <p>Use a mild dish soap, hot water and a clean cloth to thoroughly clean the slicer. Rinse the slicer using another clean cloth and clean hot water. Dry the slicer with another clean cloth.</p>	
47	Before	0.2	Lubrication	Coat upper and lower carriage slide rods with food processing equipment oil.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
48	During	0.2	MARINE FREEZER Temperature Gauge	Check the temperature gauge to ensure that the interior temperature is -10 °F (-23 °C).	
49	During	0.2	MARINE REFRIGERATOR Thermometer	Check the thermometer to ensure that the interior temperature is 35 °F (2 °C).	
<p>The diagram shows a cross-section of a marine refrigerator. At the top, inside the compartment, is the Evaporator Motor and Evaporator Fan. A Thermometer is mounted on the side wall. At the bottom, outside the compartment, are the Condensor Coil, Condensor Fan, and Condensor Motor. Lines connect the text labels to the corresponding parts in the diagram.</p>					
50	During	1.0	WALK-IN FREEZER	Check room temperature at thermostat. Temperature should be -4°F to 0°F (-20 to -18 °C).	Temperature out of range.
51	During	1.0	CHILL BOX	Check room temperature at thermostat. Temperature should be 33 °F to 37 °F (0.56 to 2.27 °C).	Temperature out of range.

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
52	During	0.2	SERVING LINE/STEAM TABLE  Sink Wells	Check that heaters warm the water in the sink wells.	
53	During	0.2		Turn OFF heaters and OPEN drain valves to drain the sink wells.	
					
GARBAGE DISPOSAL					
<div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>WARNING</b></div>					
<p>Never reach inside disposal. Remove foreign matter using tongs. Serious injury could result.</p>					
<div style="text-align: center;">  <b>CAUTION</b> </div>					
<p>Never use chemical solvents or drain cleaning compounds in disposal. Disposal will be damaged.</p>					
54	During	0.2	Unusual sounds	Observe disposal during operation for unusual sounds.	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

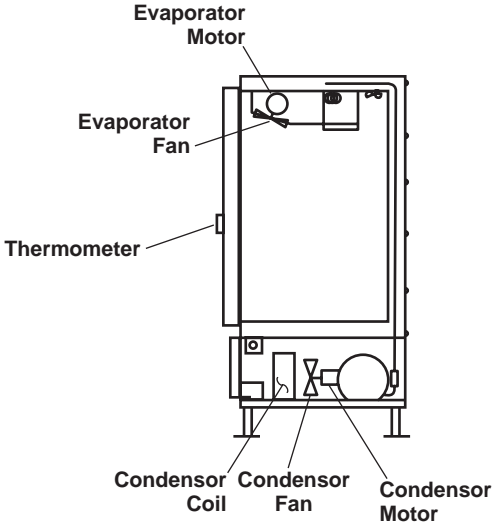
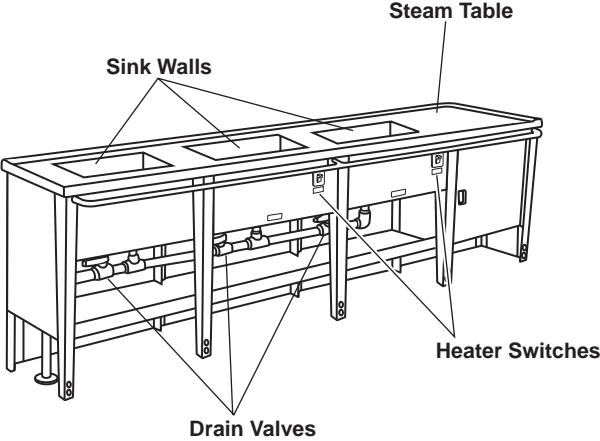
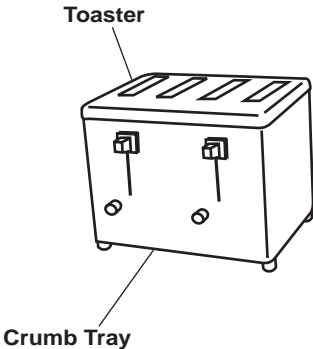
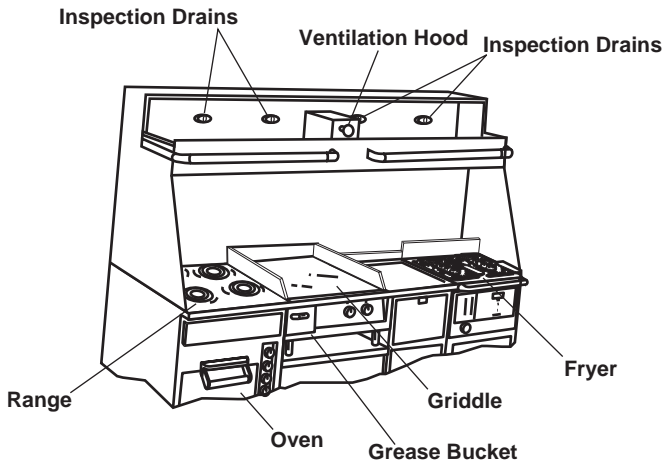
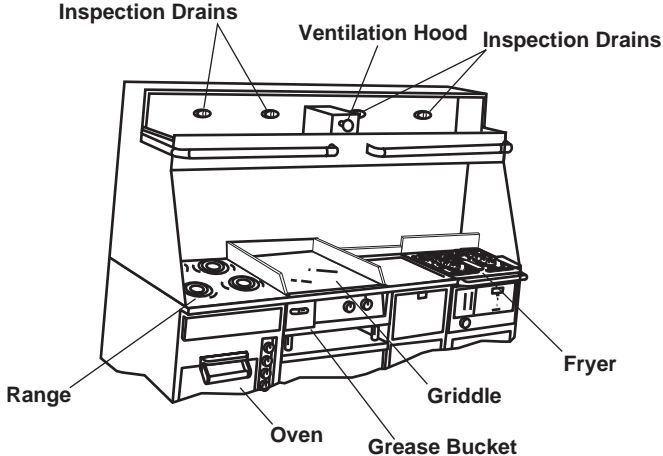
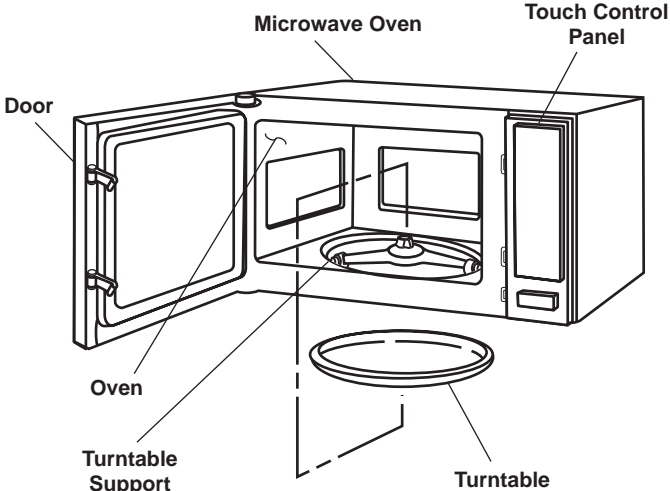
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
55	After	0.2	MARINE FREEZER Thermometer	Check the thermometer to ensure that the interior temperature is -10 °F (-23 °C).	
56	After	0.2	Exterior Surfaces	Check that exterior surfaces are clean and dry.	
					
57	After	0.2	SERVING LINE/STEAM TABLE Sink Wells	Check that heaters warm the water in the sink wells.	
58	After	0.2		Turn OFF heaters and OPEN drain valves to drain the sink wells.	
					

Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
59	After	0.2	TOASTER  Exterior Surface	<div style="border: 1px solid black; padding: 5px; text-align: center;"><b>WARNING</b></div> <p><b>Unplug toaster before cleaning. Electrocutation could result.</b></p> <p>Wipe off exterior using damp rag.</p>	
60	After	0.2	Crumb Tray	<p>Remove crumb tray, empty, clean, and replace.</p> <div style="text-align: center;">  </div>	
61	After	0.2	OVEN  Exterior Surface	<div style="text-align: center;"><b>CAUTION</b></div> <p>Never use abrasive or harsh cleaners or scouring pads. Damage to oven will result.</p> <p>Clean the outside of the oven of grease and soil buildup with mild soap and water; rinse and dry with a soft cloth. Do not use any type of household or abrasive cleaner.</p> <div style="text-align: center;">  </div>	

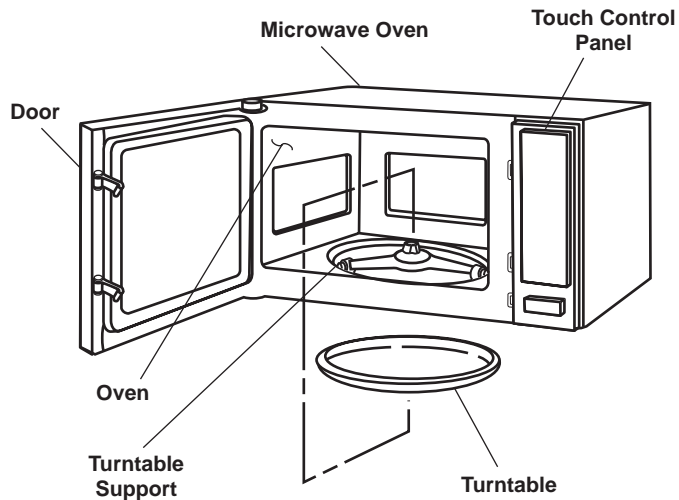


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
62	After	0.2	Interior Surfaces	<p>Check the interior surfaces for grease and soil buildup, wipe with soft cloth and warm water. Wipe wave guide cover in ceiling of oven with soft damp cloth to remove food. For heavier soil, use baking soda or mild soap; rinse thoroughly with hot water and wipe dry.</p> 	
63	After	0.2	MICROWAVE OVEN	<p>Check for unusual odors. Odors can be eliminated from the inside of the oven by boiling a solution of one cup of water and several tablespoons of lemon juice in the oven for 5 to 7 minutes. Wipe out excess moisture after every use.</p> 	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
64	After	0.2	Turntable/Turntable Support	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Handle turntable support carefully. If dropped, damage to turntable support will result</p> <p>Remove turntable and turntable support for cleaning. Clean floor of oven with mild soap and water; rinse and dry with a soft cloth. Clean turntable and support in mild sudsy water or in dishwasher. Dry with a soft cloth.</p>	
65	After	0.2	Touch Control Panel	Clean touch control panel with mild soap and water.	
66	After	0.2	Vents	Clean vents by wiping with soft cloth.	
67	After	0.2	Door	OPEN oven door and wipe panel with a cloth dampened slightly with water only and dry with a soft cloth. Avoid use of excess water.	



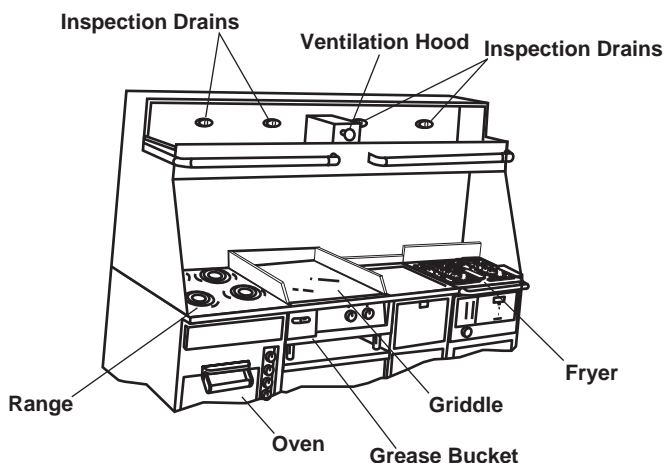
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
68	After	0.2	RANGE Top Surface	Clean range surfaces daily using soapy water and clean cloth; wipe dry.	
69	After	0.2	Exterior Surface	Thoroughly clean range using soapy water and clean cloth; wipe dry.	
70	After	0.2	Oven/Racks	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Any oven cleaner used must be marked "SAFE ON ALUMINUM" or damage to range will result.</p> <p>Clean the oven and oven racks. Observe all safety precautions and follow label directions.</p>	
71	After	0.2	VENTILATOR HOOD Interior	Open inspection doors; ensure that interior is clean and free of grease, lint, and dust. If interior is dirty, refer to unit maintenance.	
72	After	0.2	Main Grease Gutter	Check main grease gutter and remove any foreign material.	

The diagram shows a kitchen range with a ventilation hood. Labels with leader lines point to the following components: Inspection Drains (two locations on the hood), Ventilation Hood (top center), Range (left side), Oven (bottom left), Griddle (bottom center), Grease Bucket (bottom right), and Fryer (far right).

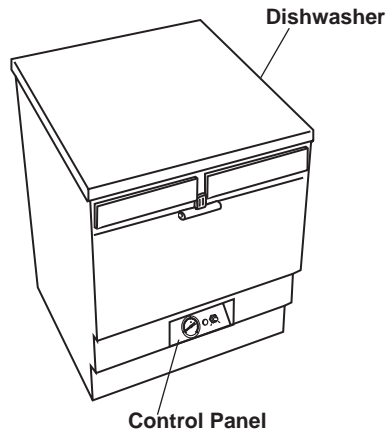
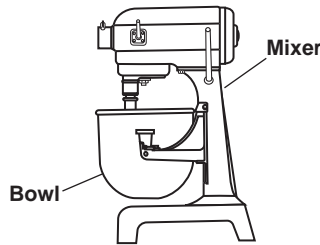
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
73	After	0.2	GRIDDLE Top Surface	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Griddle surface must be warm to properly clean. Exercise care to avoid skin contact with griddle surface and possible injury.</b></p>	
74	After	0.2		While griddle surface is WARM, apply griddle stone to clean. Wipe residue with damp cloth. Season griddle surface.	
75	After	0.2		Use spatula to remove fat and food from griddle surface; scrape down waste hole into grease bucket. Wipe all other surfaces with damp cloth and dry. Remove and empty grease bucket, wash in hot soapy water, and rinse with cool clean water.	
76	After	0.2	FRYER Exterior Surface	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Hot surfaces! Exercise care to avoid skin contact with hot surfaces and possible injury.</b></p>	
77	After	0.2		Clean all exterior surfaces using hot soapy water and clean rag. Wipe dry with clean soft cloth.	

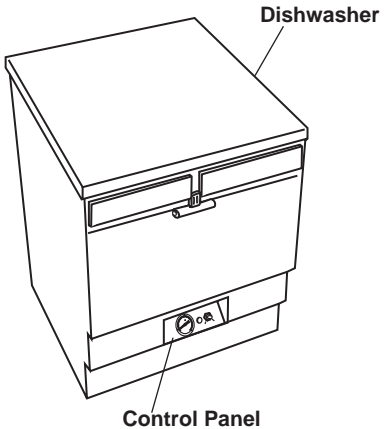
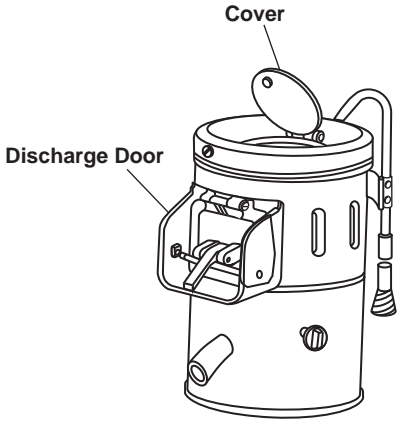


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			MIXER	<div style="border: 2px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">WARNING</div> <p><b>Unplug mixer before cleaning. Electrocutation could result.</b></p>	
78	After	0.2	Exterior Surface	Clean exterior using hot, soapy water and clean cloth. Wipe dry with clean soft cloth.	
79	After	0.2	Lubrication	Apply a light coat of food processing equipment grease to both slideways.	
			DISHWASHER		
80	After	0.2	Exterior	Inspect for cleanliness, and clean as required.	
81	After	0.2	Interior	Inspect for cleanliness. Clean as required.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
82	After	0.2	Detergent Tank	<p><b>NOTE</b></p> <p>Detergent residue may build up in detergent tank. Clean as required with clear water and refill with detergent.</p> <p>Check that detergent tank is full, and add detergent as required.</p>	
83	After	0.2	Interior	<p>At the conclusion of the wash cycle, check that the interior is clean, and wipe the interior of the machine with a damp cloth.</p> <div style="text-align: center;">  <p>Dishwasher</p> <p>Control Panel</p> </div>	
84	After	0.2	<p>PEELER</p> <p>Cover and Interior</p> <div style="text-align: center;">  <p>Cover</p> <p>Discharge Door</p> </div>	<p><b>CAUTION</b></p> <p>Washing peeler disc with hot water could damage disc.</p> <p>Remove cover and peeling disc, wash peeling disc thoroughly with cold water only.</p>	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
85	After	0.2	Inside	Wash inside of peeler thoroughly and rinse with warm water using flexible hose.	
86	After	0.2	Discharge Door	Store peeler with discharge door open. This will prolong life of peeler.	
87	After	0.2	Grease Cups	Remove cover and peeling disc. Turn grease cups 1/4 turn. When cups no longer turn, remove and refill with food processing equipment grease. Refer to TM-55-1925-226-24&P for further lubrication instructions.	

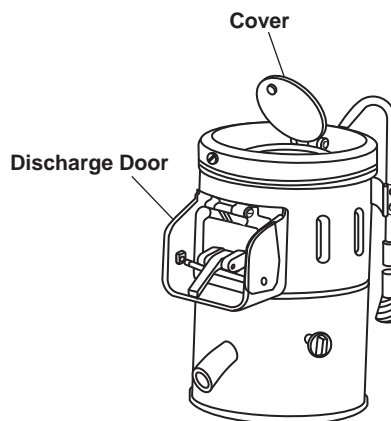
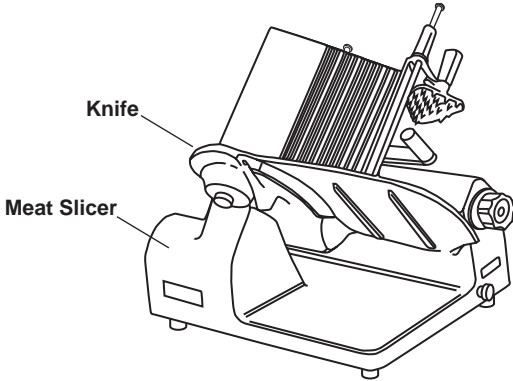


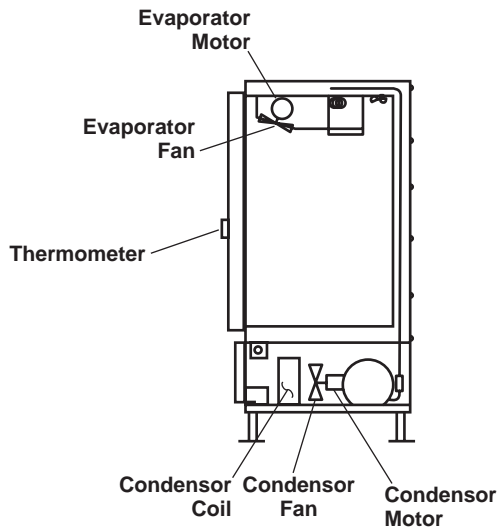
Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
88	After	0.2	MEAT SLICER	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"> <p><b>WARNING</b></p> </div> <p>Disconnect power source before cleaning. Electrocutation or serious injury could occur. Use care when cleaning near slicer knife. Serious personal injury could result.</p> <div style="text-align: center; margin-bottom: 10px;"> <p><b>⚠ CAUTION</b></p> </div> <p>Never wash any slicer component in dishwasher, as permanent damage will occur.</p> <p>Never use steel pads to clean the knife as the abrasive action will damage the knife.</p> <p>Use a mild dish soap, hot water and a clean cloth to thoroughly clean the slicer. Rinse the slicer using another clean cloth and clean hot water. Dry the slicer with another clean cloth.</p> <div style="text-align: center; margin-top: 20px;">  <p>The diagram shows a side view of a meat slicer. A label 'Knife' points to the rotating blade assembly at the top. Another label 'Meat Slicer' points to the main body of the machine, including the motor and the collection tray.</p> </div>	



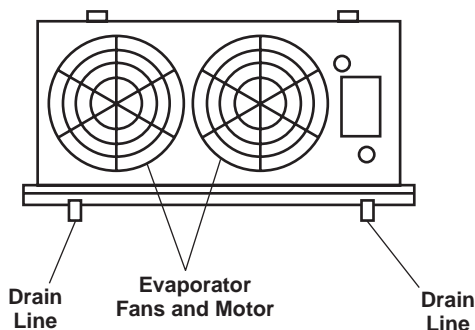
**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
89	Weekly	0.2	MARINE FREEZER AND REFRIGERATOR  Condenser Coil	Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust and debris.	
90	Weekly	0.2	Drain Line	Inspect and check that drain line is unstopped.	
91	Weekly	0.2	Condenser and Evaporator Fan Motors	Check both the condenser fan motor and the evaporator fan motor to make certain that they are operational and that the fans are tight and secure.	

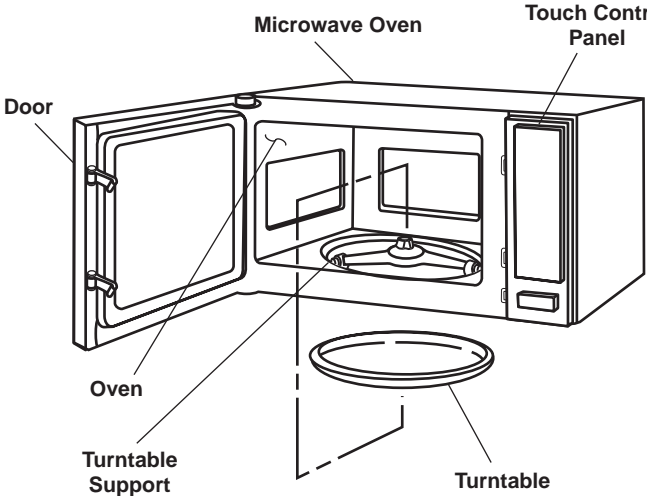
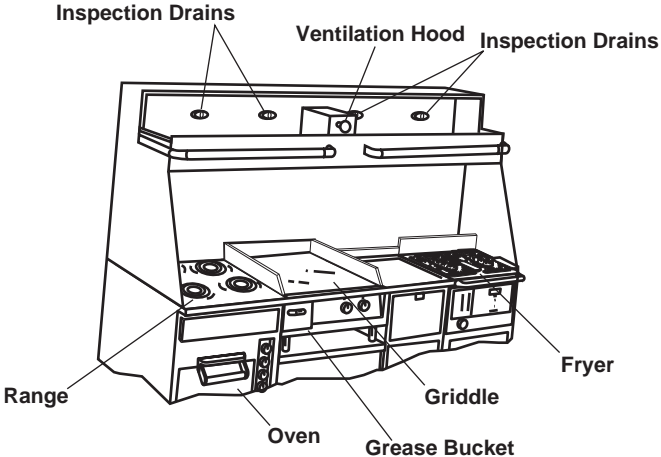


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
92	Weekly	0.2	WALK-IN FREEZER Freezer Alarm	Visually inspect for damage or missing parts.	
93	Weekly	0.2	Condenser Coil	Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust an debris.	
94	Weekly	0.2	Deck Drains	Inspect and check that the deck drains are serviceable.	
95	Weekly	0.2	Interior Shelving	Check that interior shelving is clean and dry.	
96	Weekly	0.2	Evaporator Fan Motors	Visually inspect the evaporator fan motors to make certain that they are operational and that the fans are tight and secure.	
97	Weekly	0.2	CHILL BOX Refrigerator Alarm	Visually inspect for damage or missing parts.	
98	Weekly	0.2	Condenser Coil	Inspect condenser coil to make certain that air flow is not hampered and that it is clear of dust an debris.	
99	Weekly	0.2	Deck Drains	Inspect and check that the deck drains are serviceable.	
100	Weekly	0.2	Interior Shelving	Check that interior shelving is clean and dry.	
101	Weekly	0.2	Evaporator Fan Motors	Visually inspect the evaporator fan motors to make certain that they are operational and that the fans are tight and secure.	

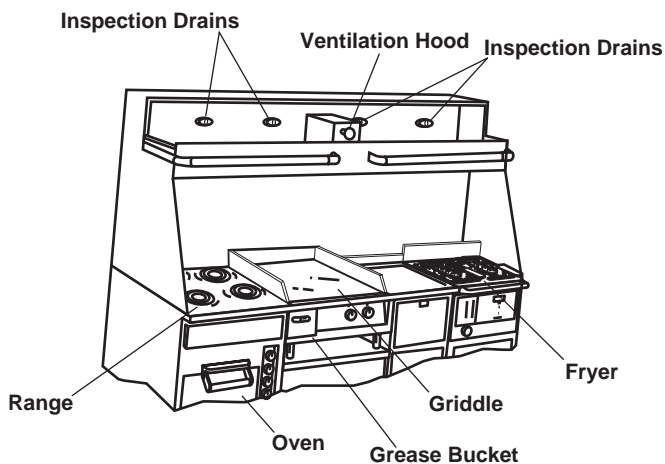


**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

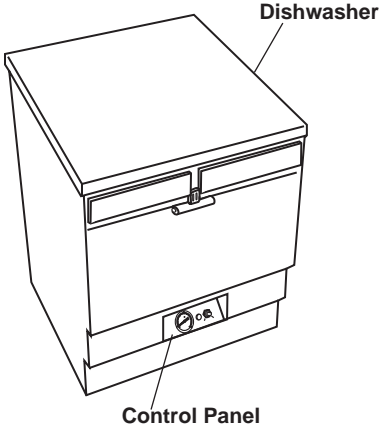
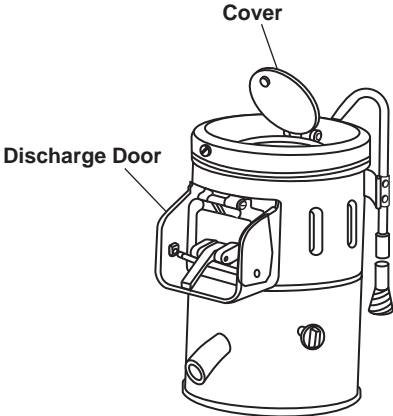
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
102	Weekly	0.2	MICROWAVE OVEN  Vents	Clean vents by wiping with soft cloth.	
					
103	Weekly	0.2	VENTILATOR HOOD  Detergent Tank	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Use of other detergents could cause damage to O-rings, seals, diaphragms, washers, or tubing.</p> <p>Check level. Refill as required. Use only Gaylord formula G-510 detergent.</p>	
					

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

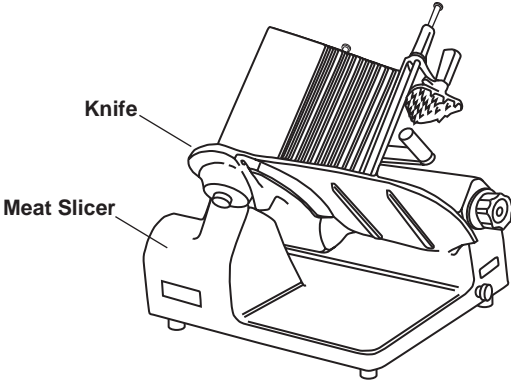
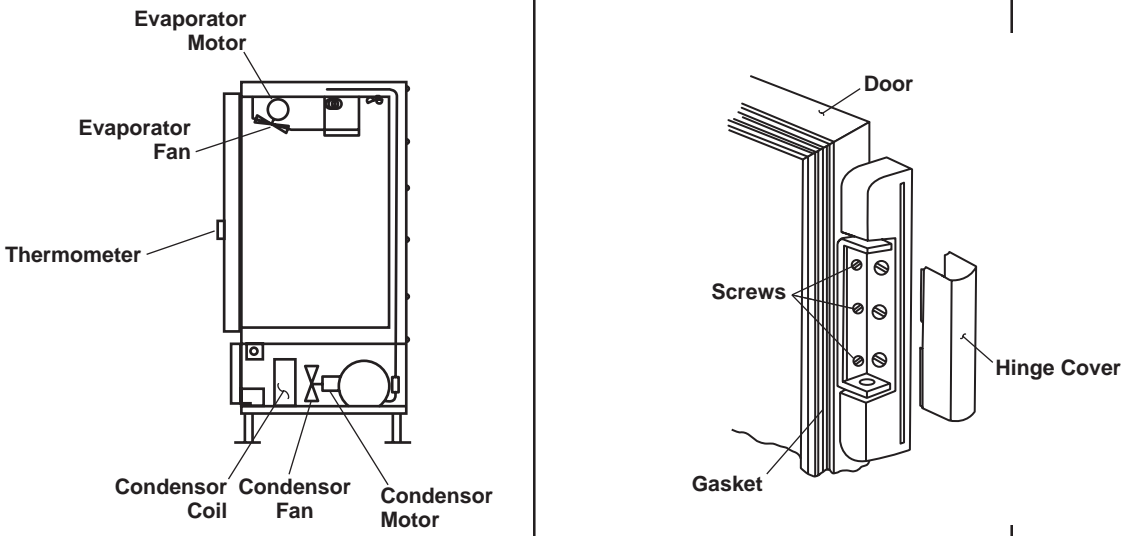
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
104	Weekly	0.2	Detergent System Fittings	Using fingers, ensure that there are no loose fittings.	
105	Weekly	0.1	SPRAY UNIT	Inspect nozzle for sediment and scale buildup.	
106	Weekly	0.2	Hose	Inspect hose for damage or fraying.	
107	Weekly	0.2	GARBAGE DISPOSAL Cleaning	Place four ice cubes and one lemon in disposal and operate.	



**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
108	Weekly	0.2	DISHWASHER/ SANITIZER  Wash Arms	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Do not grasp wash arms at ends. Hold at hub or damage to wash arms could result.</p> <p>Remove lower wash arm by grasping it by the hub and pull up and out of the machine. Remove upper wash arm by carefully loosening the retaining screw. Wash thoroughly in hot soapy water in sink. Clean strainer in bottom of dishwasher before installing wash arms.</p> 	
109	Weekly	0.2	PEELER  Grease Cups	<p>Remove cover and peeling disc. Turn grease cups 1/4 turn. When cups no longer turn, remove and refill with food processing equipment grease.</p> 	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
110	Weekly	0.2	MEAT SLICER Lubrication	Coat upper and lower carriage slide rods with food processing equipment oil.  	
111	Monthly	0.2	MARINE FREEZER AND REFRIGERATOR Interior Liner	Check that interior liner is clean and dry.	
112	Monthly	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	
113	Monthly	0.2	Exterior Surfaces	Check that exterior surfaces are clean and dry.  	

**Table 1. Preventive Maintenance Checks and Services Chart (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
114	Monthly	1.0	WALK-IN FREEZER	Check room temperature at thermostat. Temperature should be -4°F to 0°F (-20 to -18 °C).	Temperature out of range.
115	Monthly	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	
116	Monthly	1.0	CHILL BOX	Check room temperature at thermostat. Temperature should be 33 °F to 37 °F (1 to 2 °C).	Temperature out of range.
117	Monthly	0.2	Door Gaskets	Check that door gaskets are clean and serviceable.	

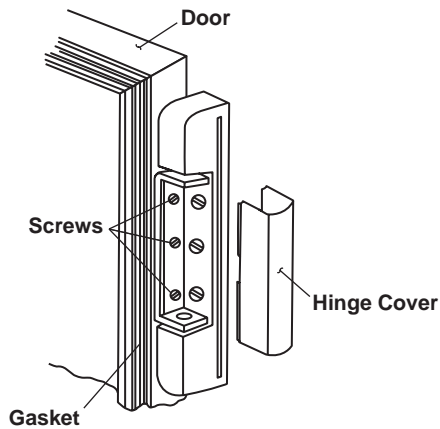


Table 1. Preventive Maintenance Checks and Services Chart (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
118	Monthly	0.2	COFFEE PERCOLATOR Power Cord	Inspect power cord and plug for cracks in insulation or other damage. Place out of service if bare wires are exposed or if plug is damaged.	
119	Monthly	0.2	Pump Tube	<p style="text-align: center;"><b>⚠ CAUTION</b></p> Do not immerse percolator. Damage to the unit will result	
120	Monthly	0.2		Ensure that the washer in the base of the pump tube remains loose. Remove all coffee grounds by using running water or a toothpick.	
121	Quarterly	0.2	PEELER Lubrication	Place a few drops of oil on each end of the motor.	



**Table 2. Lubricant Specifications**

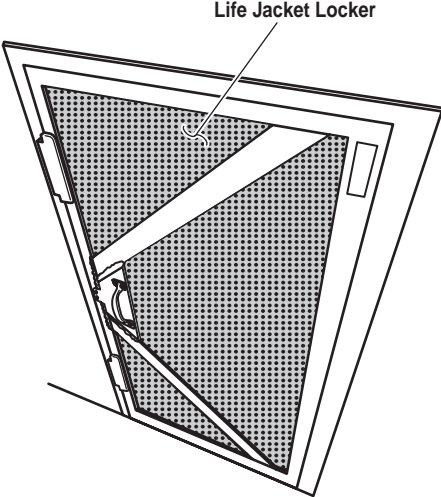
<b>Equipment to Lubricate</b>	<b>Lubricant Specification</b>	<b>Application Method</b>
Meat Slicer Carriage Sliding Rods	Food Processing Equipment Oil (DOD-L-24651)	Brush
Mixer Slideways	Food Processing Equipment Grease (DOD-G-24651)	Brush
Peeler Grease Cups	Food Processing Equipment Grease (DOD-G-24651)	Pack
Peeler Motor	General Purpose Lubricating Oil (MIL-PRF-32033)	Can

END OF WORK PACKAGE



**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
MAIN DECK STATEROOMS, SANITARY SPACES, AND PASSAGEWAY**

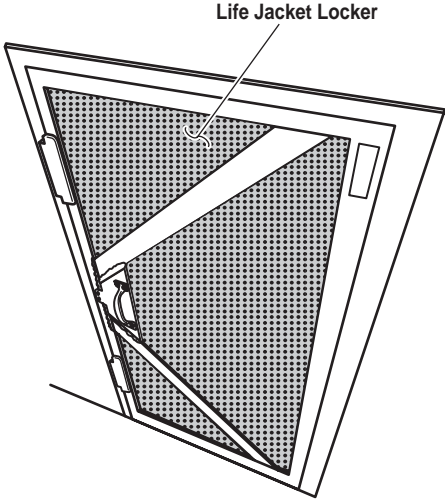
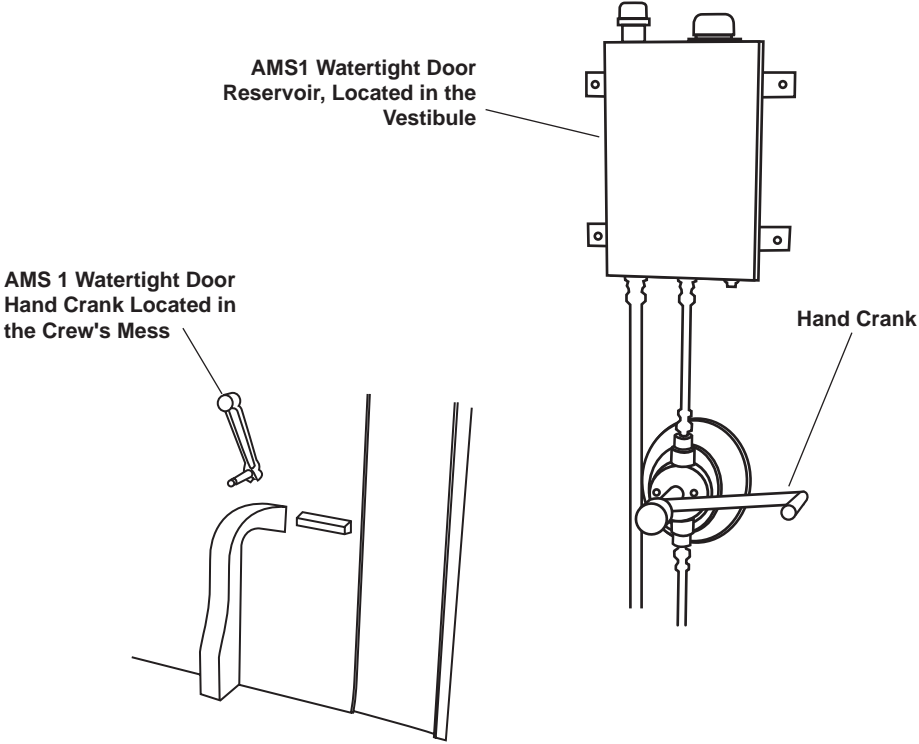
**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.3	Life Jacket Locker	<p>Inspect locker for secure mounting and obvious damage. Ensure that life jackets are properly stored and that they are undamaged.</p> <div style="text-align: center;">  <p>The diagram shows a perspective view of a square life jacket locker. It has a mesh interior and a frame. A label 'Life Jacket Locker' with a pointer indicates the locker's location on a surface.</p> </div>	Not enough undamaged life jackets for the entire crew and passengers.

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			AMS 1 WATER-TIGHT DOOR REMOTE HAND PUMP STATION		
3	Before	0.2	Hand Pump and Reservoir	Inspect for leaks and secure mounting. Check oil level. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
4	Before	0.2	Hand Pump Crew's Mess	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.
5	During	0.2	Hand Pump and Reservoir	Inspect for leaks and secure mounting. Check oil level. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
6	During	0.2	Hand Pump	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.
7	Weekly	0.2	Hand Pump and Reservoir	Inspect for leaks and secure mounting. Check for leaks. Add oil (OE/HDO-40) as required.	Class III leaks or components not securely mounted.
8	Weekly	0.2	Hand Pump	Operate the hand pump to close the door and ensure smooth operation of the pump and correct operation of the door. Check for leaks.	Door does not operate.
9	Monthly	0.2	Reservoir	Check oil level on dipstick and add oil (OE/HDO-40) as required.	

**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Monthly	0.3	Life Jacket Locker  	 <p>Inspect locker for secure mounting and obvious damage. Ensure that life jackets are properly stored and that they are undamaged.</p>	Not enough undamaged life jackets for the entire crew and passengers.

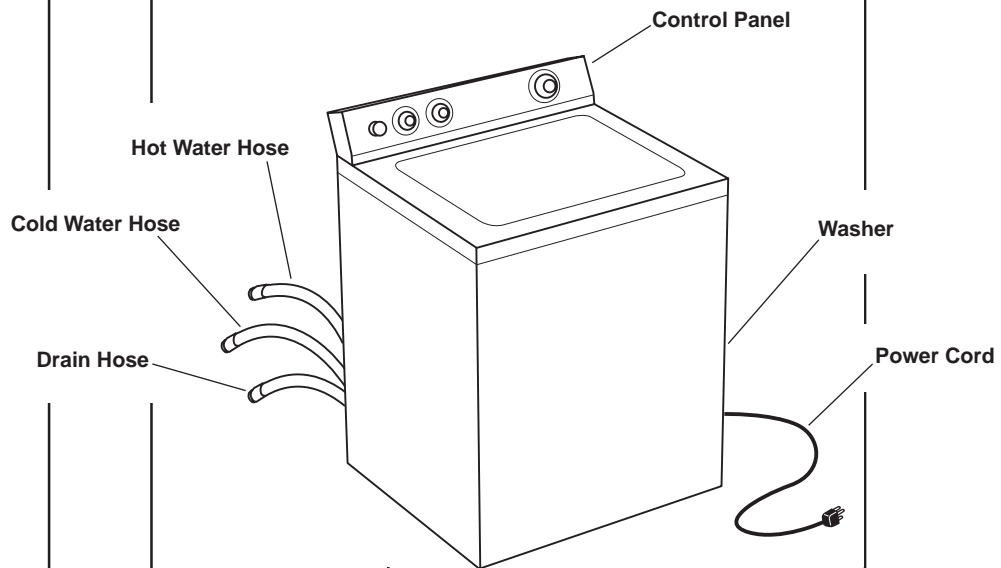
**Table 2. Lubrication Specifications**

<b>Item Lubricated</b>	<b>Lubricant</b>	<b>Military Specification</b>
Sliding Hydraulic Watertight Door	Oil OE/HDO-40	MIL-PRF-2104

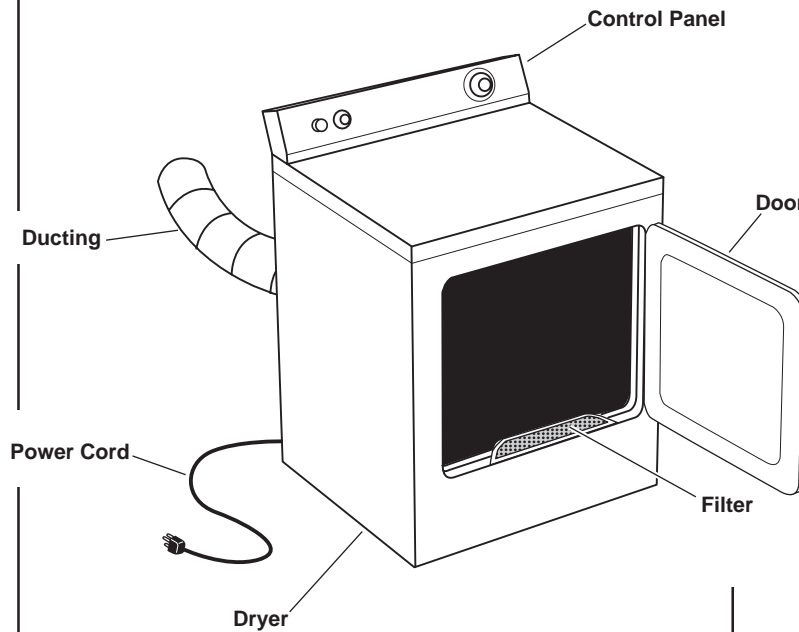
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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
BOATSWAIN'S STORE, ARMS LOCKER, AND LAUNDRY ROOM**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p style="text-align: center;">LAUNDRY ROOM</p> <p style="text-align: center;">WASHER</p>		
1	Before	0.2	Hoses	Inspect hoses for serviceability and leaks, and ensure that the drain connection is secure. During operation verify that there are no unusual sounds.	
2	Before	0.2	Power Cord	Inspect power cord for serviceability.	
3	Before	0.2	Ground	Ensure that ground wire connections are secure and ground wire is serviceable.	
4	Before	0.2	Filter	Clean filter, if applicable.	
5	Before	0.2	Control Panel	Inspect for obvious damage or missing controls or indicators.	

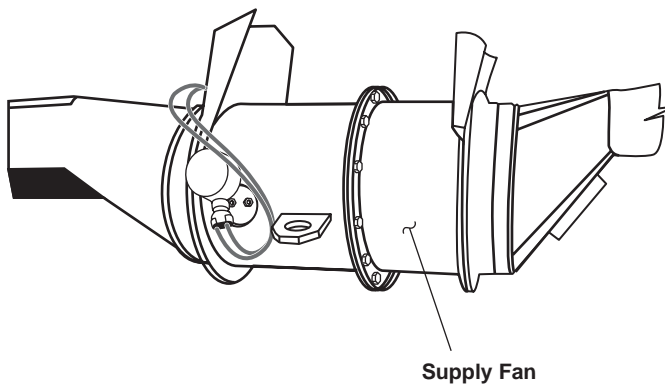
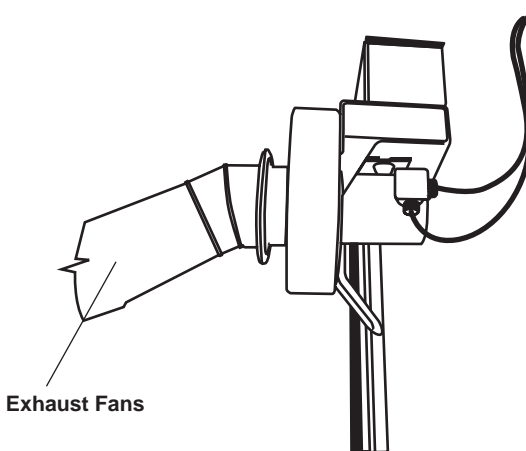


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.2	DRYER Power Cord	Inspect power cord for serviceability.	
7	Before	0.2	Ground	Ensure that ground wire connections are secure and ground wire is serviceable	
8	Before	0.2	Filter	Clean filter.	
9	Before	0.2	Control Panel	Inspect for obvious damage or missing controls or indicators.	
10	Before	0.2	Operation	Verify that the IN USE indicator is lit, and that there are no unusual noises.	

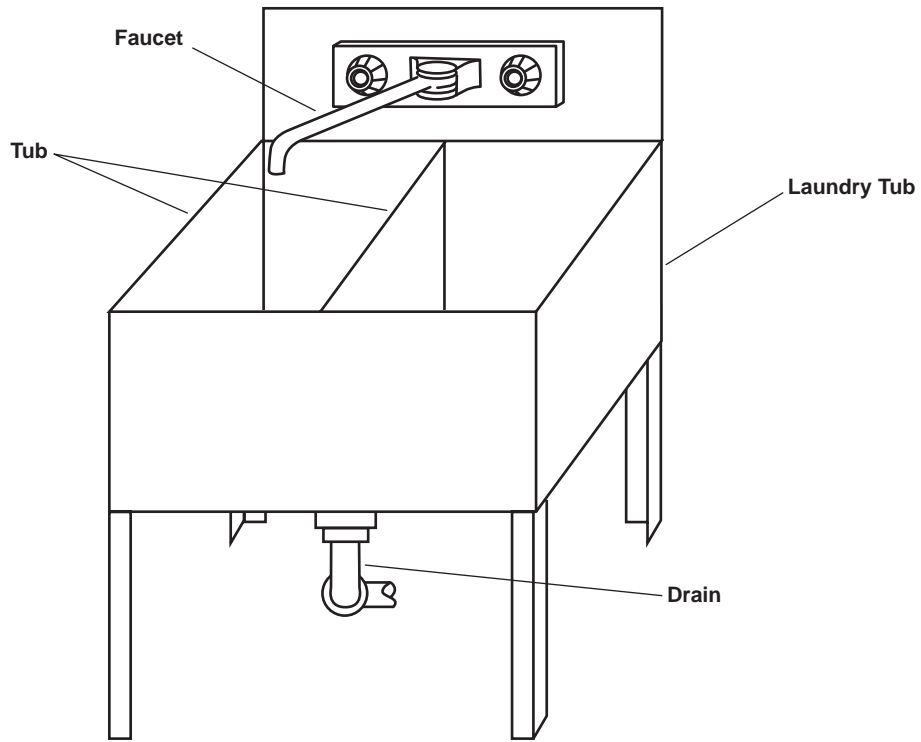




ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	During	0.2	BOATSWAIN'S STORE Ventilation System	Check unit for unusual noises, and ensure that the damper operates properly.	

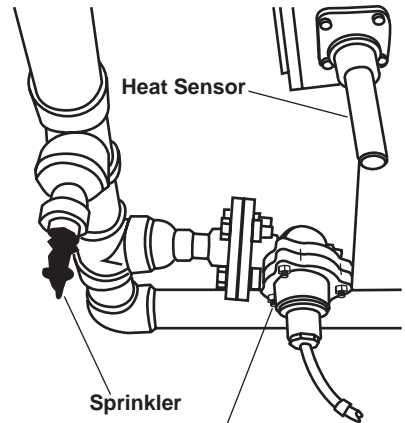
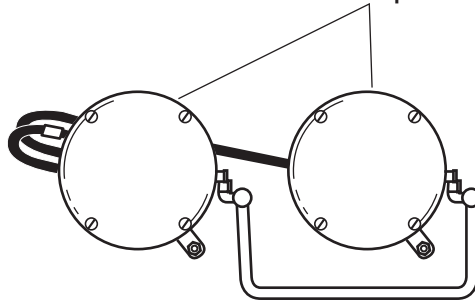


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	During	0.1	LAUNDRY TUB Tub	Inspect for secure mounting.	
13	During	0.2	Faucet	Inspect for secure mounting and leaks.	
14	During	0.2	Drain	Verify that the tub drains by plugging the drain, filling the tub with 2 inches of water, removing the drain plug and verifying that the water drains.	



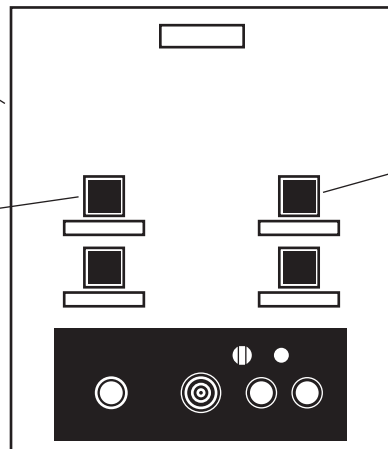
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Weekly	0.2	ARMS STOWAGE ROOM Ammo Locker	Visually inspect locker for damage or missing parts.	
16	Weekly	0.2	SPRINKLER HEADS	Visually inspect for corrosion or damage, and refer to unit maintenance if unserviceable.	Sprinkler heads are corroded or damaged enough to affect operation.
17	Monthly	0.2	ARMS STOWAGE ROOM Arms Stowage Alarm System	Check high temperature sensors and security alarm. Visually inspect obvious damage, missing parts and tampering.	

Arms Room Water and Temperature Alarm



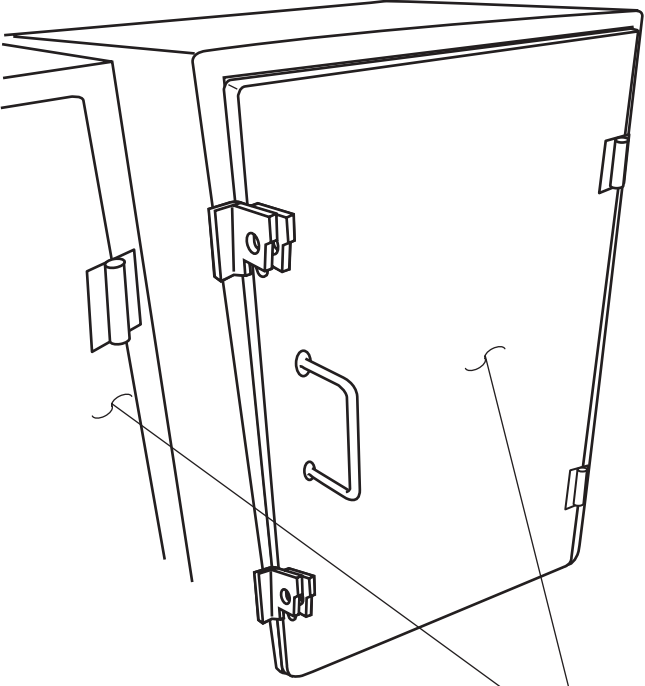
Alarm Switch Board Located in the Pilothouse

Arms Room Water Level Alarm Indicator

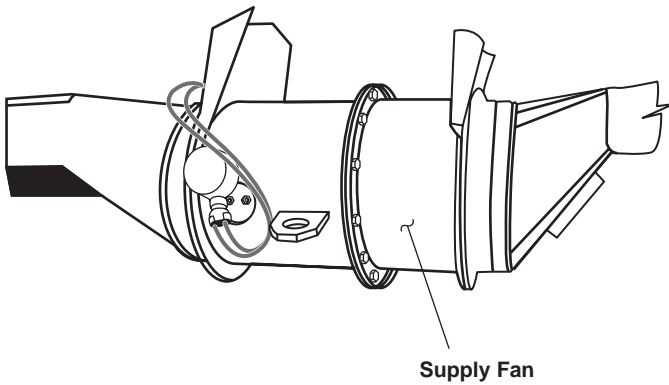
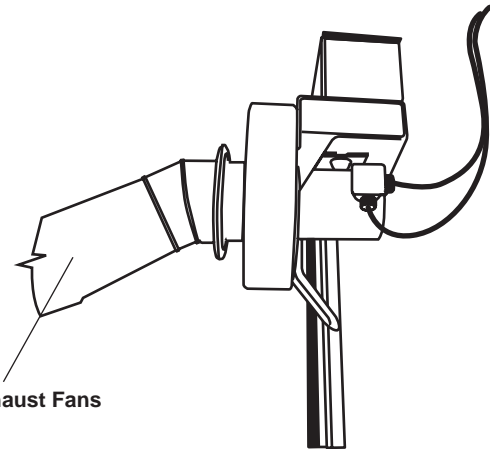


Arms Room High Temperature Alarm Indicator

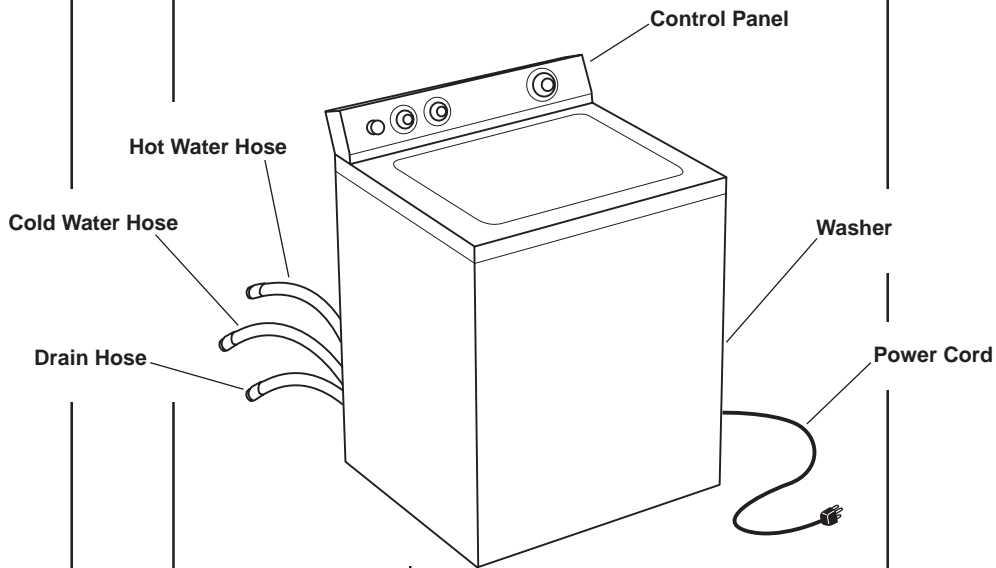
Water Pressure Switch

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
18	Monthly	0.2	STORAGE LOCKERS	<p>Inspect lockers for secure mounting, and ensure that they can be adequately secured to protect contents.</p>  <p>Arms and Ammo Lockers</p>	

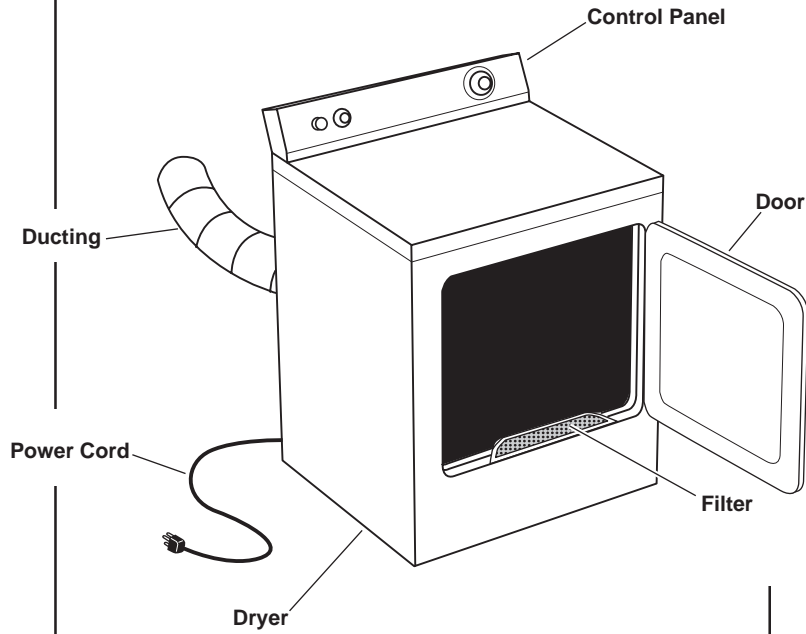
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Monthly	0.2	BOATSWAIN'S STORE  Ventilation System	Check unit for unusual noises, and ensure that the damper operates properly.	



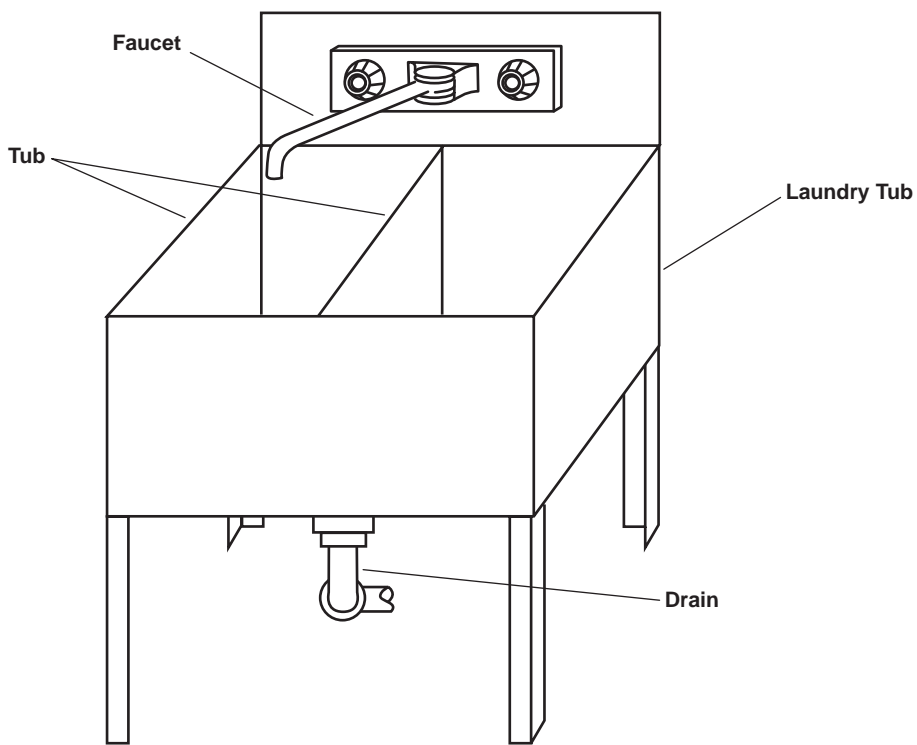
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
20	Monthly	0.2	LAUNDRY ROOM WASHER Hoses	Inspect hoses for serviceability and leaks, and ensure that the drain connection is secure. During operation verify that there are no unusual sounds.	
	Monthly	0.2	Power Cord	Inspect power cord for serviceability.	
	Monthly	0.2	Ground	Ensure that ground wire connections are secure and ground wire is serviceable.	
	Monthly	0.2	Filter	Clean filter, if applicable.	
	Monthly	0.2	Control Panel	Inspect for obvious damage or missing controls or indicators.	



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p>DRYER</p>		
25	Monthly	0.2	Power Cord	Inspect power cord for serviceability.	
26	Monthly	0.2	Ground	Ensure that ground wire connections are secure and ground wire is serviceable	
27	Monthly	0.2	Filter	Clean filter.	
28	Monthly	0.2	Control Panel	Inspect for obvious damage or missing controls or indicators.	
29	Monthly	0.2	Operation	If applicable, verify that the IN USE indicator is lit, and no unusual noises are audible.	



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
30	Monthly	0.2	Tub	Inspect for secure mounting.	
31	Monthly	0.2	Faucet	Inspect for secure mounting and leaks.	
32	Monthly	0.2	Drain	Verify that the tub drains by plugging the drain, filling the tub with 2 inches of water, removing the drain plug and verifying that the water drains.	

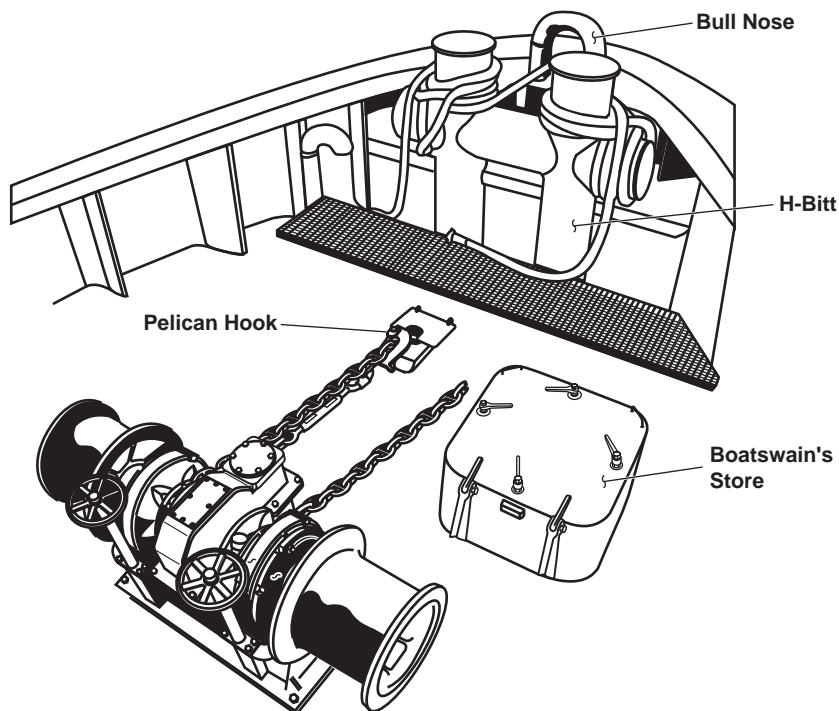


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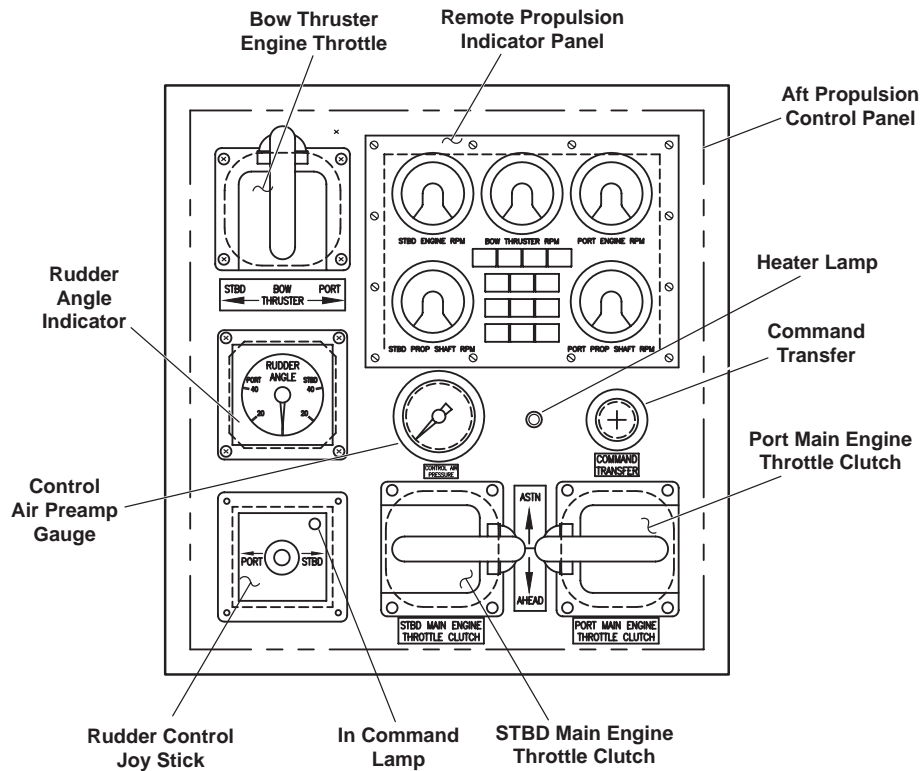
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
01 LEVEL WEATHER DECKS**

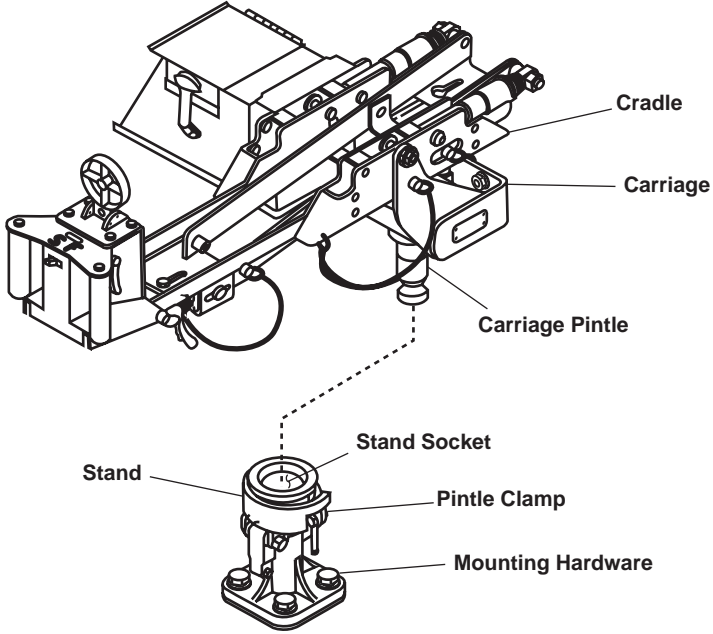
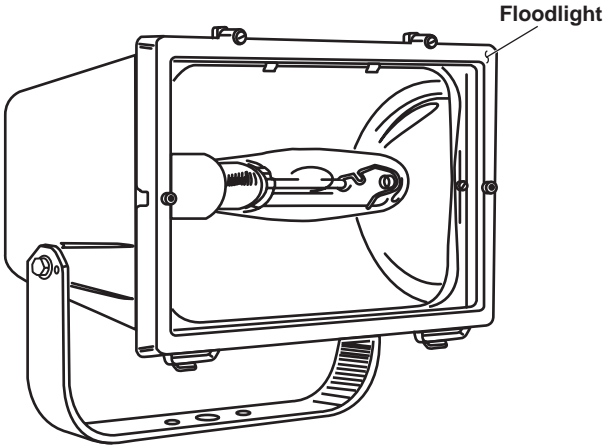
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.3	EXTERNAL STRUCTURES	Inspect for structural damage.	Watertight integrity or operational capability is impaired.
2	Before	0.5	H-BITT	Inspect H-bitt for secure mounting and damage.	Structural cracks in foundation or damage to vents.
3	Before	0.5	BULL NOSE	Inspect bull nose for secure mounting, and that there are no sharp edges present that could chaff line.	Structural cracks in foundation.
4	Before	0.1	SHIP'S BELL	Inspect for secure mounting and obvious damage and ensure that the clapper is installed.	
5	Before	0.2	PELICAN HOOK	Visually inspect pelican hook. Look for obvious damage (e.g., cracks or broken parts).	Pelican hook is not operational.



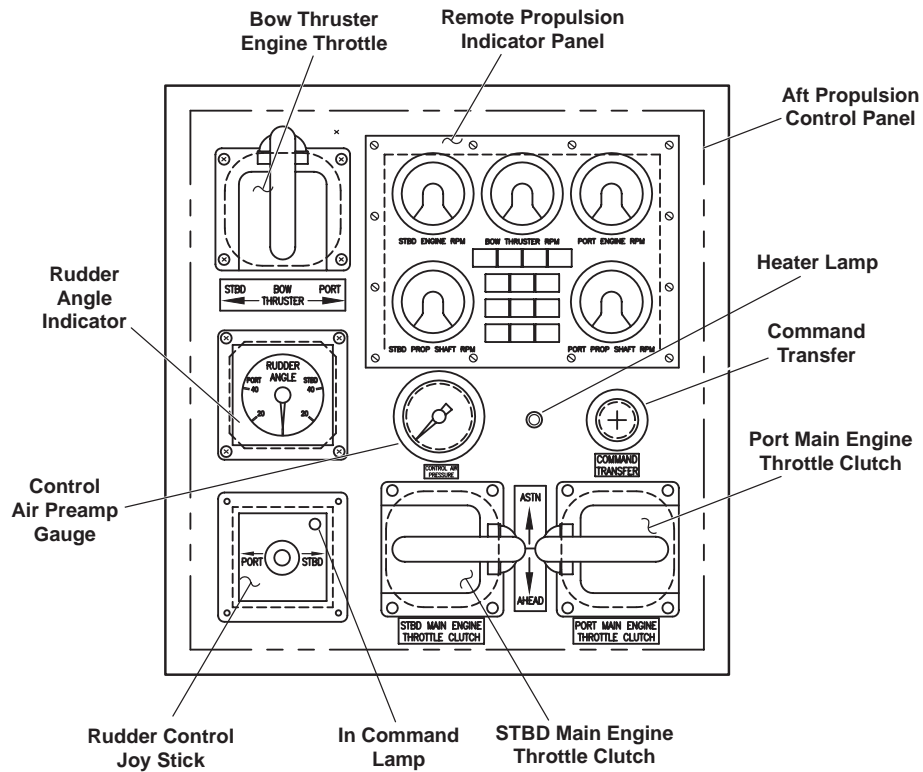
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.5	FLOODLIGHTS	Inspect for secure mounting and proper operation. <div> </div>	
7	Before	0.2	AFT CONTROL STATION	Inspect control station for cleanliness; clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that panel cover is tight. Ensure that throttle, command transfer, and non- follow up controls operate smoothly and do not bind. <div> </div>	Any critical control or meter unserviceable.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	0.2	Rudder Angle Indicator	a. Ensure that dimmer is able to adjust intensity of lights.  b. Needle moves in the direction of joystick.	If needle does not track with joystick.
9	Before	0.2	Remote Propulsion Indicator Panel	Press and hold LAMP TEST button. All lights will light. Adjust intensity of lights using DIMMER control.	

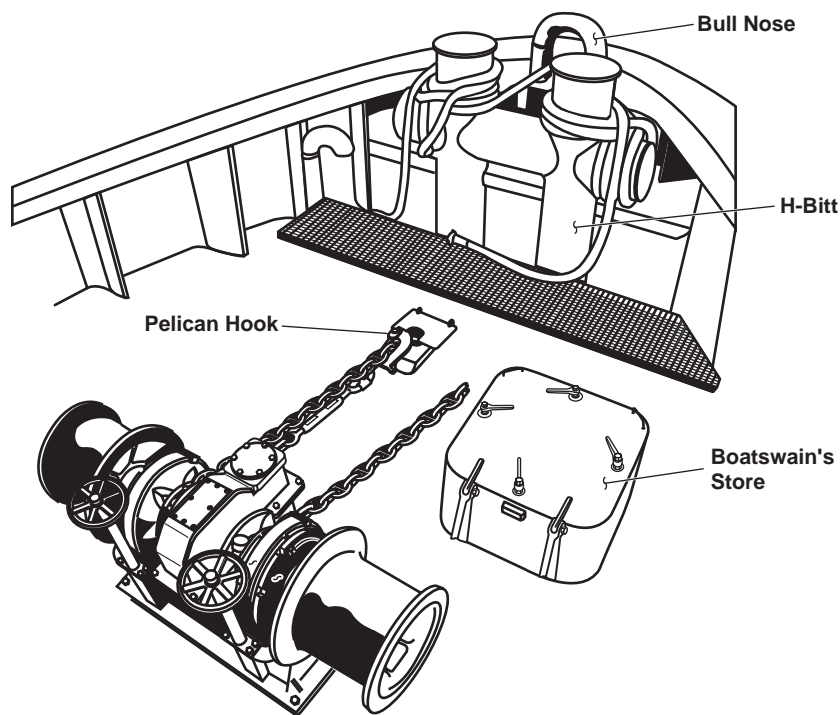


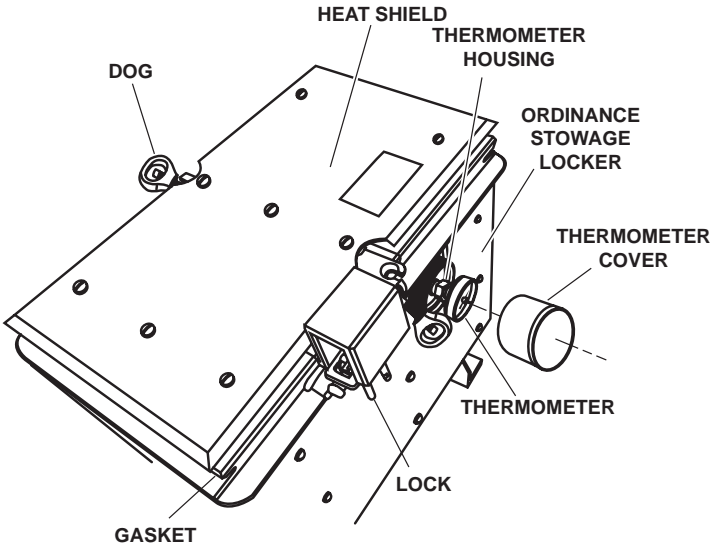
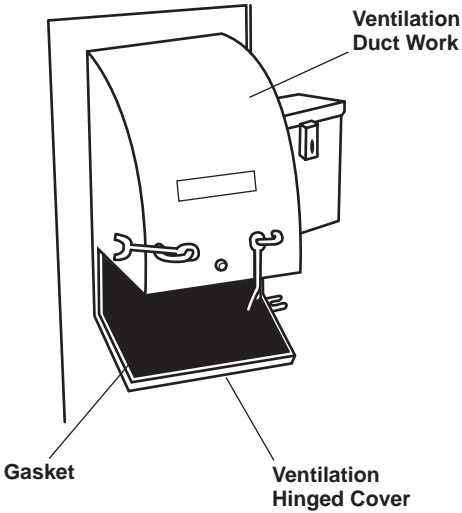
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Before	0.2	GUN MOUNTS	Inspect gun mounts for wear and damage.  	Gun mounts unserviceable.
11	During	0.5	FLOODLIGHTS	Inspect for secure mounting and proper operation.  	

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	During	0.2	AFT CONTROL STATION  Rudder Angle Indicator	a. Ensure that dimmer is able to adjust intensity of lights.  b. Needle moves in the direction of joystick.	If needle does not track with joystick.
13	During	0.2	Control Station	Observe lights and gauges to ensure proper operation.	

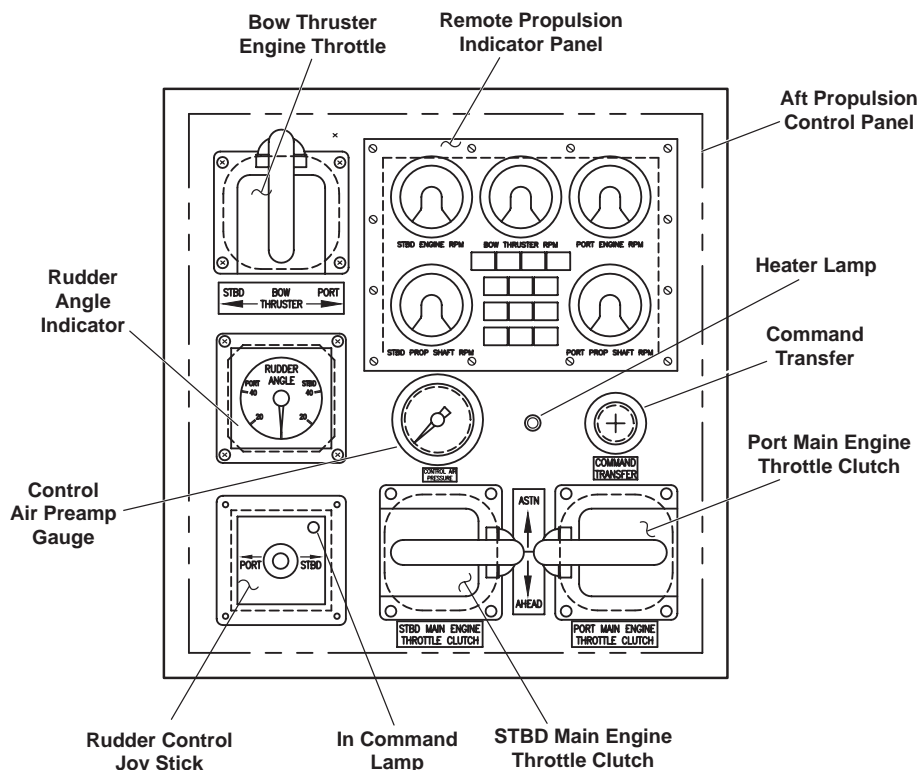


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	During	0.2	PELICAN HOOK	Visually inspect pelican hook. Look for obvious damage (e.g., cracks or broken parts).	Pelican hook is not operational.
15	After	0.2	PELICAN HOOK	Visually inspect pelican hook. Look for obvious damage (e.g., cracks or broken parts).	Pelican hook is not operational.
16	Weekly	0.3	EXTERNAL STRUCTURES	Inspect for structural damage.	Watertight integrity or operational capability is impaired.



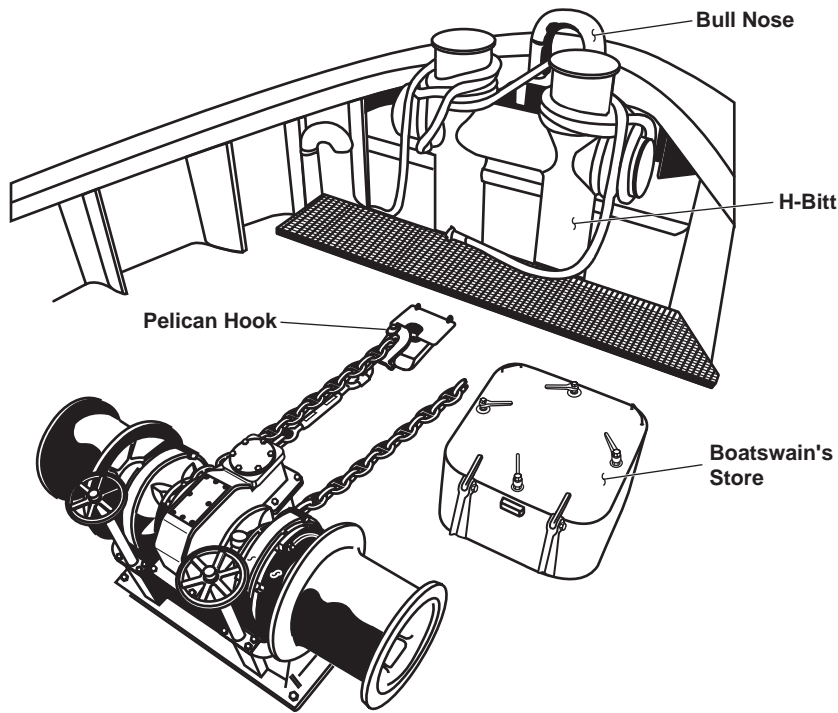
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Weekly	0.2	AMMO LOCKER	Visually inspect locker for damage or missing parts.  	
18	Monthly	0.5	VENT COVER GASKETS	Check that the gaskets are clean, serviceable, and seal properly.  	

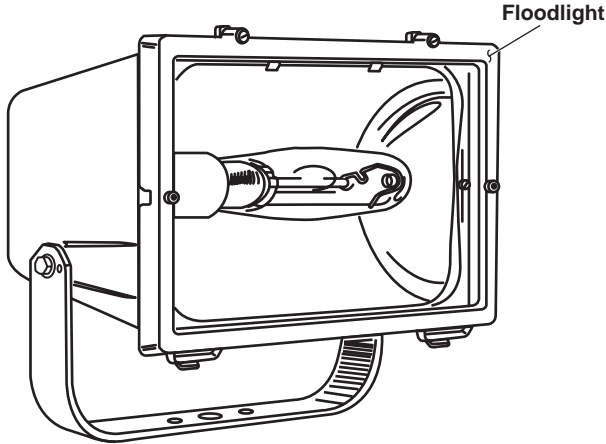
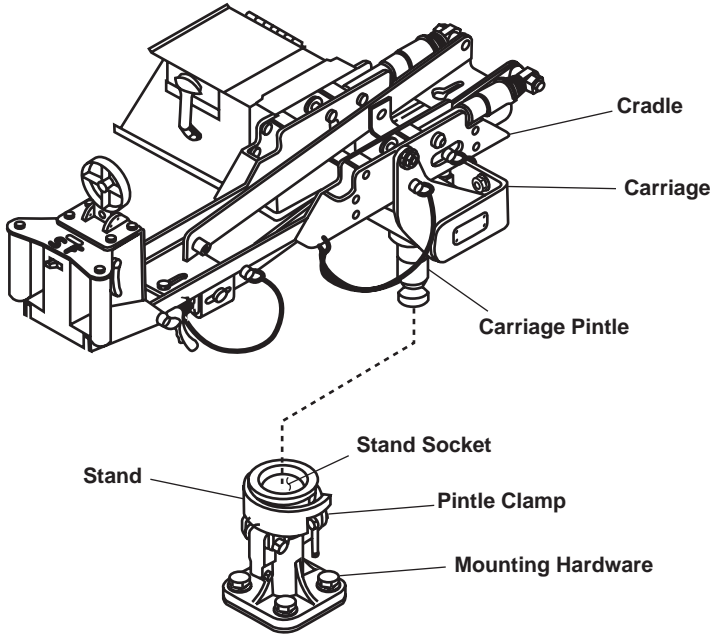
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Weekly	0.2	AFT CONTROL STATION	Inspect control station for cleanliness; clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that panel cover is tight. Ensure that throttle, command transfer, and non- follow up controls operate smoothly and do not bind.	Any critical control or meter unserviceable.
20	Weekly	0.4	Rudder Angle Indicator	a. Ensure dimmer is able to adjust intensity of lights.  b. Needle moves in the direction of joystick.	Needle does not track with joystick.
21	Weekly	0.2	Control Station	Observe lights and gauges to ensure proper operation.	





ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
22	Monthly	0.2	DOUBLE BITTS Forward	Inspect the forward double bitt for secure mounting and damage.	Structural cracks in the foundation or damage.
23	Monthly	0.2	Aft	Inspect the aft double bitt for secure mounting and damage.	Structural cracks in foundation or damage.
24	Monthly	0.1	BOATSWAIN'S STORE	Visually inspect hatch for damage or missing parts, and check that gasket is clean and serviceable.	
25	Monthly	0.5	H-BITT	Inspect H-bitt for secure mounting and damage.	Structural cracks in foundation or damage to vents.
26	Monthly	.05	BULL NOSE	Inspect bull nose for secure mounting, and that there are no sharp edges present that could chaff line.	Structural cracks in foundation.



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
27	Monthly	0.1	SHIP'S BELL	Inspect for secure mounting and obvious damage, and ensure that clapper is installed.	
28	Monthly	0.5	FLOODLIGHTS	Inspect for secure mounting and proper operation.	
					
29	Monthly	0.2	GUN MOUNTS	Inspect gun mounts for wear and damage.	Gun mounts unserviceable.
					

END OF WORK PACKAGE

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
01 LEVEL STATEROOMS AND SANITARY SPACES**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	1.0	Staterooms	Secure all items.	Fails to operate.
2	Before	0.2	Sanitary Spaces Exhaust Fan	Grease the fan with general purpose grease.	
3	During	0.1	Sanitary Spaces Exhaust Fan	Observe fan for unusual noise or vibration.	

**Table 2. Lubrication**

Item Lubricated	Lubricant	Military Specification
Sanitary Spaces Exhaust Fans	Grease, General Purpose	MIL-G-18709

END OF WORK PACKAGE





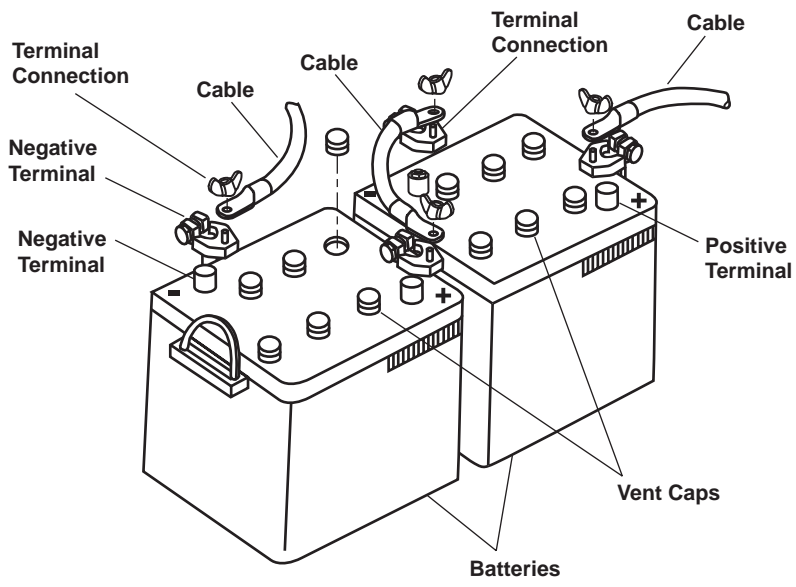
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
01 LEVEL FAN ROOMS**

**Table 1. Preventive Maintenance Checks and Services Including Lubrication**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	REHEATER	Inspect unit for obvious damage.	Unit damaged or missing or broken switches.
2	Before	0.2	FAN COIL UNIT	Grease fan and motor with general purpose grease. Apply 1-2 shots per fitting to each of the four grease fittings. Observe the general condition of the unit.	Fails to operate.
3	During	0.2	FAN COIL UNIT	Observe unit for unusual noises or excessive vibration.	Fails to operate.

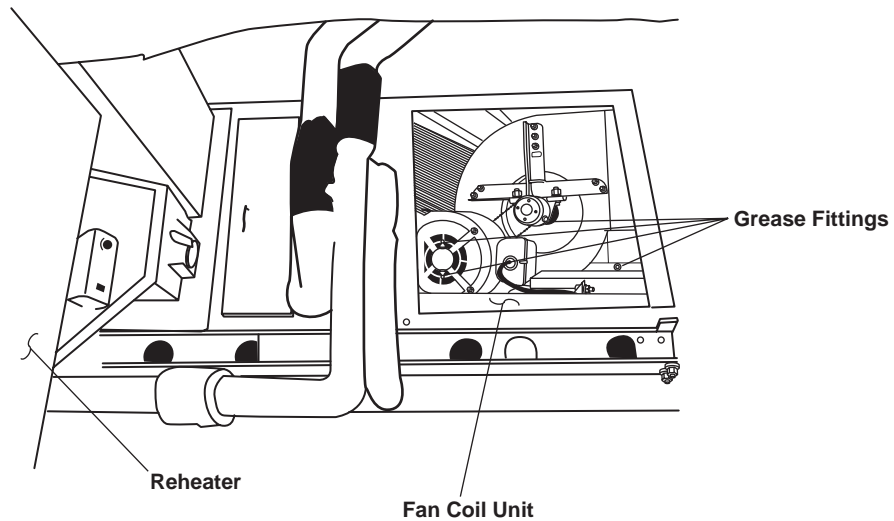
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Weekly	1.0	C4I Batteries	<div style="text-align: center; border: 1px solid black; padding: 5px; margin-bottom: 10px;"><b>WARNING</b></div> <div style="display: flex; justify-content: center; gap: 20px;">   </div> <p>Avoid flame, spark, and other ignition sources when observing battery electrolyte levels. Batteries give off fumes that can explode. Electrolyte is an acid and can cause chemical burns and other injuries if it contacts skin and eyes. Wear approved goggles and a chemical protective apron. Failure to comply can result in serious injury or death.</p> <p>Inspect battery terminals, connections, cables and vent caps for cleanliness and tightness. If terminals, connections, or cables are loose or corroded, notify unit maintenance.</p>	



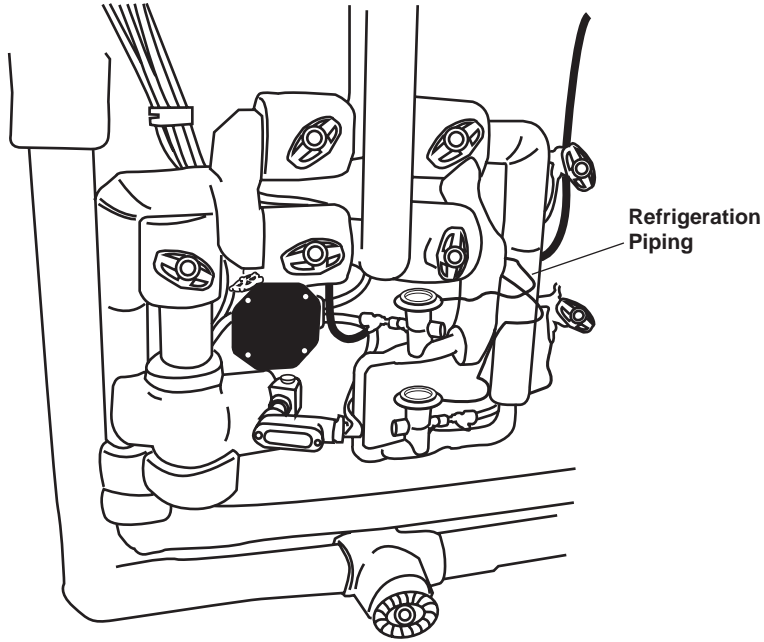
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Monthly	0.2	REHEATER	Inspect unit for obvious damage.	Unit damaged or missing or broken switches.
6	Monthly	0.2	FAN COIL UNIT	Observe unit for unusual noises or excessive vibration.	Fails to operate.
7	Monthly	0.2	FAN COIL UNIT	Grease fan and motor with general purpose grease. Apply 1-2 shots per fitting to each of the four grease fittings.	
8	Monthly	0.2	PREHEATER	Inspect unit for obvious damage.	Fails to operate.





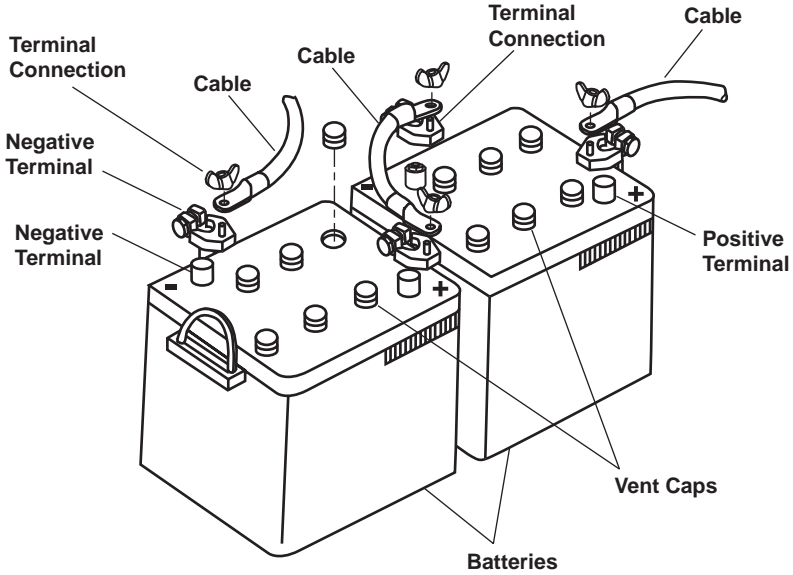
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Monthly	0.2	REFRIGERATION PIPING	Inspect refrigeration piping for leaks.	





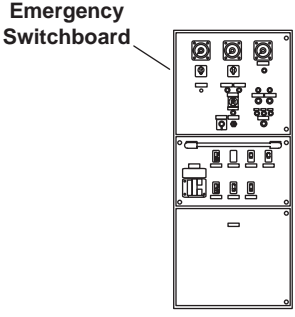
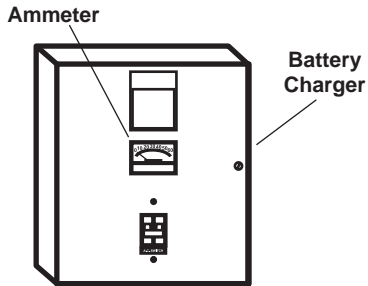
**Table 1. Preventive Maintenance Checks and Services Including Lubrication (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Monthly	1.0	C4I Batteries	<div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <div style="display: flex; justify-content: space-around; margin: 10px 0;">   </div> <p>Avoid flame, spark, and other ignition sources when observing battery electrolyte levels. Batteries give off fumes that can explode. Electrolyte is an acid and can cause chemical burns and other injuries if it contacts skin and eyes. Wear approved goggles and a chemical protective apron. Failure to comply can result in serious injury or death.</p> <p>Check electrolyte level. If the electrolyte level is low, add distilled water to bring the electrolyte to the proper level.</p> </div> <div style="text-align: center; margin-top: 20px;">  <p>The diagram shows a perspective view of a battery bank. It consists of two main battery units. Each unit has several cylindrical vent caps on top. On the left side of the first unit, there is a 'Negative Terminal' with a 'Terminal Connection' and a 'Cable' attached. On the right side of the second unit, there is a 'Positive Terminal' with a 'Terminal Connection' and a 'Cable' attached. The entire assembly is labeled 'Batteries' at the bottom. 'Vent Caps' are also labeled at the bottom right.</p> </div>	

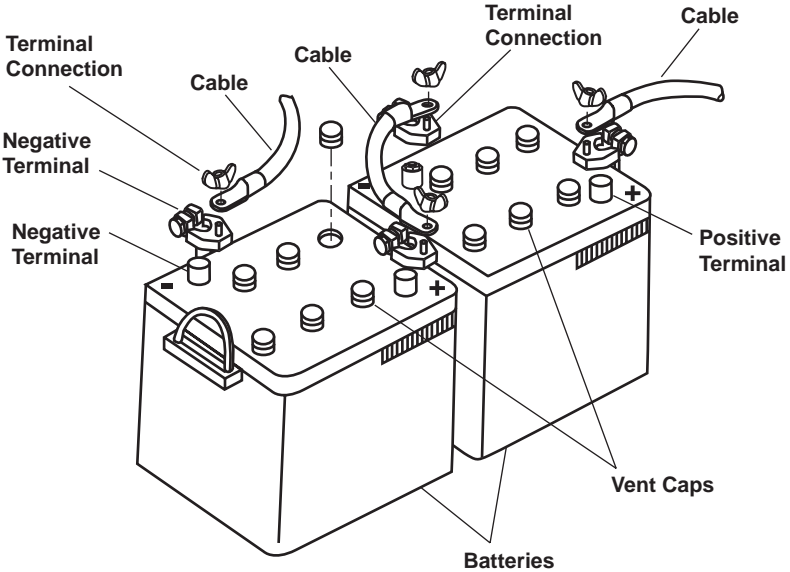
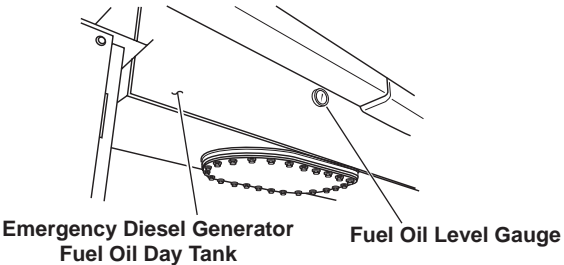
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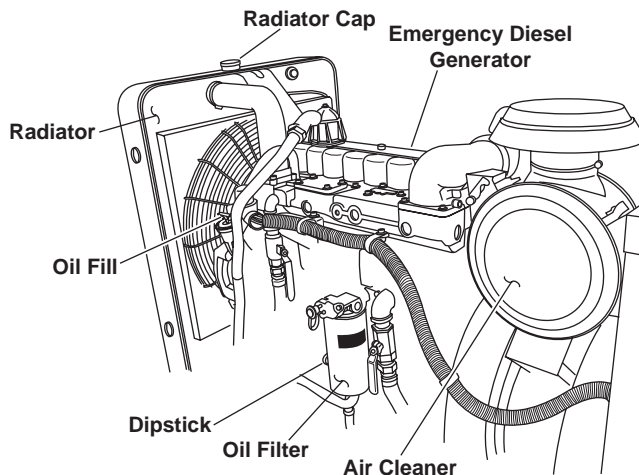
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
EMERGENCY DIESEL GENERATOR ROOM**

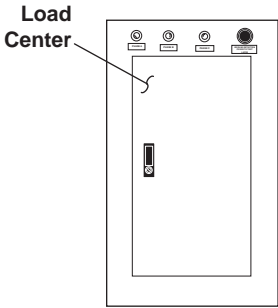
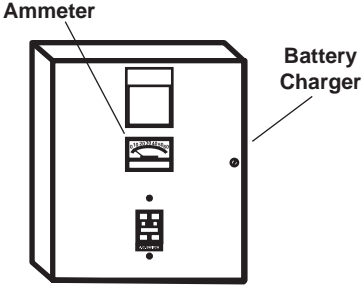
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.1	EMERGENCY SWITCHBOARD	<p>Visually inspect the exterior of the switchboard for damaged or missing circuit breakers, meters, controls, and lights.</p> <div style="text-align: center;">  </div>	Any critical controls or meters unserviceable.
2	Before	0.2	BATTERY CHARGER	<p><b>NOTE</b> A high reading indicates the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>Check battery charger for proper connections to battery. Ammeter should read near 0 for trickle charge. If reading is above 3 AMPS, refer to unit maintenance.</p> <div style="text-align: center;">  </div>	Charger does not operate properly.

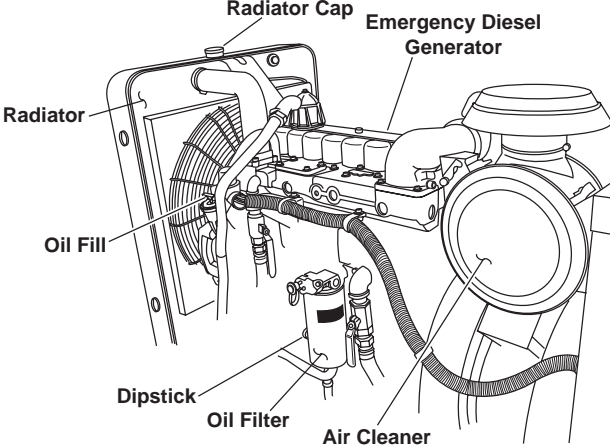
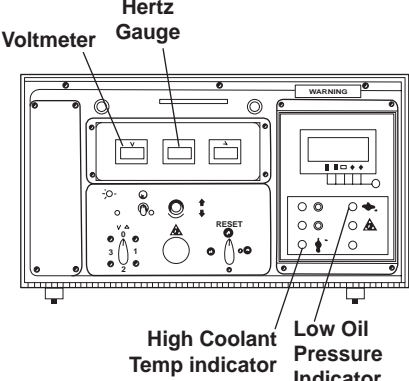


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	0.2	Electrolyte	<p>Check electrolyte level and check specific gravity of electrolyte with a hydrometer. Specific gravity should be 1.265.</p> 	If hydrometer readings are not satisfactory.
7	Before	0.1	FUEL OIL DAY TANK	<p>Visually inspect tank for leaks. Check fuel oil level using sight glass.</p> 	Any leaks.

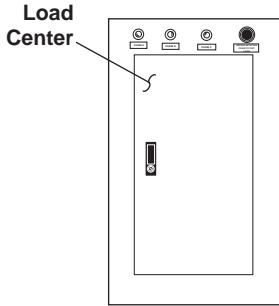

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	1.0	ENGINE ACCESSORIES AND CONNECTIONS	Inspect engine, fuel injection pumps, and cooling pumps for loose or damaged connections or mountings. Inspect fluid lines and joints for leaks. Inspect engine for loose, broken, or missing belts, fittings, or guards.	Any leaks or damaged connectors likely to leak. Unserviceable or missing belts or guards.
9	Before	0.2	Engine Crankcase Oil	Check oil level at dipstick. Level should be between ADD and FULL marks on ENGINE STOPPED side of dipstick. Add oil (NSN 9150-00-135-2634) as required.	
10	Before	0.2	Cooling System	Check radiator coolant level.	
11	Before	0.1	RADIATOR INTAKE AND EXHAUST LOUVERS	Ensure that vent is not obstructed and screen is in place and serviceable.	Vent is obstructed or screen unserviceable.

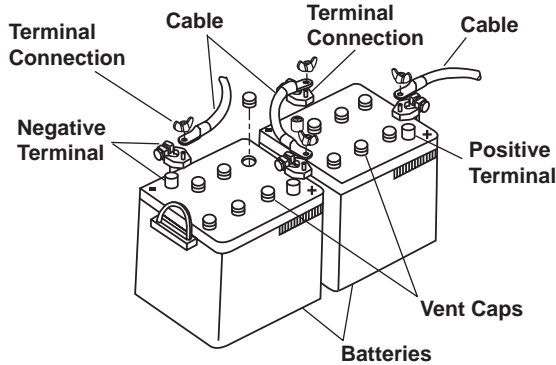


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Before	0.2	LOAD CENTER	<p>Inspect for secure mounting and obvious damage.</p>  <p>The diagram shows a rectangular panel labeled 'Load Center'. At the top, there are four circular indicators. Below them is a switch with a curved handle. In the center of the panel is a vertical rectangular slot, possibly for a fuse or indicator.</p>	Mounting not secure or obvious damage.
13	During	0.2	BATTERY CHARGER	<p><b>NOTE</b> A high reading indicates the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>Check battery charger for proper connections to battery. Ammeter should read near 0 for trickle charge. If reading is above 3 AMPS, refer to unit maintenance.</p>  <p>The diagram shows a rectangular unit labeled 'Battery Charger'. On the front panel, there is a square window labeled 'Ammeter'. Below the window is a dial with a needle. At the bottom of the panel, there are several electrical terminals and a small rectangular component.</p>	Charger does not operate properly.

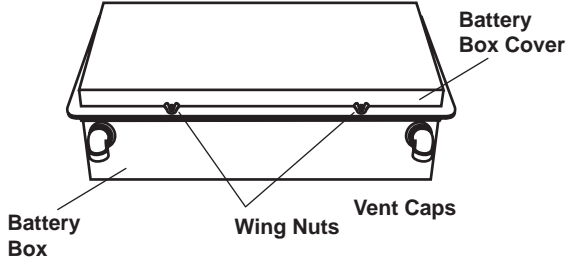
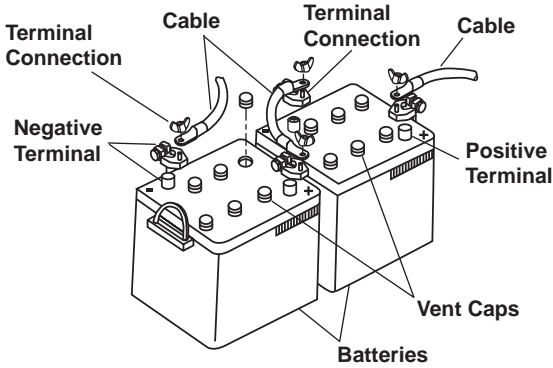

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	During	0.2	ENGINE ACCESSORIES AND CONNECTIONS  Engine Crankcase Oil	<p>Check oil level at dipstick. Level should be between ADD and FULL marks on ENGINE STOPPED side of dipstick. Add oil (NSN 9150-00-135-2634) as required.</p> 	
15	During	0.2	EDG ENGINE CONTROL MONITOR (ECM) DISPLAY  Low Oil Pressure Indicator	<p>a. Ensure that the Hertz gauge reads 60. b. Ensure that the voltmeter reads 460.</p> <p>Ensure that the low oil pressure indicator is not illuminated.</p>	Low oil pressure illuminated.
16	During	0.2	High Coolant Temp Indicator	Check that the high coolant temp indicator is not illuminated.	High coolant temp indicator is illuminated.
17	During	0.2	Tachometer	<p>Engine speed (1800 r/min).</p> 	

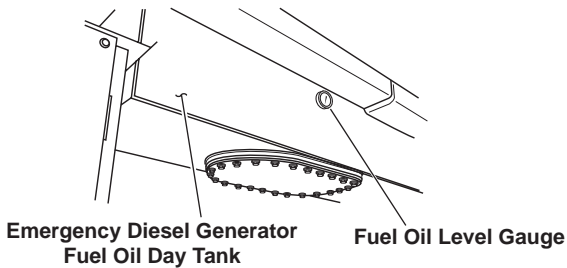
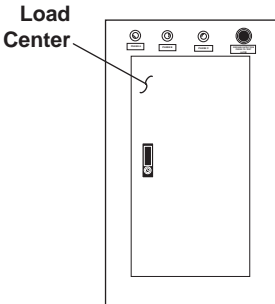
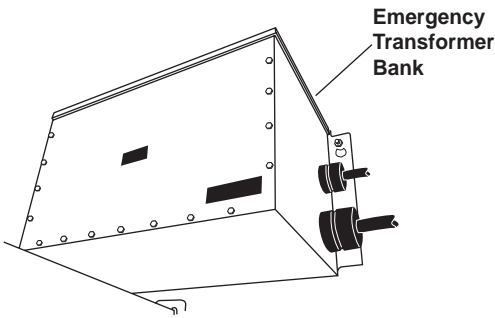


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
18	During	0.2	LOAD CENTER  EDG STARTING BATTERIES	<p>Ensure that indicator lights, except GND FAULT, are lit.</p>  <p><b>WARNING</b></p>  <p>Avoid flame, spark, and other ignition sources when observing battery electrolyte levels. Batteries give off fumes that can explode. Electrolyte is an acid and can cause chemical burns and other injuries if it contacts skin and eyes. Wear approved goggles and a chemical protective apron. Failure to comply can result in serious injury or death.</p> <p><b>NOTE</b> Top cover of battery box must be removed to check batteries.</p>	One or more indicator lights not lit.
19	After	0.2	Batteries, Terminals, and Connections	Inspect batteries, terminals, connections, cables, and vent caps for cleanliness and tightness.	Any damage or failed connections.
20	After	0.2	Terminal Connections	Clean or tighten terminal connections as required. Clean battery as required using a paste of clear water and baking soda. Rinse with clear water when finished.	
21	After	0.2	Electrolyte	Check electrolyte level and check specific gravity of electrolyte with hydrometer. Specific gravity should be 1.265.	Hydrometer readings are not satisfactory.



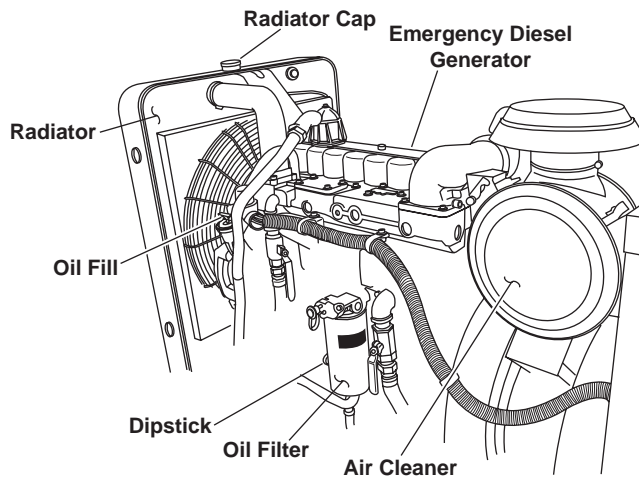
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
22	After	0.2	ENGINE ACCESSORIES AND CONNECTIONS  Engine Crankcase Oil	Check oil level at dipstick. Level should be between ADD and FULL marks on ENGINE STOPPED side of dipstick. Add oil (NSN 9150-00-135-2634) as required.	
23	Weekly	0.1	EMERGENCY SWITCHBOARD	Visually inspect the exterior of the switchboard for damaged or missing circuit breakers, meters, controls, and lights.	Any critical controls or meters unserviceable.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
24	Weekly	0.4	BATTERY BOX	<p>Visually inspect the battery box for obvious damage, and ensure that the vent is not obstructed.</p>  <p>EDG STARTING BATTERIES</p>  <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div>  <p>Avoid flame, spark, and other ignition sources when observing battery electrolyte levels. Batteries give off fumes that can explode. Electrolyte is an acid and can cause chemical burns and other injuries if it contacts skin and eyes. Wear approved goggles and a chemical protective apron. Failure to comply can result in serious injury or death.</p> <p style="text-align: center;">NOTE</p> <p>Top cover of battery box must be removed to check batteries.</p>	Battery box is not serviceable.
25	Weekly	0.2	Batteries, Terminals, and Connections	Inspect batteries, terminals, connections, cables, and vent caps for cleanliness and tightness.	Any damage or failed connections.
26	Weekly	0.2	Terminal Connections	Clean or tighten terminal connections as required. Clean battery as required using a paste of clear water and baking soda. Rinse with clear water when finished.	

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
27	Weekly	0.1	FUEL OIL DAY TANK	Visually inspect tank for leaks. Check fuel oil level using sight glass.  	Any leaks.
28	Weekly	0.2	Cooling System	Check radiator coolant level.	
29	Weekly	0.2	LOAD CENTER	Inspect for secure mounting and obvious damage.  	Mounting not secure or obvious damage.
30	Weekly	0.2	TRANSFORMERS	Inspect for secure mounting and obvious damage.  	Mounting not secure or obvious damage.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
31	Monthly	0.2	BATTERY CHARGER	<p style="text-align: center;">NOTE</p> <p>A high reading indicates the batteries are weak and are being recharged or that one or more batteries are unserviceable.</p> <p>Check battery charger for proper connections to battery. Ammeter should read near 0 for trickle charge. If reading is above 3 AMPS, refer to unit maintenance.</p> <div style="text-align: center;"> <p>A rectangular box representing a battery charger. On the top surface, there is a square window labeled 'Ammeter'. Below the window is a horizontal slot, likely for a fuse or a terminal. On the right side of the box, there is a vertical slot labeled 'Battery Charger'.</p> </div>	Charger does not operate properly.
			BATTERIES	<div style="text-align: center;"> <p><b>WARNING</b></p> </div> <div style="text-align: center;"> <p>Two square icons side-by-side. The left icon shows a silhouette of a human head with a lightning bolt striking it, representing a spark or explosion. The right icon shows a stylized flame or explosion.</p> </div> <p>Avoid flame, spark, and other ignition sources when observing battery electrolyte levels. Batteries give off fumes that can explode. Electrolyte is an acid and can cause chemical burns and other injuries if it contacts skin and eyes. Wear approved goggles and a chemical protective apron. Failure to comply can result in serious injury or death.</p>	
<div style="text-align: center;"> <p>A perspective view of a battery bank. The top surface has several terminals. Two are labeled 'Negative Terminal' and 'Positive Terminal'. Cables are connected to these terminals, with labels 'Terminal Connection' and 'Cable'. Small caps on the top surface are labeled 'Vent Caps'. The entire unit is labeled 'Batteries'.</p> </div>				<p>32</p> <p>Monthly</p> <p>0.2</p> <p>Electrolyte</p> <p>Check electrolyte level and check specific gravity of electrolyte with hydrometer. Specific gravity should be 1.265.</p>	<p>If hydrometer readings are not satisfactory.</p>

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
33	Monthly	0.1	NATURAL VENT LOUVER (PORT)	Ensure that vent is not obstructed and screen is in place and serviceable.	Vent is obstructed.
34	Monthly	0.1	RADIATOR INTAKE AND EXHAUST LOUVERS	Ensure that vent is not obstructed and screen is in place and serviceable.	Vent is obstructed or screen unserviceable.
35	Annually	0.2	Cooling System	Check radiator coolant level.	



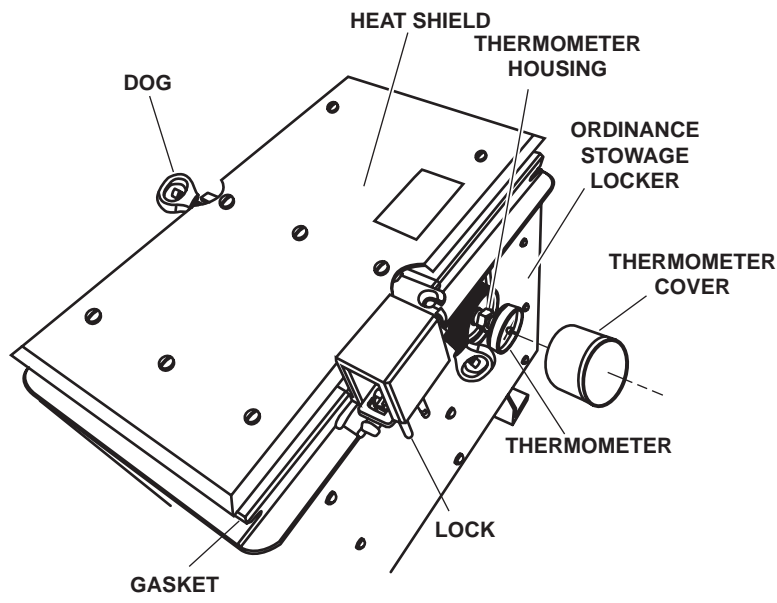
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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
02 LEVEL WEATHER DECKS**

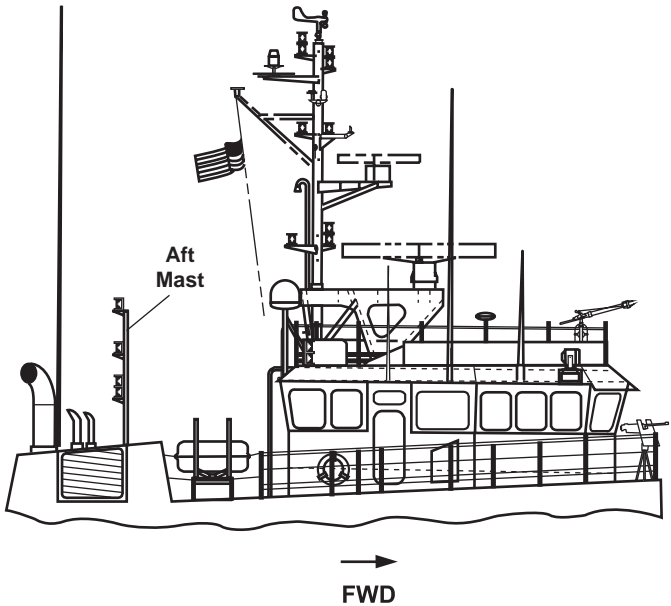
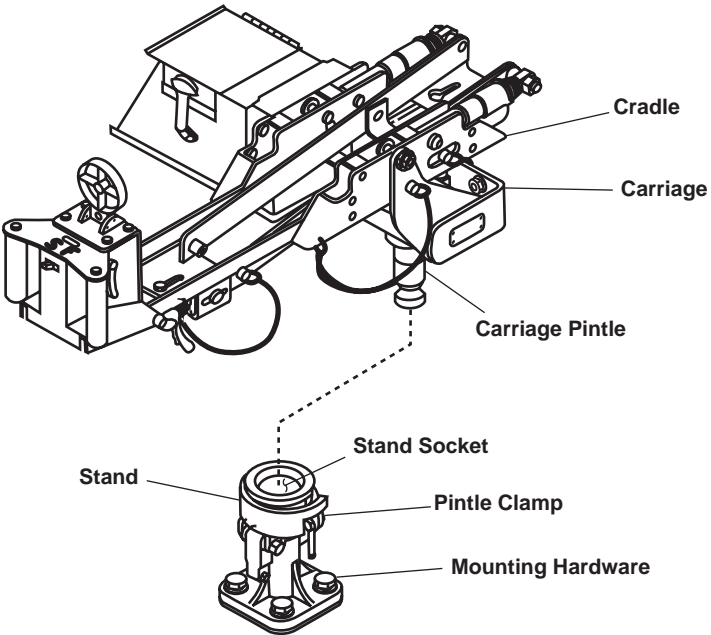
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.1	LIFE RAFT	<p>Verify that certification has not expired.</p> <div style="border: 2px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Immediately report noted defects to your supervisor. Your life and that of the crew may depend on this equipment working in an emergency.</b></p> <p><b>Always use caution when inspecting the cylinder lanyard. Accidentally pulling this cable will cause the life raft to inflate, which could injure or kill personnel.</b></p> <p style="text-align: center;">NOTE</p> <p>Servicing must be done IAW life raft servicing schedule at a USCG approved facility. Crew servicing is limited to visual inspections only.</p>	Certification has expired.
2	Before	0.2	Container and Securing Hardware	Visually inspect container for dents or cracks which could leak water. Check cables and lanyards for chafing, cuts, or loose connectors.	Damage or defect of container or securing hardware.
3	Before	0.1	Hydrostatic Release	Check that the hydrostatic release is securely attached and undamaged.	Hydrostatic release damaged or not securely attached.

The diagram illustrates a containerized MK-VII life raft. It consists of a cylindrical fiberglass container mounted on a wooden cradle. The container is secured with two packing bands and tied down with straps. A gasket is visible at the top of the container. A hydrostatic release mechanism is attached to the bottom of the container, connected to a weak link and an operating cord. Labels with leader lines identify the following parts: TIEDOWN STRAPS, PACKING BAND (two locations), FIBERGLASS CONTAINER, GASKET, CRADLE, WEAK LINK, OPERATING CORD, and HYDROSTATIC RELEASE.

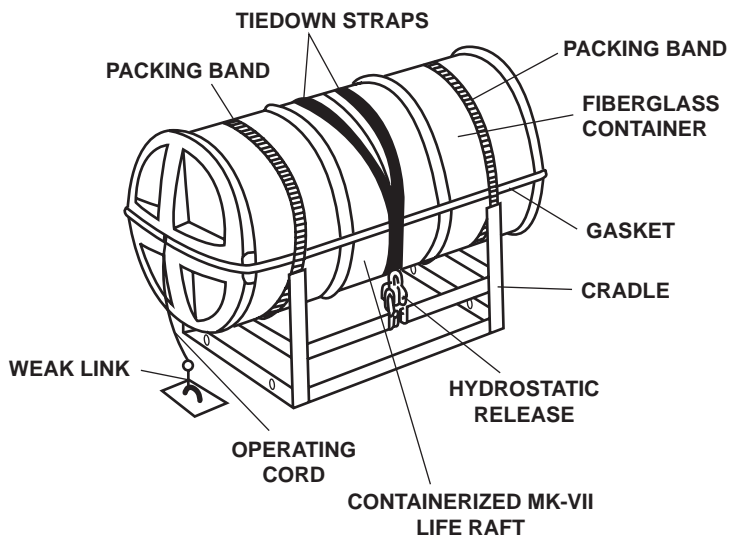
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before	0.2	<p>VARIOUS ORDNANCE STOWAGE LOCKERS</p> <p>Pyrotechnic Signal Locker</p>	<p>NOTE</p> <p>When lockers contain ordnance, ensure that climate is monitored in accordance with ammunition handling instructions.</p> <p>Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.</p>	
5	Before	0.2	Ammo Locker	<p>Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.</p>	
6	Before	0.2	Grenade MK3A1 Locker	<p>Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.</p>	
7	Before	0.2	Grenade Fuse M206A1 Locker	<p>Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.</p>	



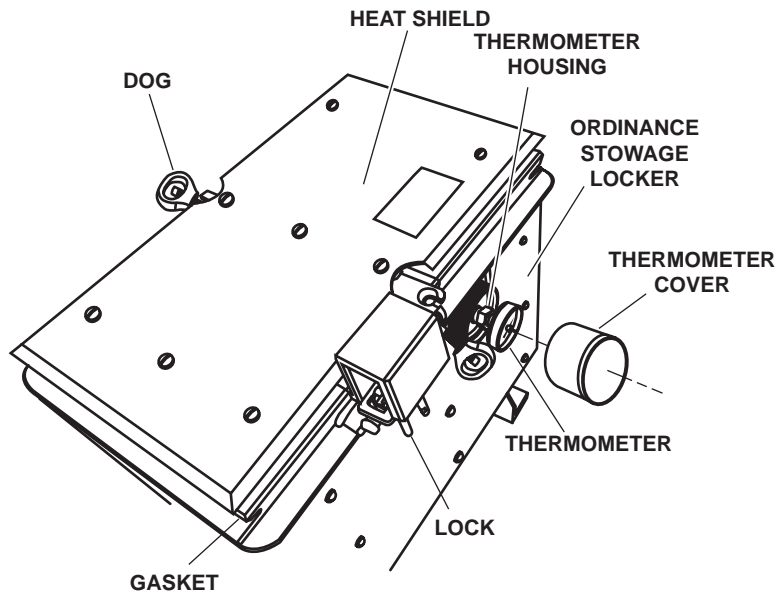


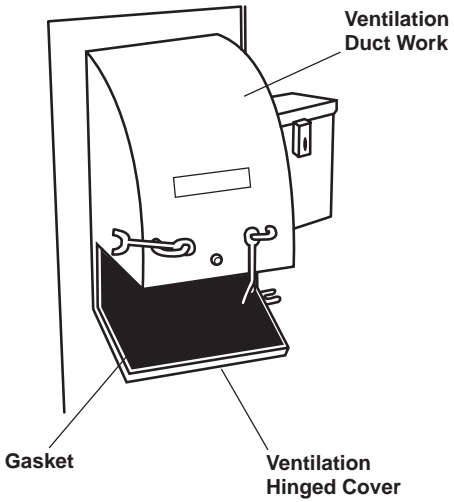
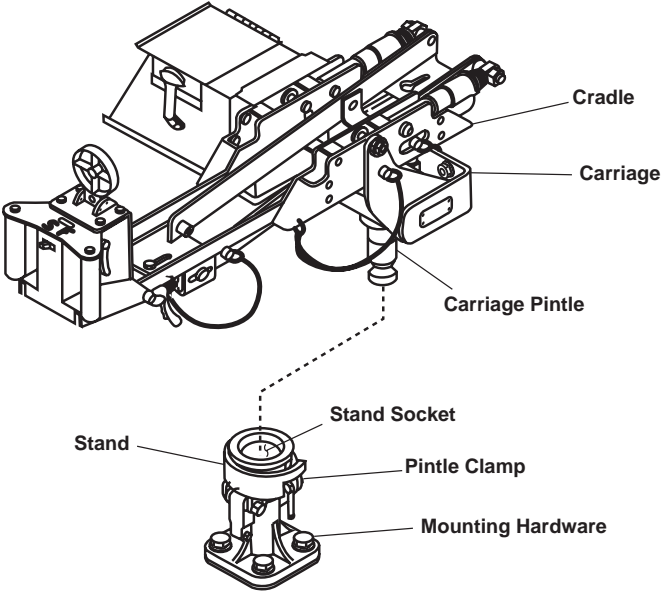
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	0.5	AFT MAST	<p>Inspect mast foundation for damage or cracks. Inspect navigation lights for mechanical damage.</p> 	Structural cracks present or navigation lights damaged.
9	Before	0.2	GUN MOUNTS	<p>Inspect gun mounts for wear and damage.</p> 	Gun mounts unserviceable.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Weekly	0.1	LIFE RAFT	<p>Verify that certification has not expired.</p> <div style="border: 2px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Immediately report noted defects to your supervisor. Your life and that of the crew may depend on this equipment working in an emergency.</b></p> <p><b>Always use caution when inspecting the cylinder lanyard. Accidentally pulling this cable will cause the life raft to inflate, which could injure or kill personnel.</b></p> <p style="text-align: center;">NOTE</p> <p>Servicing must be done IAW life raft servicing schedule at a USCG approved facility. Crew servicing is limited to visual inspections only.</p>	Certification has expired.
11	Weekly	0.2	Container and Securing Hardware	Visually inspect container for dents or cracks which could leak water. Check cables and lanyards for chafing, cuts, or loose connectors.	Damage or defect of container or securing hardware.
12	Weekly	0.1	Hydrostatic Release	Check that the hydrostatic release is securely attached and undamaged.	Hydrostatic release damaged or not securely attached.



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p>VARIOUS ORDNANCE STOWAGE LOCKERS</p>	<p>NOTE When lockers contain ordnance, ensure that climate is monitored in accordance with ammunition handling instructions.</p>	
13	Weekly	0.2	Pyrotechnic Signal Locker	Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.	
14	Weekly	0.2	Ammo Locker	Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.	
15	Weekly	0.2	Grenade MK3A1 Locker	Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.	
16	Weekly	0.2	Grenade Fuse M206A1 Locker	Visually inspect locker for damage or missing parts. Verify that thermometer is functional and within calibration periodicity.	



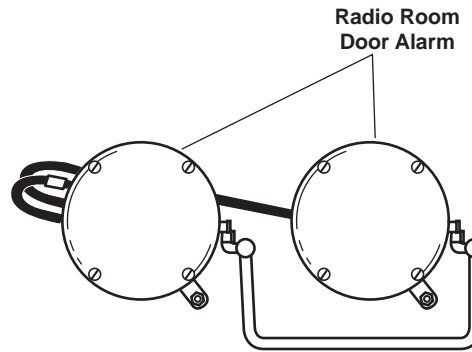
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Monthly	0.2	VENT COVER GASKETS	<p>Check that gaskets are clean and serviceable, and flapper closures are free and unobstructed.</p> 	Gaskets are in an unserviceable condition.
18	Monthly	0.2	GUN MOUNTS	<p>Inspect gun mounts for wear and damage.</p> 	Gun mounts unserviceable.

END OF WORK PACKAGE

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
RADIO ROOM**

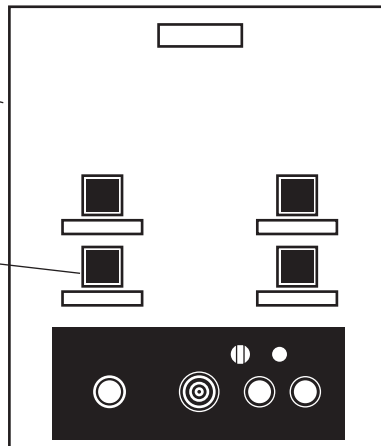
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	RADIO ROOM DOOR ALARM  Inspect	Visually inspect security alarm system for obvious damage, missing parts, and tampering.  <b>NOTE</b> Notify pilothouse that alarm is to be tested.	
2	Before	0.2	Test	Open door and verify that both the alarm buzzer and light are energized. Set rotary snap switch to OFF position and verify that both the alarm buzzer is silent and the light is not lit. Reset the alarm and secure the door.	



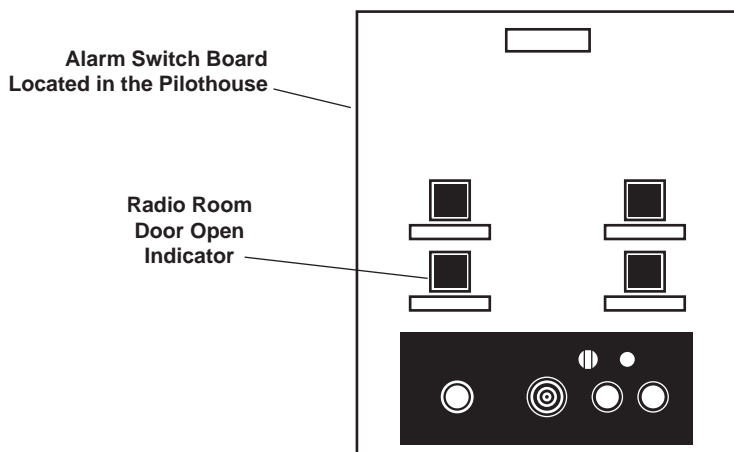
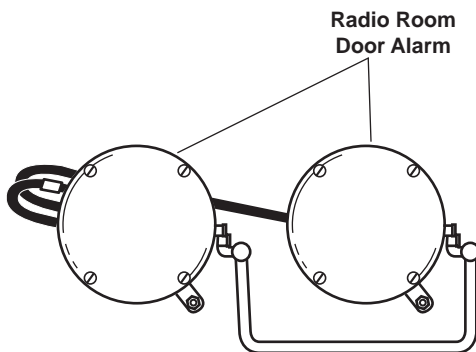
**Alarm Switch Board Located in the Pilothouse**

**Radio Room Door Open Indicator**



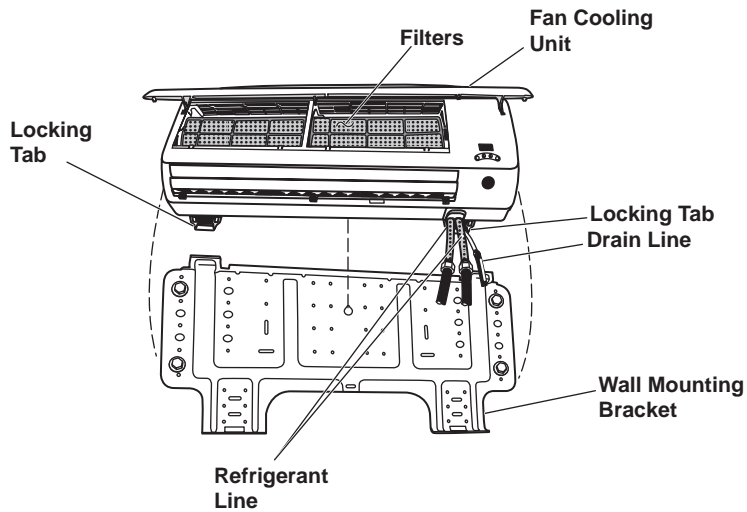
**Table 1. Operator Preventive Maintenance Checks and Services (PMCS) (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Monthly	0.2	Inspect	<p>Visually inspect security alarm system for obvious damage, missing parts, and tampering.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>Notify pilothouse that alarm is to be tested.</p>	
4	Monthly	0.2	Test	<p>Open door and verify that both the alarm buzzer and light are energized. Set rotary snap switch to OFF position and verify that both the alarm buzzer is silent and the light is not lit. Reset the alarm and secure the door.</p>	



**Table 1. Operator Preventive Maintenance Checks and Services (PMCS) (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Monthly	0.2	Radio Room Roof-top Air Conditioning Unit, Fan Unit	Inspect the fan unit to ensure the locking tabs are present and are locked into the wall mounting brackets.	Locking tabs are broken or missing.
6	Monthly	0.2	Radio Room Roof-top Air Conditioning Unit, Fan Unit, Air Filters	Inspect the air filters for blockage.	
7	Monthly	0.2	Radio Room Roof-top Air Conditioning Unit, Fan Unit, Drain	Inspect the drain to ensure that it allows water to drain from the fan unit.	Drain is clogged.



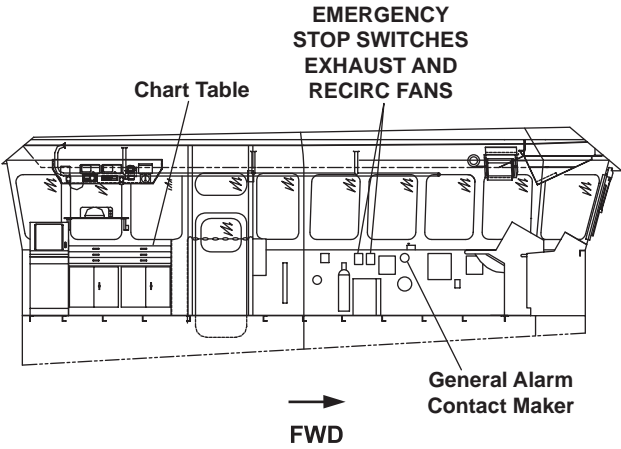
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Semi-Annually	0.2	Radio Room Rooftop Air Conditioning Unit, Remote	<p>Change batteries in the radio room rooftop air conditioning unit remote by removing the cover on the back of the radio room air conditioning unit remote. Replace the batteries with two 1.5 Vdc AAA alkaline batteries and install the cover.</p> <div style="text-align: center;"> <p>Radio Room Rooftop Air Conditioning Unit Remote Rear View</p> <p>Two 1.5Vdc AAA Alkaline Batteries</p> <p>Rear Cover</p> </div>	

END OF WORK PACKAGE



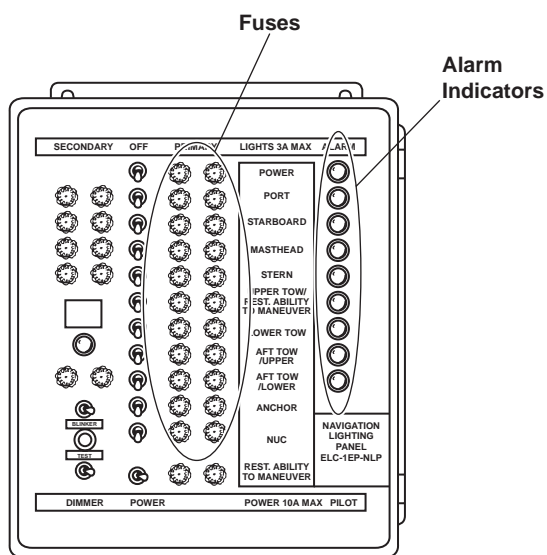
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
PILOTHOUSE**

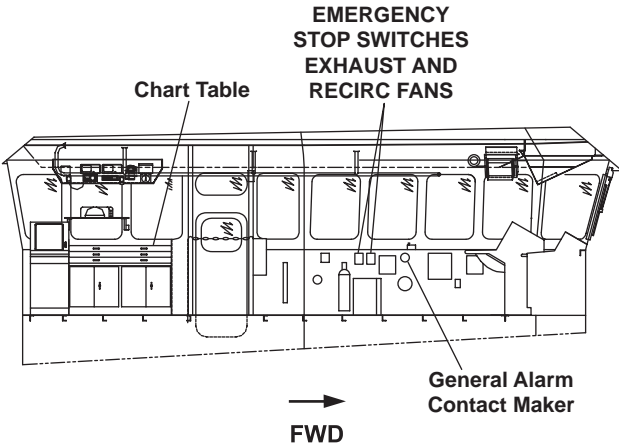
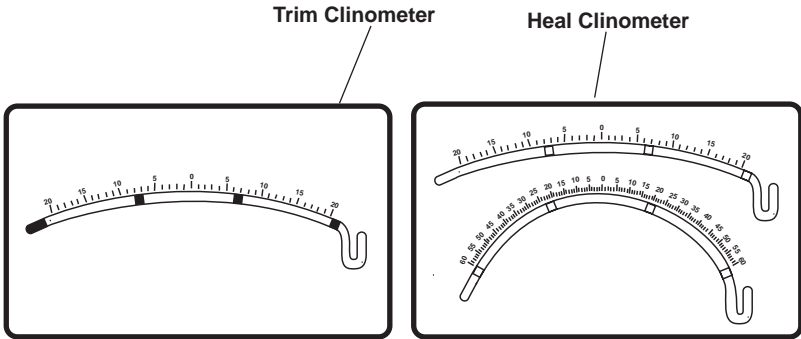
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.3	PILOTHOUSE	Inspect pilothouse for cleanliness and stowage.	
2	Before	0.1	CHART TABLE	Inspect table for secure mounting. Check that illumination control functions.	



The diagram shows a side view of the pilothouse interior. A 'Chart Table' is located at the front left. 'EMERGENCY STOP SWITCHES EXHAUST AND RECIRC FANS' are located along the top and rear walls. A 'General Alarm Contact Maker' is located on the lower right side. An arrow labeled 'FWD' points towards the front of the vessel.

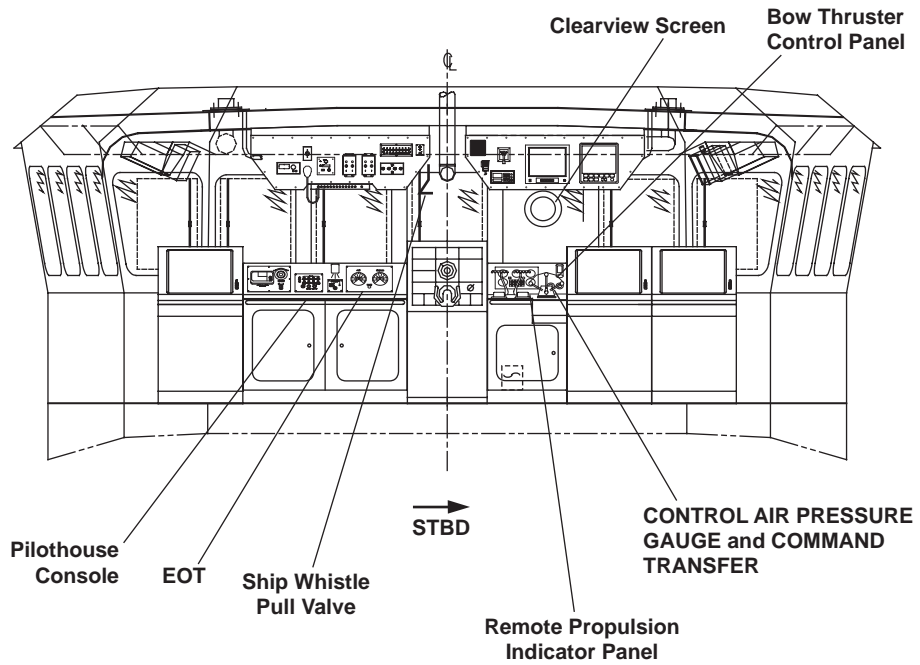
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.2	NAVIGATION LIGHTING PANEL Inspect	Visually inspect to ensure that all navigation lights operate properly when the respective light switches on the navigation lighting panel are in the primary and secondary position.	
4	Before	0.2	Operation	Check that all lights are operative, and/or circuits function normally.	
5	Before	0.2	Alarm	Remove fuse. Ensure that alarm sounds.	Alarm inoperative.

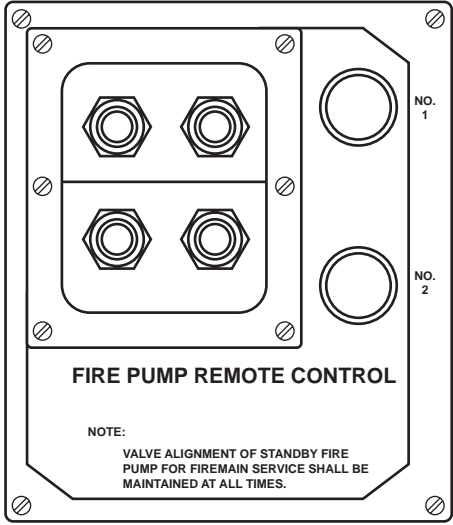



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before	1.0	GENERAL ALARM	<p>Sound the alarm, and ensure that all bells and lights operate in all compartments.</p>  <p style="text-align: center;">EMERGENCY STOP SWITCHES EXHAUST AND RECIRC FANS</p> <p style="text-align: center;">Chart Table</p> <p style="text-align: center;">FWD →</p> <p style="text-align: right;">General Alarm Contact Maker</p>	Any bell or light does not function.
7	Before	0.1	TRIM & HEEL CLINOMETERS	<p>Inspect for obvious damage and secure mounting.</p>  <p style="text-align: center;">Trim Clinometer                      Heel Clinometer</p>	

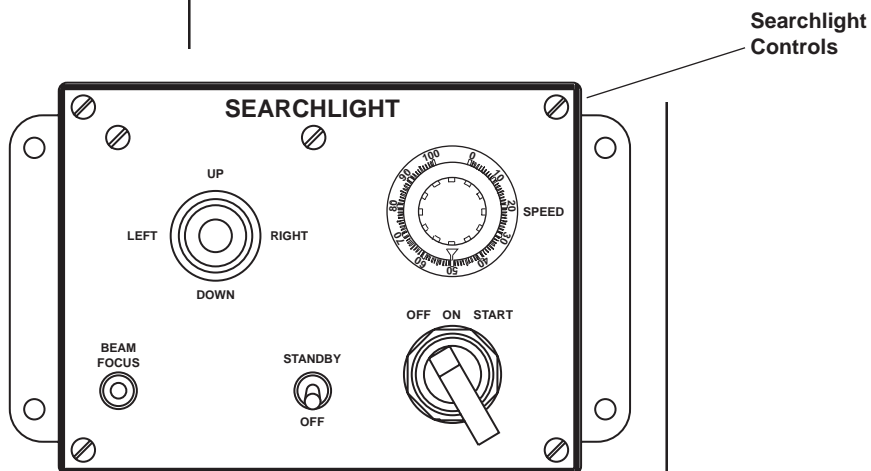
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8 9	Before Before	0.2 0.2	SHIP WHISTLE PULL VALVE  Inspect  Test	Visually inspect for damage.  Operate whistle. Check that the valve operates smoothly and closes when released.	Whistle does not operate.
10	Before	0.2	PILOTHOUSE ALARM PANEL	Visually inspect for obvious damage, press the PRESS TO TEST button, and verify that alarm indications are functional.	Obvious damage or alarms do not occur.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Before	1.0	PILOTHOUSE CONSOLE	Inspect console for cleanliness. Clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that throttle controls operate smoothly and do not bind.	Any critical control or indicator that is unserviceable.
12	Before	0.2	Engine Order Telegraph	Conduct test with the EOS to ensure communication. Move selector through each position ensuring corresponding indicator lights.	No communication with EOS.
13	Before	0.2	Remote Propulsion Indicator Panel	Press and hold LAMP TEST button. All lights should light. Adjust intensity of the lights using the DIMMER control.	

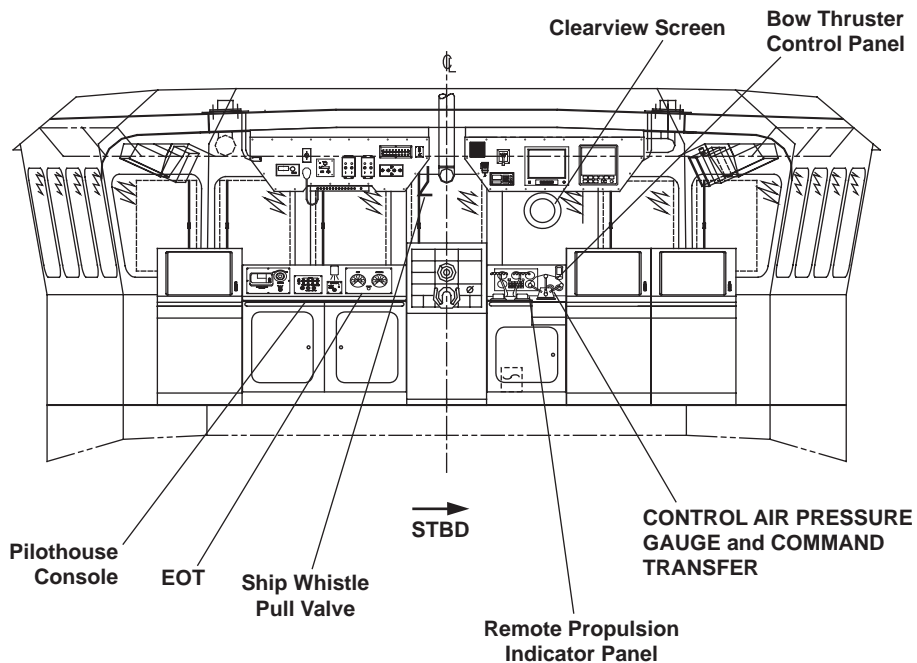


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Before	0.2	Fire Pump START/ STOP Panel	<p><b>⚠ CAUTION</b></p> <p>Ensure that the fire pumps are properly aligned (WP 0071 00, volume 1) prior to performing this check. Failure to comply with this caution will result in damage to the fire pumps.</p> <p>Press each remote START/STOP switch and ensure that each pump STARTs and STOPs properly.</p> 	Switch will not START or STOP pumps.
15	Before	0.2	SEARCHLIGHTS	<p><b>WARNING</b></p>  <p><b>DO NOT energize this circuit before first checking to ensure that the protective lamp cover has been removed. Use extreme care when performing maintenance work or operating the searchlight. Dangerously high voltage (over 50,000 VOLTS) is used in the lamp starting circuit.</b></p>	Test operate searchlights.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Before	0.2	Searchlight Control Panel	<p>While operating the searchlight from the searchlight control panel, have another person verify that the searchlight moves in desired direction. Change SPEED control and operate the joystick to ensure that SPEED control operates properly. Operate focus switch to ensure that searchlight can be focused.</p>	If both searchlights cannot be directed from the control panel.

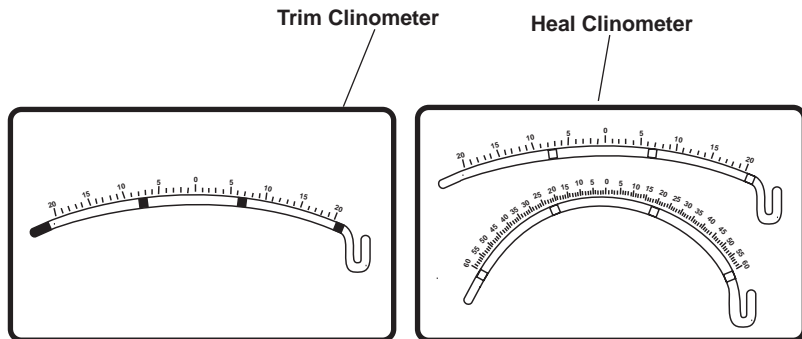
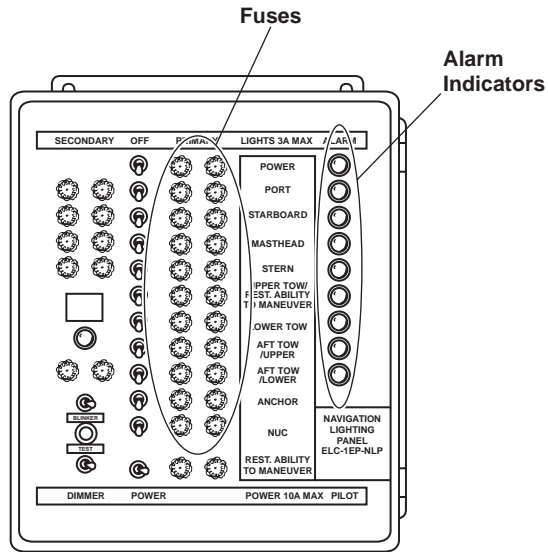


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Before	0.2	Control Air Pressure Gauge	With pilothouse console in command, ensure that the control air pressure gauge reads approximately 125 PSI (8.6 bar).	Reading below 110 or above 140 PSI (7.6 or 9.7 bar).
18	Before	0.2	Command Transfer	Test command transfer operation. Ensure that control operates smoothly. Verify ability to transfer control.	Unable to transfer control.
19	Before	0.2	CLEARVIEW SCREENS Windows	Visually inspect windows for obvious damage and secure mounting.	Window broken or not securely mounted, or motor is loose.
20	Before	0.2	Control Box Exterior	Visually inspect exterior for obvious damage and secure mounting.	Control box damage or not securely mounted.

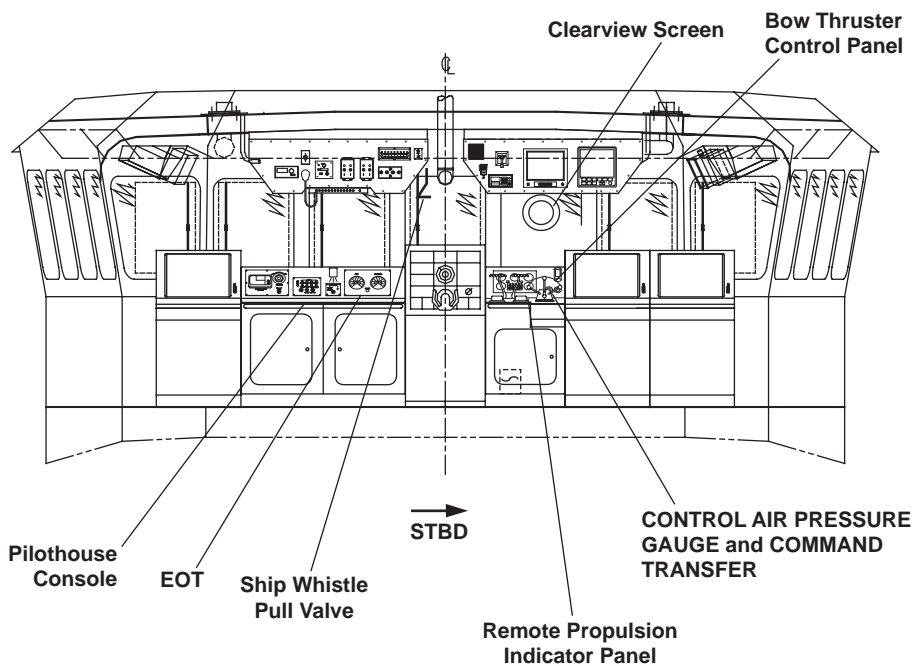


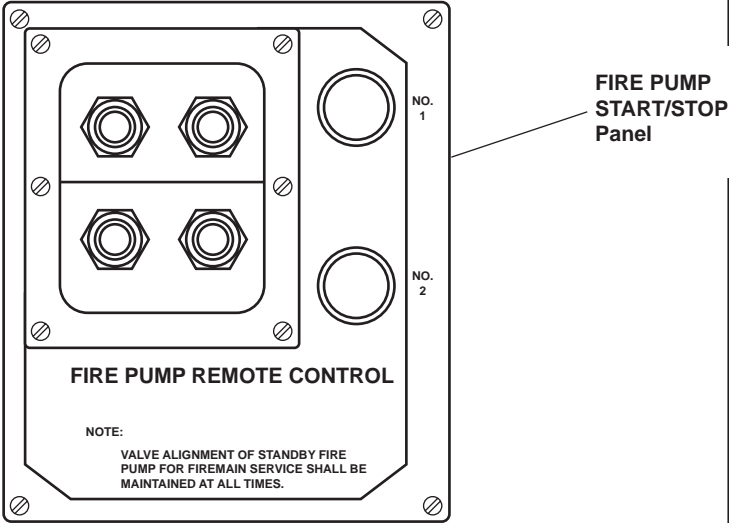


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
21	During	0.3	PILOTHOUSE  NAVIGATION LIGHTING PANEL	Inspect pilothouse for cleanliness and stowage.	
22	During	0.2	Inspect	Visually inspect to ensure that all navigation lights operate properly when the respective light switches on the navigation lighting panel are in the primary and secondary position.	
23	During	0.2	Operation	Check that all lights are operative, and/or circuits function normally.	
24	During	0.1	TRIM & HEEL CLINOMETERS	Inspect for obvious damage and secure mounting.	



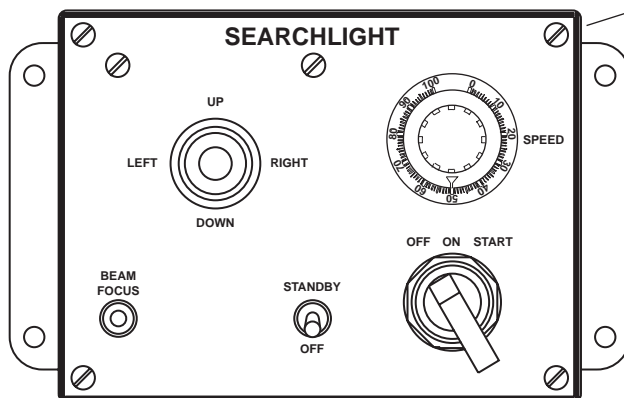
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
25	During	0.2	SHIP WHISTLE PULL VALVE	Inspect	
26	During	0.2	Test	Operate whistle. Check that the valve operates smoothly and closes when released.	Whistle does not operate.
27	During	0.2	PILOTHOUSE CONSOLE	Inspect console for cleanliness; clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that throttle controls operate smoothly and do not bind.	Any critical control or indicator that is unserviceable.
28	During	0.2	Bow Thruster Control Panel	RUN LT should be lit. HI WTR TEMP LT and LO PRESS LT should not light. Verify operation of start/stop controls and RPM indicator. Adjust intensity lights using DIMMER control.	HI WTR TEMP LT and LO PRESS LT illuminates or controls inoperative.



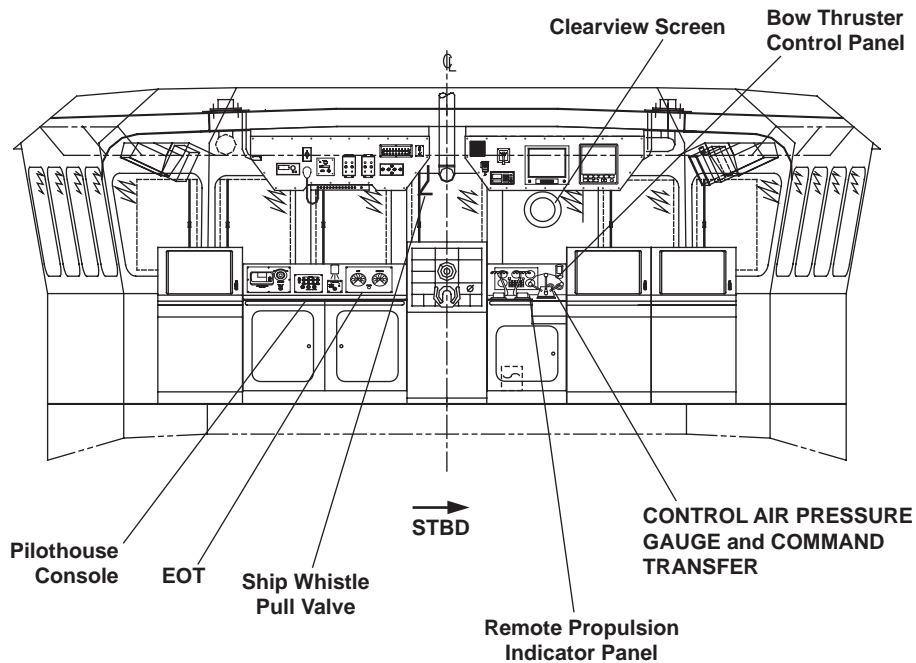
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
29	During	0.2	Fire Pump START/ STOP Panel	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p>Ensure that the fire pumps are properly aligned (WP 0071 00, volume 1) prior to performing this check. Failure to comply with this caution will result in damage to the fire pumps.</p> <p>Press each remote START/STOP switch and ensure that each pump STARTs and STOPs properly.</p> <div style="text-align: center;">  </div>	Switch will not START or STOP pumps.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
30	During	0.2	SEARCHLIGHTS Searchlight Control Panel	While operating the searchlight from the searchlight control panel, have another person verify that the searchlight moves in desired direction. Change SPEED control and operate the joystick to ensure that SPEED control operates properly. Operate focus switch to ensure that searchlight can be focused.	If both searchlights cannot be directed from the control panel.
31	During	0.2	Test	Test operate searchlights.	

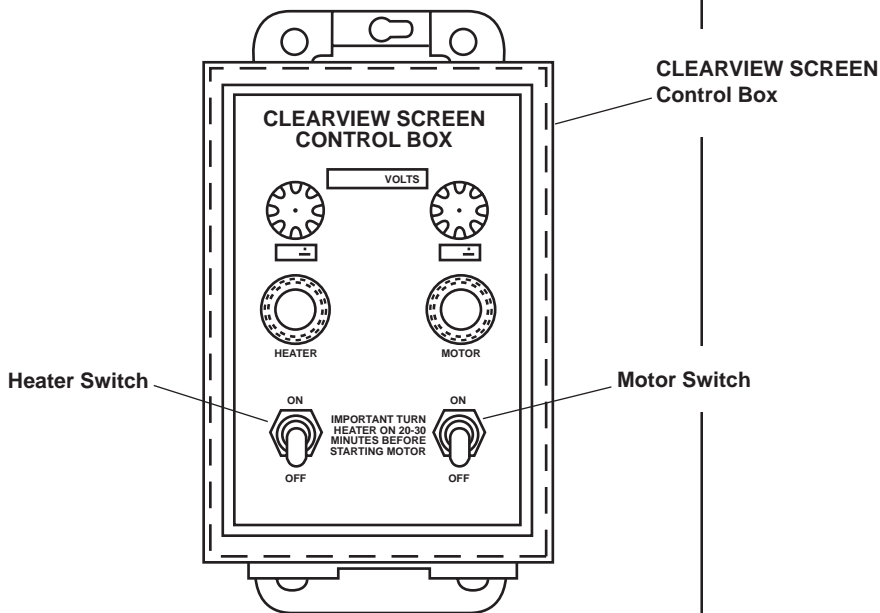
Searchlight Controls

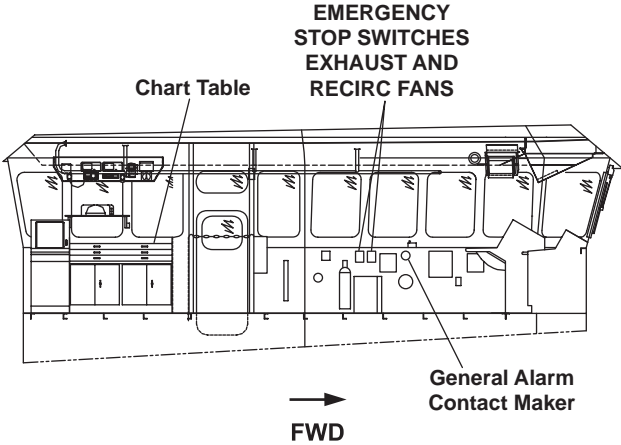
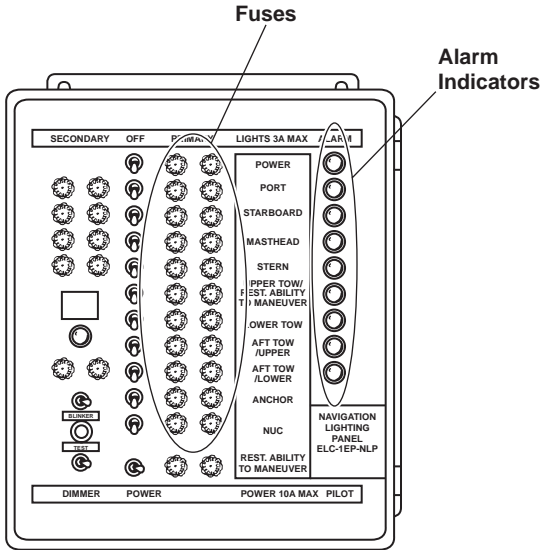


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
32	During	0.2	Control Air Pressure Gauge	With pilothouse console in command, ensure that the control air pressure gauge reads approximately 125 PSI (8.6 bar).	Reading below 110 or above 140 PSI (7.6 or 9.7 bar).
33	During	0.2	Command Transfer	Test command transfer operation. Ensure that control operates smoothly. Verify ability to transfer control.	Unable to transfer control.

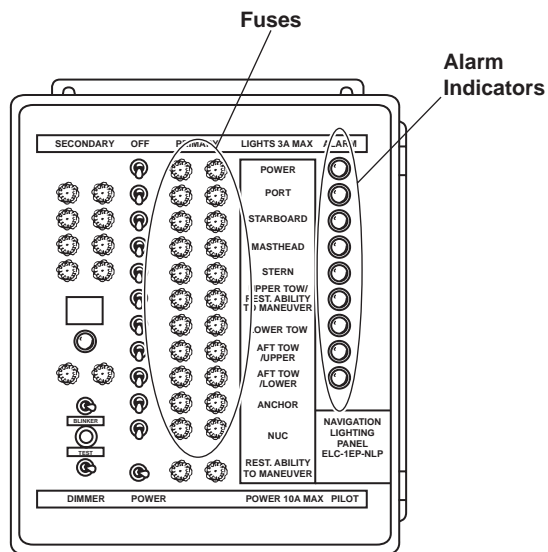


ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
34	During	0.2	CLEARVIEW SCREENS Operation	Turn ON the motor switch; ensure that MOTOR indicator is lit and screen spins.	Window does not spin.
35	During	0.2	Heater	Turn ON heater switch; ensure HEATER indicator is lit. After 5 minutes place hand near, but not on screen; warmth should be felt.	Heater does not work.

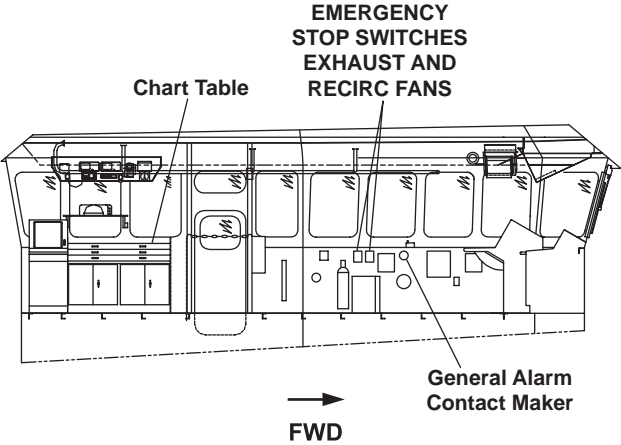
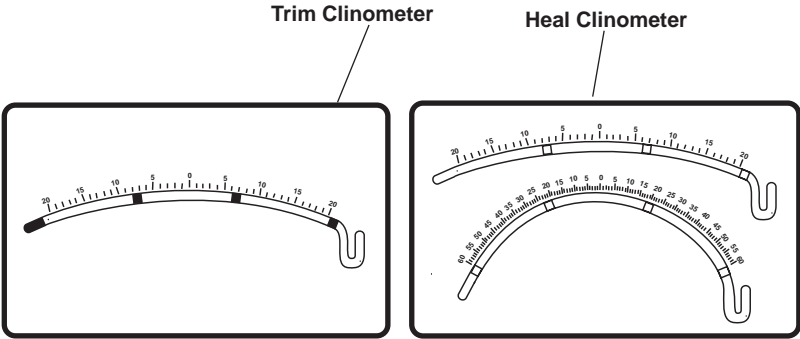


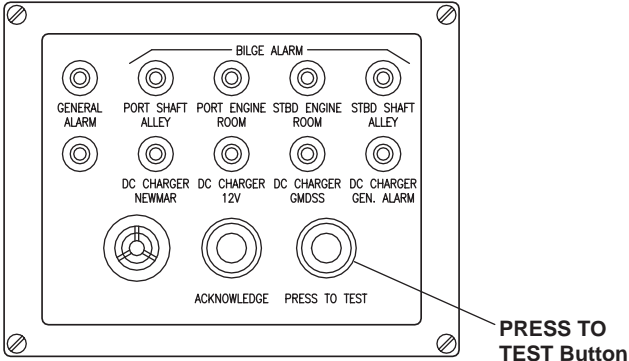
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
36	Weekly	0.3	PILOTHOUSE	Inspect pilothouse for cleanliness and stowage.	
37	Weekly	0.1	CHART TABLE	Inspect table for secure mounting. Check that illumination control functions.	
					
38	Weekly	0.2	NAVIGATION LIGHTING PANEL Inspect	Visually inspect to ensure that all navigation lights operate properly when the respective light switches on the navigation lighting panel are in the primary and secondary position.	
					

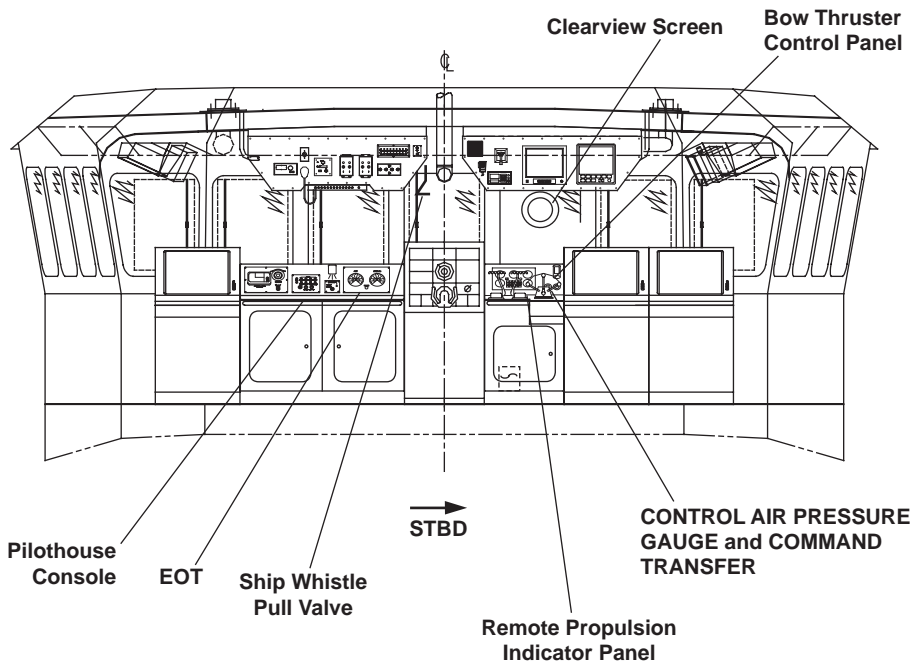
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
39	Weekly	0.2	Operation	Check that all lights are operative, and/or circuits function normally.	
40	Weekly		Alarm	Remove fuse. Ensure that alarm sounds.	Alarm inoperative.



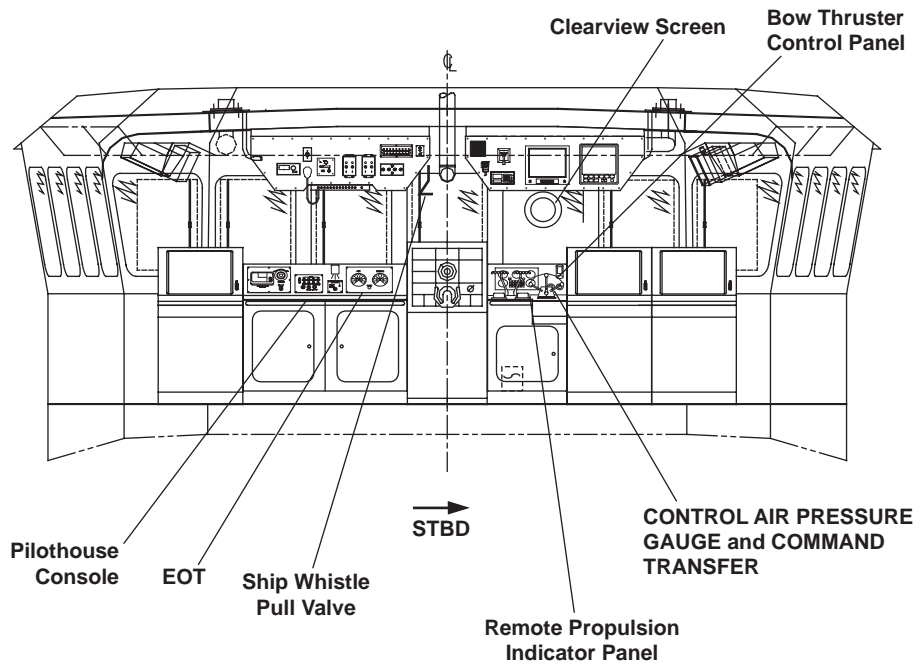


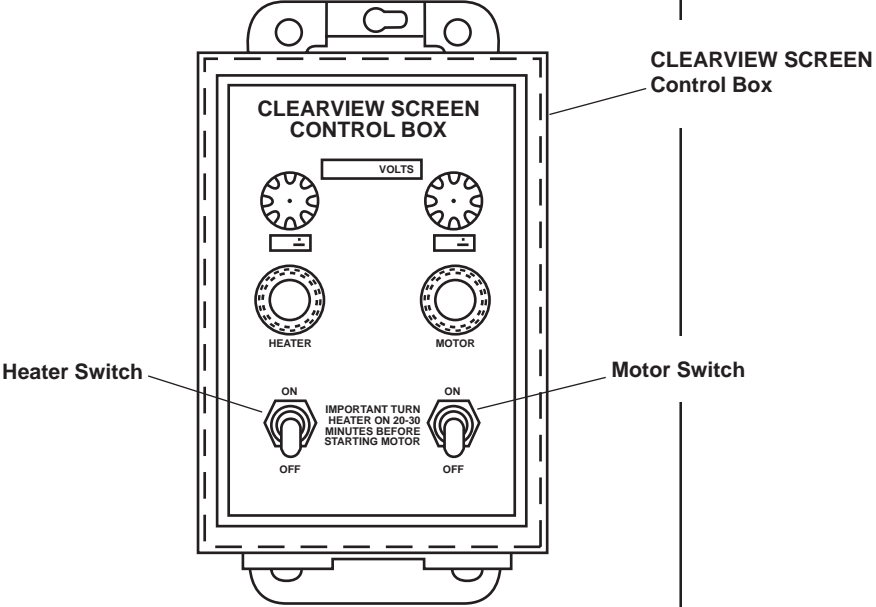
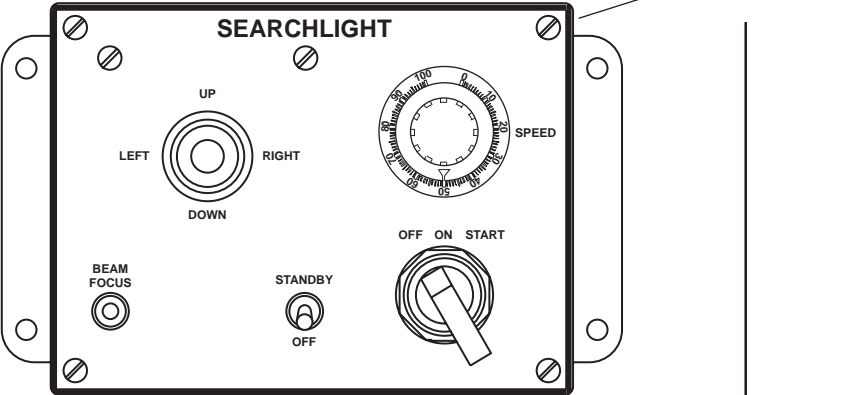
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
41	Weekly	1.0	GENERAL ALARM	Sound the alarm, and ensure that all bells and lights operate in all compartments.	Any bell or light does not function.
42	Weekly	0.1	EMERGENCY STOP SWITCHES FOR EXHAUST AND RECIRCULATION FANS	Inspect panels for obvious damage or missing or broken switches or indicators.	
 <p style="text-align: center;">EMERGENCY STOP SWITCHES EXHAUST AND RECIRC FANS</p> <p style="text-align: center;">Chart Table</p> <p style="text-align: center;">General Alarm Contact Maker</p> <p style="text-align: center;">→ FWD</p>					
43	Weekly	0.1	TRIM & HEEL CLINOMETERS	Inspect for obvious damage and secure mounting.	
 <p style="text-align: center;">Trim Clinometer</p> <p style="text-align: center;">Heel Clinometer</p>					

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
44	Weekly	1.0	<p>PILOTHOUSE ALARM PANEL</p> 	<p>Visually inspect for obvious damage, press the PRESS TO TEST button, and verify that alarm indications are functional.</p>	<p>Obvious damage or alarms do not occur.</p>
45	Weekly	3.0	<p>PILOTHOUSE CONSOLE</p>	<p>Inspect console for cleanliness. Clean as required. Look for any loose, missing, or broken switches or controls, gauges, indicator lights, or obvious damage. Ensure that throttle controls operate smoothly and do not bind.</p>	<p>Any critical control or indicator that is unserviceable.</p>



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
46	Weekly	0.2	Engine Order Telegraph	Conduct test with the EOS to ensure communication. Move selector through each position ensuring corresponding indicator lights.	No communication with EOS.
47	Weekly	0.2	Remote Propulsion Indicator Panel	Press and hold LAMP TEST button. All lights should light. Adjust intensity of the lights using the DIMMER control.	
48	Weekly	0.2	Steering Control Panel	Press the PANEL TEST pushbutton. All panel lights should light. Use dimmer to adjust the intensity of the lights. Any panel lights do not light.	
49	Weekly	0.2	CLEARVIEW SCREENS Windows	Visually inspect windows for obvious damage and secure mounting.	Window broken or not securely mounted, or motor is loose.



ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
50	Weekly	0.2	Control Box Exterior	<p>Visually inspect exterior for obvious damage and secure mounting.</p> 	Control box damage or not securely mounted.
51	Weekly	0.2	SEARCHLIGHTS	<p>Test operate searchlights.</p> 	Searchlight Controls

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
52	Monthly	0.2	PILOTHOUSE CONSOLE  Command Transfer	Test command transfer operation. Ensure that control operates smoothly. Verify ability to transfer control.	Unable to transfer control.

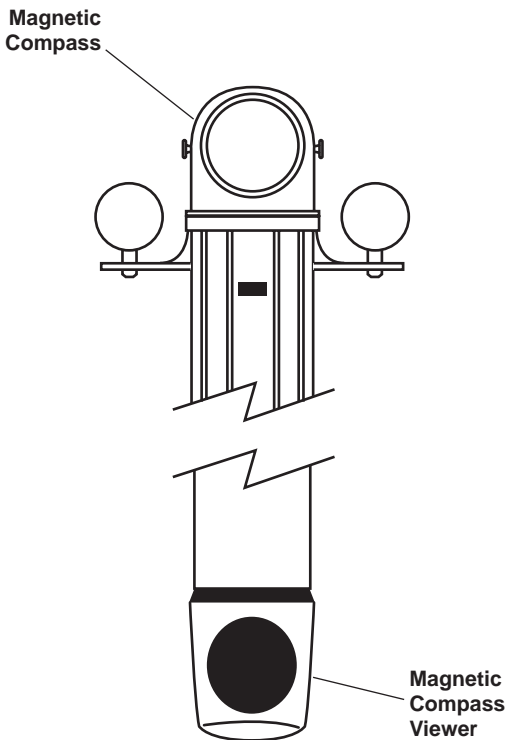
END OF WORK PACKAGE



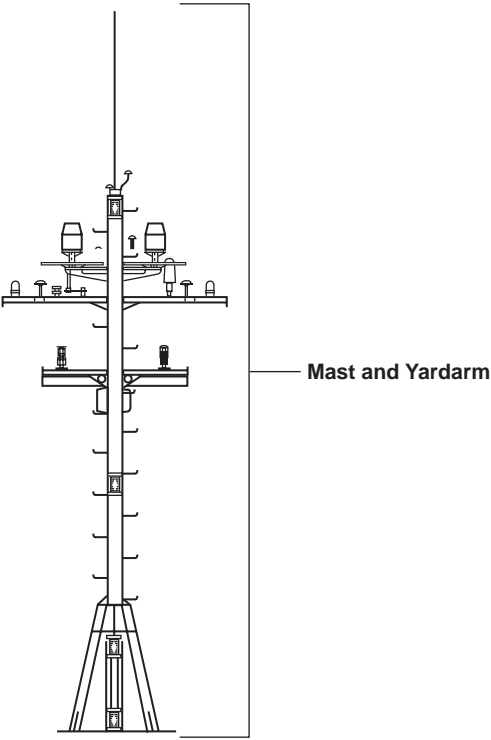
**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
PREVENTIVE MAINTENANCE CHECKS AND SERVICES INCLUDING LUBRICATION  
PILOTHOUSE TOP AND MASTS**

**Table 1. Operator Preventive Maintenance Checks and Services**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	0.2	MAGNETIC COMPASS	<div style="border: 2px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p><b>Radar and radio equipment transmit harmful radiation. Ensure that all transmitting devices are properly secured, locked out, and tagged out (FM 55-502) prior to allowing personnel to work on the pilothouse top and masts. Failure to comply may result in serious injury or death.</b></p> <ol style="list-style-type: none"> <li>a. When underway, check heading against gyro on two known courses.</li> <li>b. Check deviation whenever metal structural changes are made to the vessel, or when electronic equipment is added/removed.</li> <li>c. Check that the deviation card is current and that the annual deviation card is located in immediate vicinity of the compass.</li> <li>d. Check the compensating magnets, and if damage is found, refer to unit maintenance.</li> </ol>	<p>Magnetic compass is inoperative and/or the compass will not swing freely in its gimbal.</p>



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Before	0.5	MAST AND YARDARM	<p>Inspect for mechanical damage to navigational equipment and ensure that lights are functional.</p> 	Mast is damaged to the extent that navigational systems are not properly supported.



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

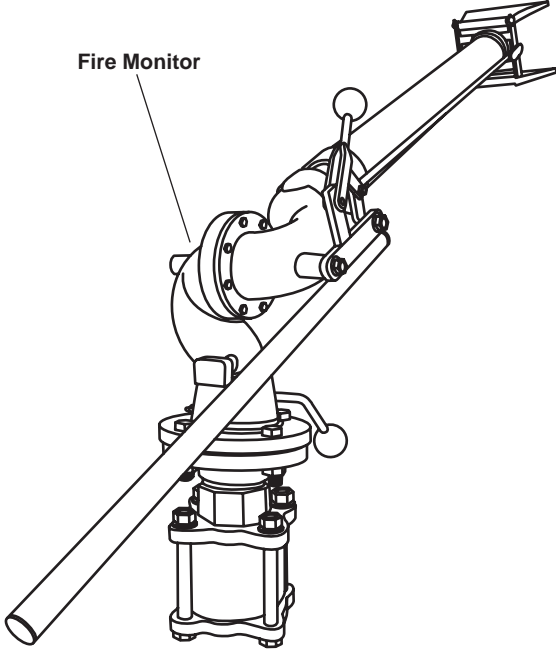

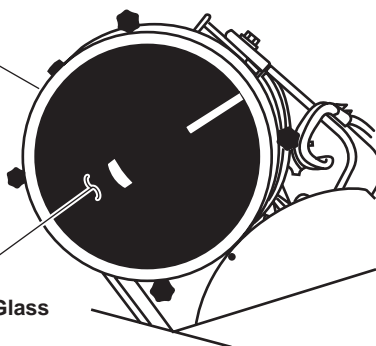
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	0.5	FIRE MONITORS	<p>Inspect for secure mounting. Inspect exterior for damage, corrosion, or rust. Ensure that traversing lock locks monitor in place.</p> 	<p>Not securely mounted. Excessive corrosion. Traversing lock does not secure monitor.</p>

Table 1. Operator Preventive Maintenance Checks and Services (continued)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before	0.2	500 WATT XENON SEARCHLIGHTS  Lamp	<div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 10px;"><b>WARNING</b></div> <p>When hot, high pressures exist inside the lamp, and it could explode. Handle the lamp only in its protective cover, and remove the protective cover before energizing circuits. Wear eye protection and gloves when handling the lamp. Avoid direct exposure from the direct and reflected radiations given off by the lamp, even though the front cover glass provides protection from these radiations. Do not stand close to the searchlight front cover glass when the lamp is lighted. In the event of lamp explosion the front cover glass could break.</p> <div style="text-align: center; margin-bottom: 10px;">  <b>CAUTION</b> </div> <p>Operation of the lamp with finger marks or grease on the surface will cause deterioration of the quartz tube.</p> <p>Visually inspect lamp for blackening and cracks in the quartz. If black or cracked, refer to unit maintenance for repair.</p>	

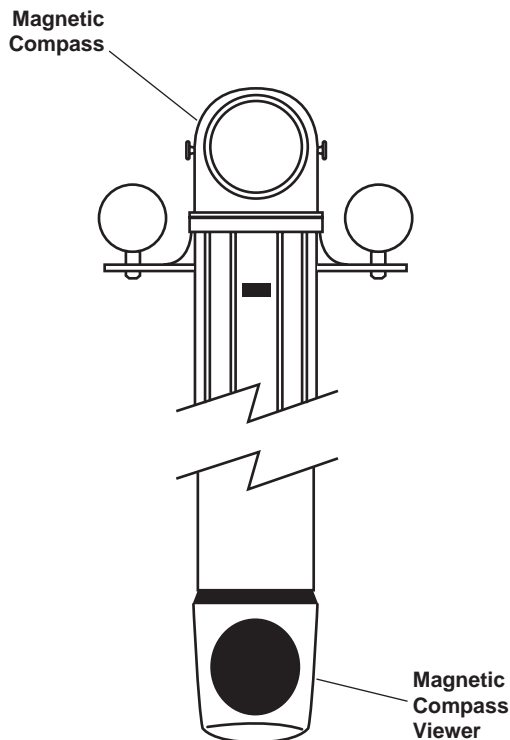
500 WATT Xenon Search Light



Front Cover Glass

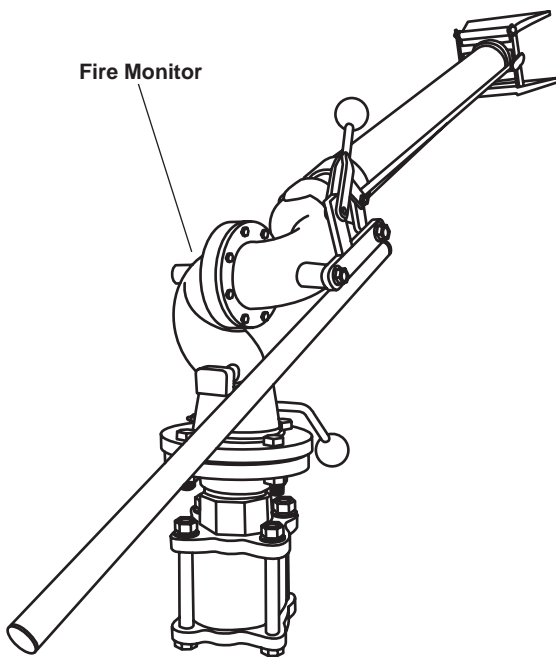
**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	During	0.2	MAGNETIC COMPASS	<p>a. When underway, check heading against gyro on two known courses.</p> <p>b. Check deviation whenever metal structural changes are made to the vessel, or when electronic equipment is added/removed.</p> <p>c. Check that the deviation card is current and that the annual deviation card is located in immediate vicinity of the compass.</p> <p>d. Check the compensating magnets, and if damage is found, refer to unit maintenance.</p>	<p>Magnetic compass is inoperative and/or the compass will not swing freely in its gimbal.</p>



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

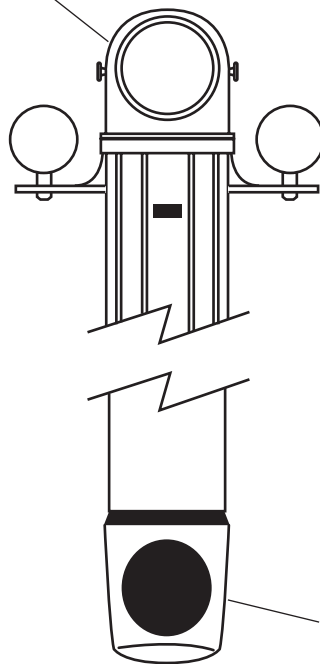
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	During	0.2	FIRE MONITORS	Inspect for secure mounting. Inspect exterior for damage, corrosion, or rust. Ensure that traversing lock locks monitor in place.	Not securely mounted. Excessive corrosion. Traversing lock does not secure monitor.
7	During	0.2	Valve and Leaks	a. Ensure that valve operates smoothly.  b. Observe pedestal, swivel, and monitor for leaks.	Valve does not operate.  Class III leaks.



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	After	0.2	MAGNETIC COMPASS	<p>a. When underway, check heading against gyro on two known courses.</p> <p>b. Check deviation whenever metal structural changes are made to the vessel, or when electronic equipment is added/removed.</p> <p>c. Check that the deviation card is current and that the annual deviation card is located in immediate vicinity of the compass.</p> <p>d. Check the compensating magnets, and if damage is found, refer to unit maintenance.</p>	<p>Magnetic compass is inoperative and/or the compass will not swing freely in its gimbal.</p>

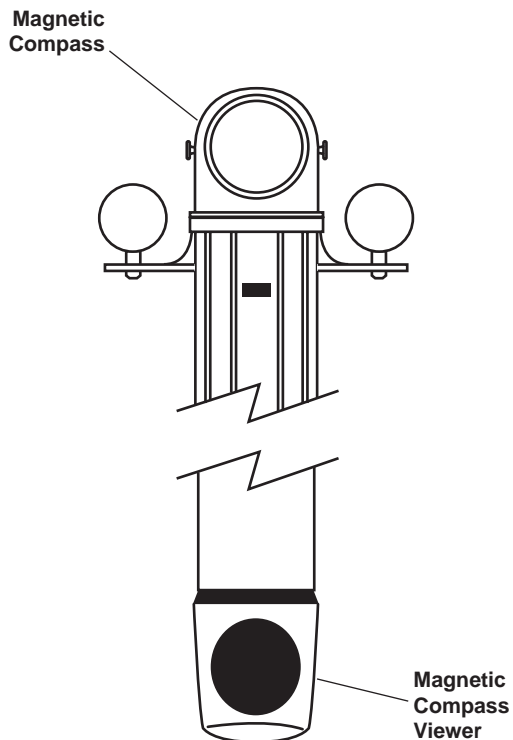
Magnetic  
Compass



Magnetic  
Compass  
Viewer

**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Weekly	0.2	MAGNETIC COMPASS	<p>a. When underway, check heading against gyro on two known courses.</p> <p>b. Check deviation whenever metal structural changes are made to the vessel, or when electronic equipment is added/removed.</p> <p>c. Check that the deviation card is current and that the annual deviation card is located in immediate vicinity of the compass.</p> <p>d. Check the compensating magnets, and if damage is found, refer to unit maintenance.</p>	<p>Magnetic compass is inoperative and/or the compass will not swing freely in its gimbal.</p>



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

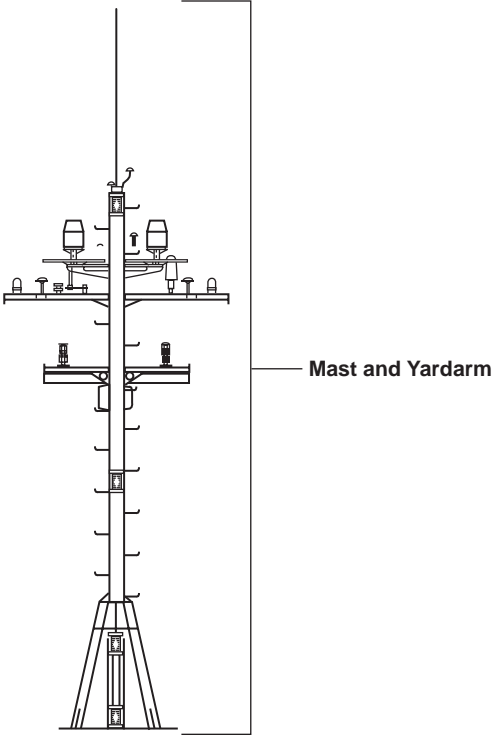

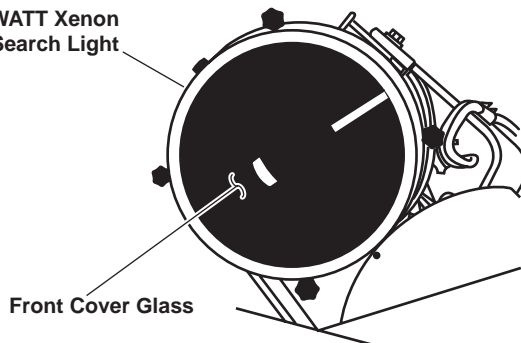
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Weekly	0.5	MAST AND YARDARM	<p>Inspect for mechanical damage to navigational equipment and ensure that lights are functional.</p> 	Mast is damaged to the extent that navigational systems are not properly supported.

Table 1. Operator Preventive Maintenance Checks and Services (continued)

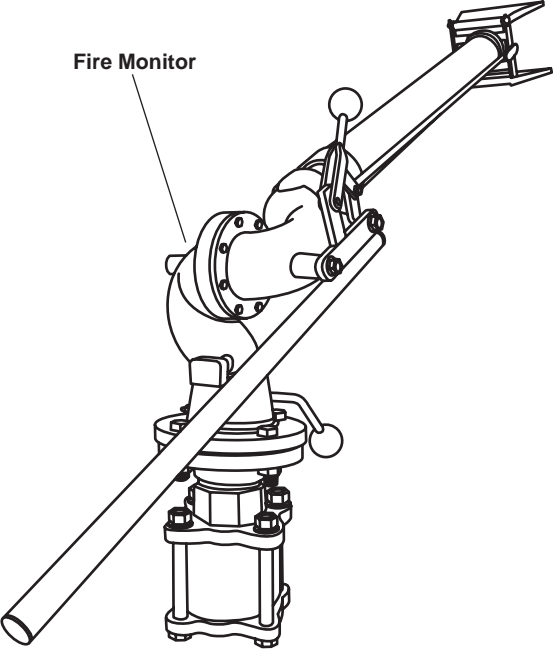
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			500 WATT XENON SEARCHLIGHTS	<div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <p>When hot, high pressures exist inside the lamp, and it could explode. Handle the lamp only in its protective cover, and remove the protective cover before energizing circuits. Wear eye protection and gloves when handling the lamp. Avoid direct exposure from the direct and reflected radiations given off by the lamp, even though the front cover glass provides protection from these radiations. Do not stand close to the searchlight front cover glass when the lamp is lighted. In the event of lamp explosion the front cover glass could break.</p> <div style="text-align: center; margin: 10px 0;">  <b>CAUTION</b> </div> <p>Operation of the lamp with finger marks or grease on the surface will cause deterioration of the quartz tube.</p>	
11	Weekly	0.2	Reflector	Visually inspect for tarnishing, dirt buildup, or corrosion. Refer cleaning requirements to unit maintenance.	
12	Weekly	0.2	Front Cover Glass	Visually inspect glass for defects or dirt buildup. Refer corrective action to unit maintenance.	
13	Weekly	0.2	Case	Visually inspect the case for damage, dirt buildup, or corrosion. Refer for corrective action to unit maintenance.	

500 WATT Xenon Search Light



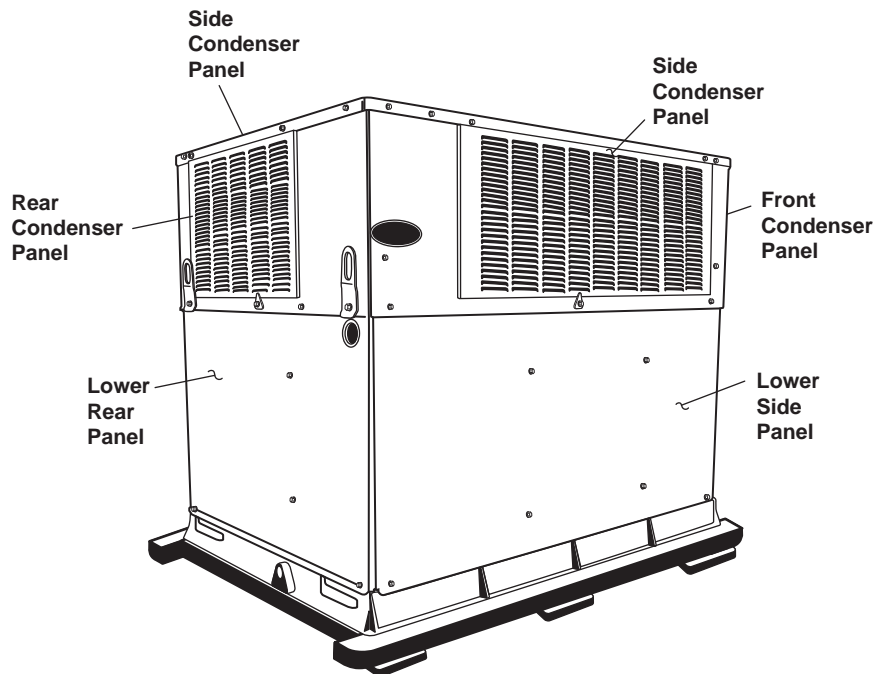


**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
14	Monthly	0.5	FIRE MONITORS	<p>Inspect for secure mounting. Inspect exterior for damage, corrosion, or rust. Ensure that traversing lock locks monitor in place.</p> 	<p>Not securely mounted. Excessive corrosion. Traversing lock does not secure monitor.</p>

**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Monthly	0.2	PILOTHOUSE AND RADIO ROOM ROOFTOP AIR CONDITIONING UNITS  Pilothouse Rooftop Air Conditioning Units	Inspect the grill for proper mounting and damage. Inspect panels to ensure that all panels and mounting hardware is present.	Any panel missing, foundation cracked, or foundation mounting hardware missing



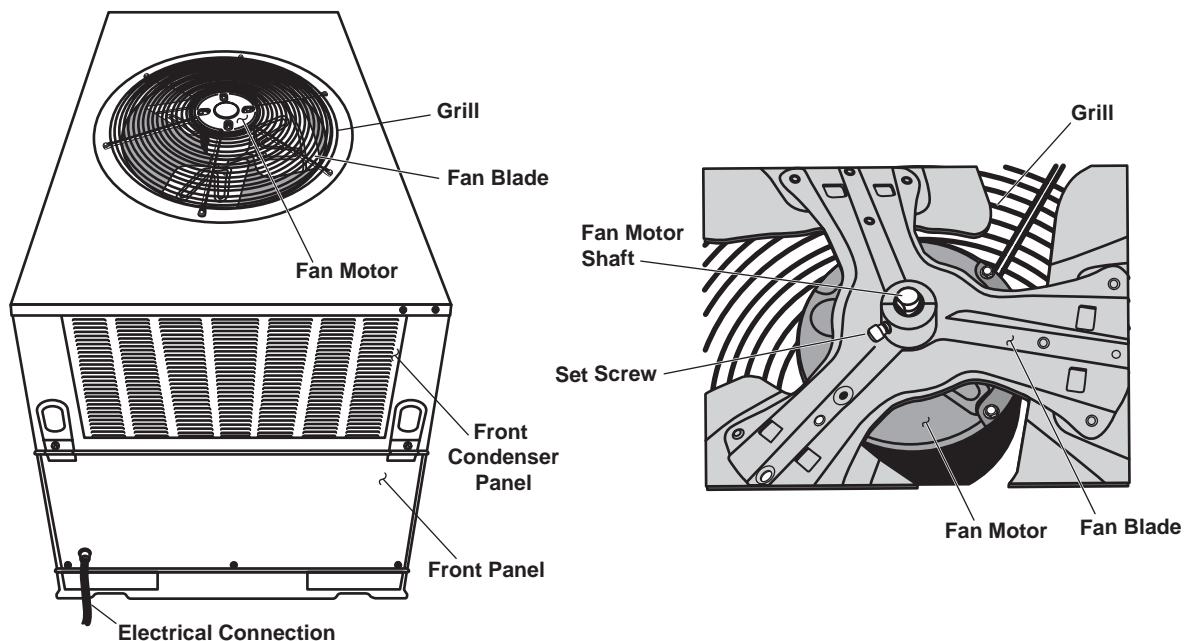
**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Monthly	0.2	Pilothouse Roof-top Air Conditioning Units, Air Filters	Inspect the air filter for blockage.	

The diagram illustrates the internal components of the Pilothouse Roof-top Air Conditioning Unit. It shows a perspective view of the unit's structure, including the Pilothouse Overhead, Return Duct, Air Filter, and Grill. The Return Duct is shown as a rectangular duct leading to the Air Filter, which is a rectangular mesh. Below the Air Filter is the Grill, which is a larger rectangular mesh. The Pilothouse Overhead is shown as a slanted structure above the unit. The diagram is a technical drawing with labels and leader lines pointing to the respective parts.

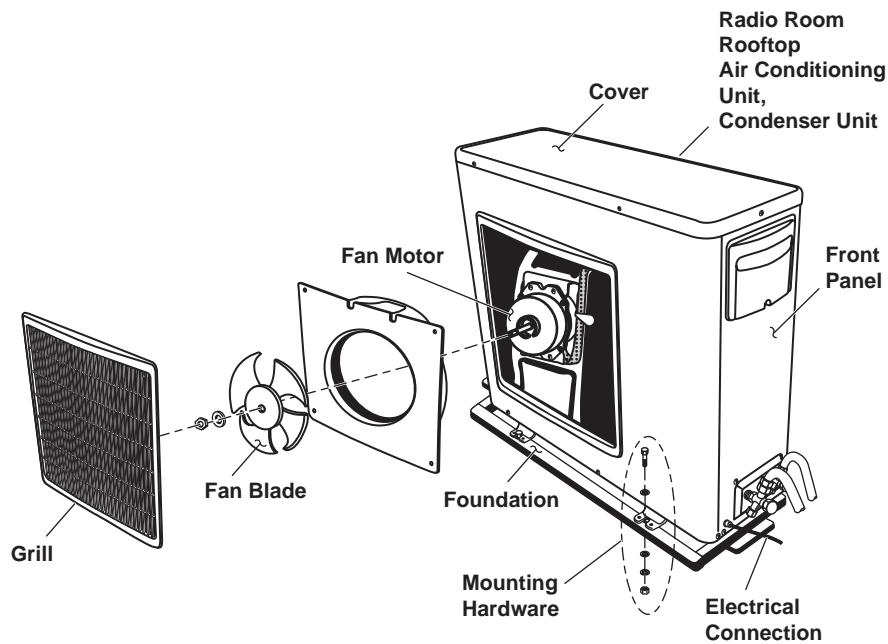
**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
17	Monthly	0.2	Pilothouse Rooftop Air Conditioning Units, Electrical Connections	Inspect the electrical connection to ensure that it is properly mounted and that the wires are not exposed.	Electrical wiring not connected or wires are exposed.
18	Monthly	0.4	Pilothouse Rooftop Air Conditioning Units, Fan Blade	Inspect the fan blade for cracks and to ensure that the setscrew is present.	Fan blade is cracked or setscrew is missing.



**Table 1. Operator Preventive Maintenance Checks and Services (continued)**

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
19	Monthly	0.2	Radio Room Rooftop Air Conditioning Unit, Condenser Unit	Inspect the condenser unit mounting hardware to ensure that it is present. Inspect the condenser unit foundation for cracks. Inspect the condenser unit panels to ensure that they are present and that they are free from dents and corrosion.	Mounting hardware is missing, the foundation is cracked, or the panels are excessively damaged by corrosion.
20	Monthly	0.2	Radio Room Rooftop Air Conditioning Unit, Condenser Unit, Electrical Connection	Inspect the electrical connection to ensure that it is properly mounted and that the wires are not exposed.	Electrical wiring not connected or wires are exposed.
21	Monthly	0.4	Radio Room Rooftop Air Conditioning Unit, Condenser Unit, Fan Blade	Inspect the fan blades for cracked or broken blades.	Fan blades are cracked or broken.



**Table 2. Refrigerant Specifications**

<b>Equipment</b>	<b>Refrigerant</b>
Pilothouse Rooftop Air Conditioning Units	R-22
Radio Room Rooftop Air Conditioning Unit	R-22

**END OF WORK PACKAGE**

**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
MAINTENANCE**

All maintenance for the Inland and Coastal Large Tug (LT) is contained in the technical manuals listed in table 1. Refer to these technical manuals for all maintenance instructions.

**Table 1. Large Tug Maintenance Publications**

System	Technical Manual Number
Air Compressor	TM 55-1925-286-13&P
Bow Thruster	TM 55-1925-214-24&P
Bow Thruster Engine	TM 55-1925-212-24&P
C4ISR and IBS	TM 55-5825-311-10
Commissary Equipment	TM 55-1925-226-24&P
Deck Machinery and Hydraulic System	TM 55-1925-294-14&P
Engine Room Monitoring	TM 55-1925-225-24&P
Environmental Control	TM 55-1925-224-24&P
Firefighting, Fire Alarm, and Fire Suppression Systems	TM 55-1925-292-14&P
Fuel Filter/Water Separator (Fuel Transfer)	TM 55-1925-283-12&P
Generator Set, Emergency	TM 55-1925-210-24
Generator Set, Emergency	TM 55-1925-210-24P
Generator Set, Ship's Service	TM 55-1925-209-24-1
Generator Set, Ship's Service	TM 55-1925-209-24P
GMDSS	TM 55-5830-283-10
Laundry Equipment	TM 55-1925-233-24&P
Lube Oil Purification System	TM 55-1925-213-24&P
Main Propulsion Engines	TM 55-1925-208-24
Main Propulsion Engines	TM 55-1925-208-24P
Main Reduction Gear	TM 55-1925-223-24&P
Marine Sanitation System	TM 55-1925-284-14&P
Oil Water Separator (OWS)	TM 55-1925-285-13&P
Propulsion Controls	TM 55-1925-222-24&P
Propulsion Shaft Couplings, Brakes, and Seals	TM 55-1925-228-24&P

**Table 1. Large Tug Maintenance Publications**

<b>System</b>	<b>Technical Manual Number</b>
Pump Drive Engine	TM 55-1925-211-24
Pump Drive Engine	TM 55-1925-211-24P
Refrigeration Machinery	TM 55-1925-231-24&P
Reverse Osmosis Water Purification Unit (ROWPU)	TM 55-1925-282-14&P
Steering Gear System	TM 55-1925-215-24&P
Vessel	TM 55-1925-273-24&P
Vessel	TM 55-1925-273-SDC
Work Boat	TM 55-1945-224-14&P
Work Boat Motor	TM 55-1945-221-14&P

**END OF WORK PACKAGE**



**Chapter 7**

**Supporting Information**  
**for**  
**Inland and Coastal Large Tug (LT)**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
REFERENCES**

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This work package lists all field manuals, forms, technical manuals, and miscellaneous publications referenced in this manual.

**FIELD MANUALS**

FM 4-25.11	First Aid
FM 55-502	Watercraft Safety

**TECHNICAL MANUALS**

TM 38-470	Storage and Maintenance of Army Prepositioned Stock Materiel
TM 55-1925-208-24	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Main Propulsion Engine Inland And Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-208-24P	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Repair Parts And Special Tools List for Main Propulsion Engine Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-209-24-1	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Ship's Service Generator Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGEe) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-209-24-2	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Ship's Service Generator Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGEe) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-209-24P	Unit, Intermediate Direct Support and Intermediate General Support Repair Parts and Special Tools List for Ship's Service Generator Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-210-24	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Emergency Generator Set Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-210-24P	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Repair Parts and Special Tools List for Emergency Generator Set Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-211-24	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Pump Drive Engine Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-211-24P	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Repair Parts and Special Tools List For Pump Drive Engine Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-212-24&P	Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Bow Thruster Engine Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

**TECHNICAL MANUALS (continued)**

TM 55-1925-213-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Lube Oil Purification System Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-214-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Bow Thruster Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-215-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Steering Gear System Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-222-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Propulsion Controls Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-223-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Main Reduction Gear Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-224-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Environmental Control Subsystem Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-225-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Engine Room Monitoring System Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-226-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Commissary Equipment Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-228-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Propulsion Shaft Couplings, Brakes, and Seals Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-231-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Refrigeration Machinery Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-233-24&P Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Laundry Equipment Inland and Coastal Large Tug (LT) NSN 1925-01-247-7110 (EIC WGE) Inland and Coastal Large Tug (LT), Stability Modification NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-273-24&P Unit, Direct Support, and General Support Maintenance Manual Including Repair Parts and Special Tools List for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-273-SDC Damage Control Manual for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)

TM 55-1925-282-14&P Operator, Unit, Direct Support, and General Support Maintenance Manual, Including Repair Parts and Special Tools List for Reverse Osmosis Water Purification Unit Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)

**TECHNICAL MANUALS (continued)**

TM 55-1925-283-12&P	Operator and Unit Maintenance Manual, Including Repair Parts and Special Tools List for Fuel Filter/Water Separator (Fuel Transfer System) Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-284-14&P	Operator, Unit, Direct Support, and General Support Maintenance Manual, including Repair Parts and Special Tools List for Marine Sanitation Device Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-285-13&P	Operator, Unit, and Direct Support Maintenance Manual, including Repair Parts and Special Tools List for Oil Water Separator Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-286-13&P	Operator, Unit, and Direct Support Maintenance Manual, including Repair Parts and Special Tools List for Air Compressor for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-292-14&P	Operator, Unit, Direct Support, and General Support Maintenance Manual, including Repair Parts and Special Tools List for Firefighting, Fire Alarm, and Fire Suppression Systems for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1925-294-14&P	Operator, Unit, Direct Support, and General Support Maintenance Manual, including Repair Parts and Special Tools List for Deck Machinery and Hydraulic System for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
TM 55-1945-224-14&P	Operator, Unit, Direct Support, and General Support Maintenance Manual, (Including Repair Parts and Special Tools List) for Boat, Inflatable, Rigid Hull(Zodiac) Model M-B-10005 H472 © September 1993, Zodiac of North America, Inc. NSN 1940-01-505-1621
TM 55-1945-221-14&P	Operator, Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List) for Outboard Motor (Johnson-OMC)Model #70 © 2000 Outboard Motor Corporation NSN 2805-01-505-1613
TM 55-5825-311-10	Operator's Manual for Large Tug C4ISR Suite
TM 55-5830-283-10	Operator's Manual for U.S. Army Watercraft Global Maritime Distress and Safety System (GMDSS)

**TECHNICAL BULLETINS**

AR 70-71	U.S. Army Regulation (NBC Contamination)
STP 21-1-SMCT	U.S. Army Training Manual - (MOPP IV Clothing)
TB 43-0218	Inspection, Use and Tightening of Metal Fasteners Used on Tank-Automotive Equipment
TB 55-1900-232-10	U.S. Army Towing Manual
TB 740-97-4	Preservation of Vessels for Storage

**FORMS AND PAMPHLETS**

DA Form 2028	Recommended Changes to Equipment Technical Publications
DA Form 2404	Equipment Inspection and Maintenance Worksheet
DA Form 2407	Maintenance Request
DA Form 2408-9	Equipment Control Record
DA Form 4640	Harbor Boat Deck Department Log for Class A&B Vessels
DA Form 4993	Harbor Boat Engine Department Log for Class A and C-1 Vessels
DA PAM 738-750	Functional Users Manual for The Army Maintenance Management System (TAMMS)
SF 368	Product Quality Deficiency Report

**HANDBOOKS AND STANDARDS**

MIL-HDBK-113	Guide for the Selection of Lubricants, Functional Fluids, Preservatives, and Specialty Products for Use in Ground Equipment Systems
MIL-HDBK-275	Guide for the Selection of Lubricant Fluids and Compounds for Use in Flight Vehicles and Components

**END OF WORK PACKAGE**



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS**

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## **INTRODUCTION**

### **SCOPE**

This work package lists COEI and BII for the Inland and Coastal Large Tug (LT) to help you inventory items for safe and efficient operation of the equipment.

### **GENERAL**

The COEI and BII information is divided into the following lists:

**Components of End Item (COEI).** This list is for information purposes only and is not authority to requisition replacements. These items are part of the Inland and Coastal Large Tug (LT). As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

**Basic Issue Items (BII).** These essential items are required to place the Inland and Coastal Large Tug (LT) in operation, operate them, and to do emergency repairs. Although shipped separately packaged, BII must be with the Inland and Coastal Large Tug (LT) during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

### **EXPLANATION OF COLUMNS IN THE COEI LIST AND BII LIST**

Column (1) Illus Number. Gives you the number of the item illustrated.

Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, CAGEC, and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the CAGEC (Commercial and Government Entity Code) (in parentheses) and the part number.

Column (4) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (5) Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.

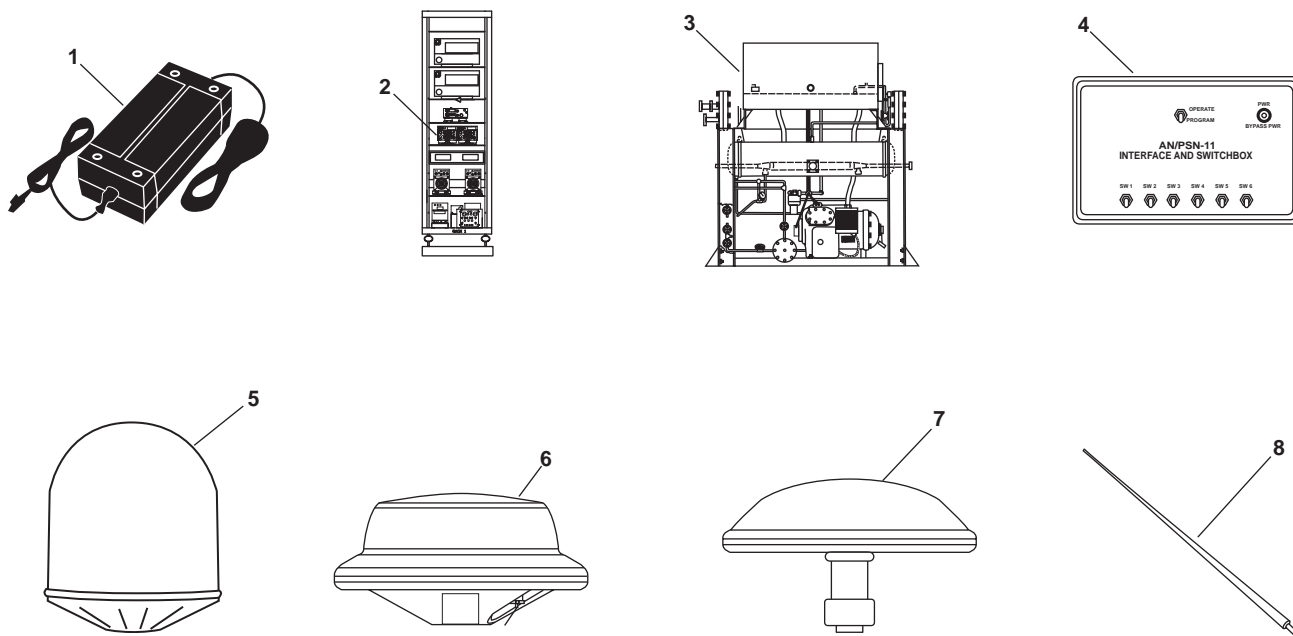


Table 1. Components of End Item List

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
1	6130-01-478-7796	ADAPTER, BATTERY CHARGER (Pilothouse) (62526) BC124	128	EA	1
2	6150-01-431-2451	ADAPTER, POWER (Radio Equipment Rack #1) (0VJU1) WKW-5	128	EA	2
3		AIR CONDITIONING PLANT (AMS-#2) (10855) 90DF400004-1	128	EA	1
4		AN/PSN INTERFACE & SWITCHBOX (Pilothouse, Over Chart Table) (0JDM6) 9801	128	EA	1
5		ANTENNA (Top of Pilothouse, Starboard Aft) (00853) TT-3008C	128	EA	1
6		ANTENNA, DGPS, SMART MX421B-10 (Mast, Port and Starboard) (52315) 17011	128	EA	2
7		ANTENNA, GPS (Mast, Aft) (0UVG2) AT575-32W-TNCF-000-RG-36-NM	128	EA	1
8		ANTENNA, HF (Top Of STBD Smoke Stack) (23657) 4201N	128	EA	1



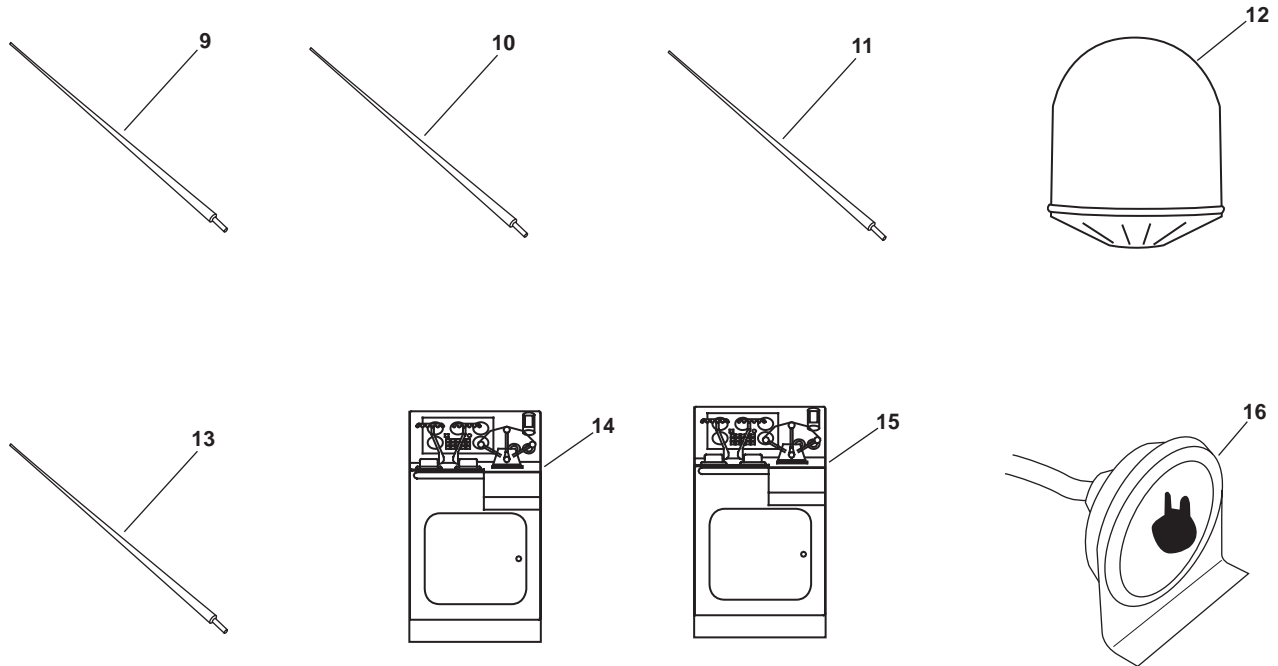


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
9	5985-01-471-7205	ANTENNA, MF/HF (Top of Port Smoke Stack) (23657) STYLE 5300	128	EA	1
10	5958-01-514-2271	ANTENNA, MULTIMISSIION TACTICAL (Top Of Pilothouse, Port and Starboard) (23657) SF3512/VRC	128	EA	2
11	5985-01-052-1272	ANTENNA, SSB WHIP (Top of Pilothouse, Port and Starboard) (23657) 390-1	128	EA	2
12		ANTENNA, TACSAT (SOTM) (Mast, Port and Starboard) (63563) GV-2432	128	EA	2
13	5985-01-524-5154	ANTENNA, VHF (Top of Pilothouse, Starboard Fwd, and Port Aft) (23657) 5225-XT	128	EA	2
14		AUTOPILOT 2035 OPERATOR UNIT (Pilothouse-Compilot 20 Steering Stand) (52315) 102-885SA004	128	EA	1
15		AUTOPILOT CONNECTION UNIT (Pilothouse-Compilot 20 Steering Stand) (52315) 102885SA004	128	EA	1
16		BAROMETRIC PRESSURE SENSOR (Mast, Port Side) (52315) 2397	128	EA	1

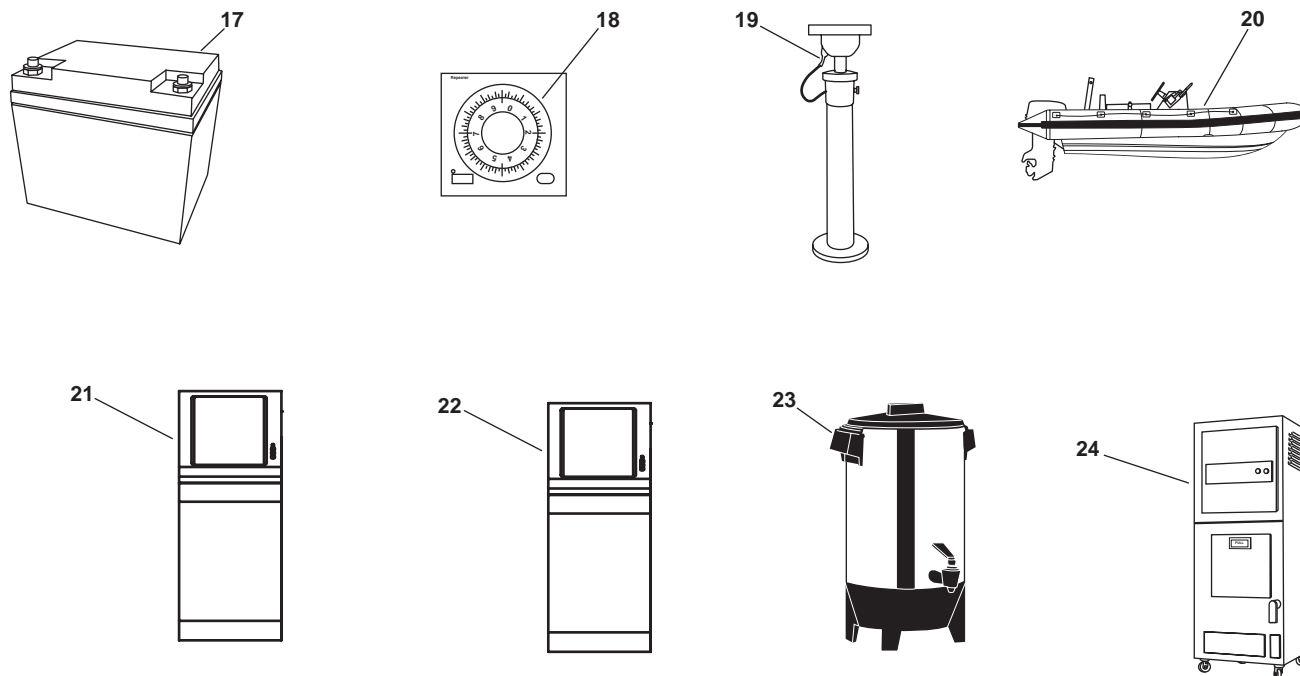


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
17	6140-00-190-9828	BATTERIES, MARINE, 12V (Fan Room) (2U455) 8D	128	EA	2
18		BEARING REPEATER (Pilothouse FWD Overhead Console Port) (52315) 133-407NG001	128	EA	2
19		BEARING SIGHT (Pilothouse, Mounted On Peloris Stand) (52315) 143-024	128	EA	1
20	1940-01-505-1621	BOAT, RIGID INFLATABLE (01 Deck, AFT) (34712) E34298	128	EA	1
21		C-21 ECDIS W/CONSOLE (Pilothouse Next To Chart Table) (52315) 950-001.NG002	128	EA	1
22		C-29 ECDIS W/CONSOLE (Pilothouse On STBD Side) (52315) 950-002.NG001	128	EA	1
23	7310-00-144-4707	COFFEE MAKER, PERCOLATOR, 115V, 60HZ, ALUMINUM (Crews Mess) (58536) A50354-II-30	128	EA	3
24	4540-01-344-1508	COMPACTOR, TRASH, INDUSTRIAL (Galley) (53820) 1800SS	128	EA	1

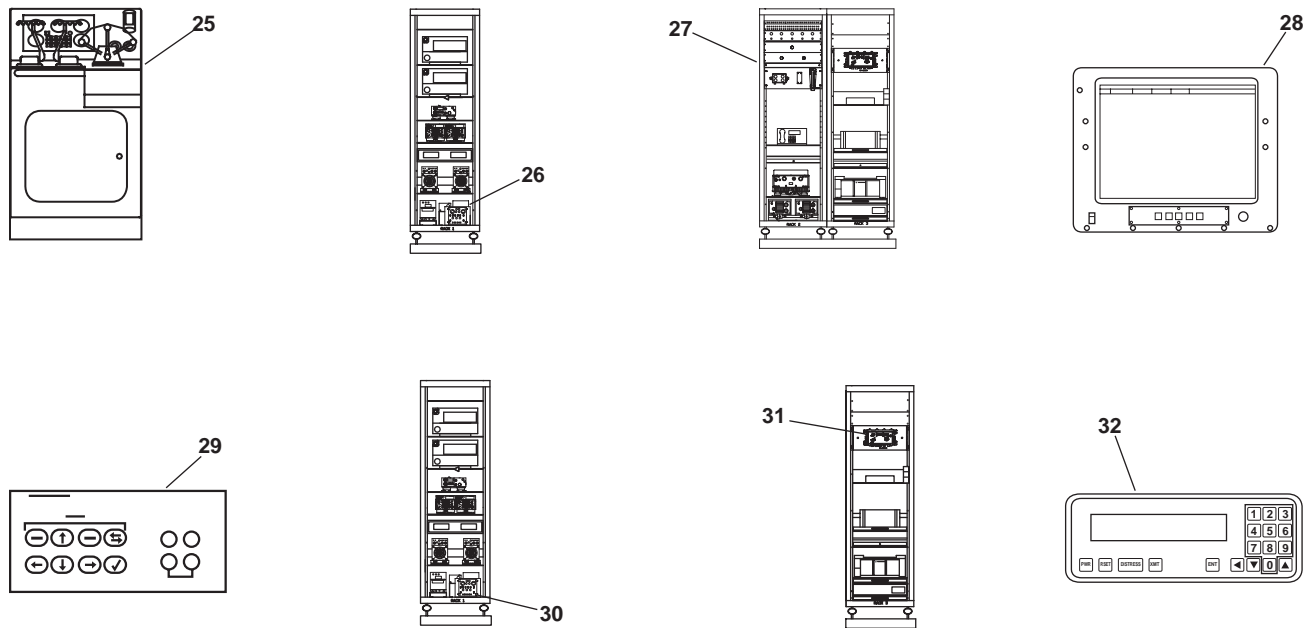


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
25		COMPILOT STEERING STAND (Pilothouse, FWD Center) (52315) 106-085.NG002	128	EA	1
26		COMPUTER, IFF (Radio Equipment Rack #1) (80058) KIT-1C/TSEC APX82	128	EA	1
27		COMPUTER, RACK MOUNTED (Radio Room, Equipment Rack 2&3) (0JDM6) 105-000-1U-1	128	EA	2
28		CONNING DISPLAY, 15" TFT (Pilothouse, FWD, STBD Side) (52315) 16072 (L1162)	128	EA	1
29		CONTROL PANEL, NAOUTOCONNING (Pilothouse, FWD, STBD Side) (52315) 136 121NG001	128	EA	1
30		CONTROL RESPONDER (Radio Equipment Rack #1) (80058) C-6280A(P) / APX, GFE	128	EA	1
31		CONTROL, INDICATOR (Radio Equipment Rack #3) (26512) CD-82/VRC	128	EA	1
32		CONTROLLER, DSC (Pilothouse) (0E8U6) SEA7000	128	EA	1

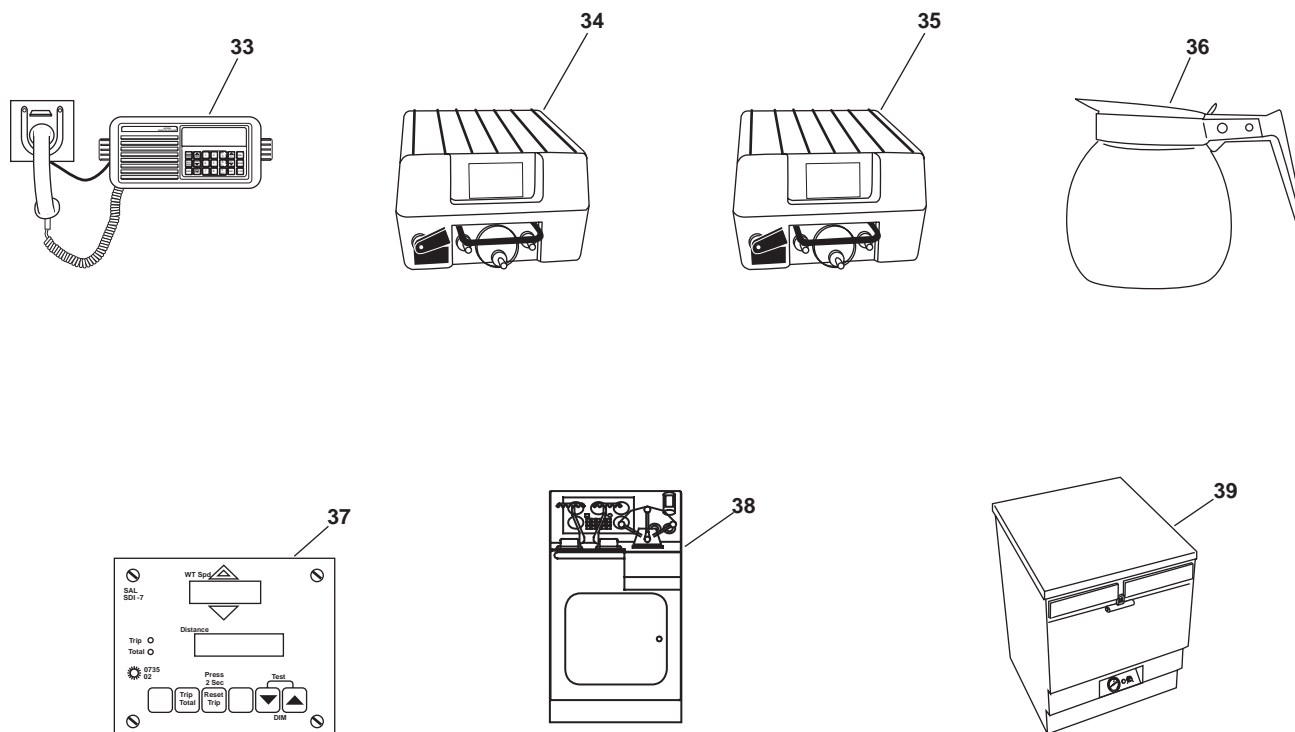


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
33		CONTROLLER, MF/HF (Pilothouse) (0E8U6) SEA 3300	128	EA	1
34	5985-01-459-5388	COUPLER, ANTENNA, HF (Inside Top Of STBD Smoke Stack, STBD Bulkhead) (14304) RF-382A-15	128	EA	1
35	5985-01-471-0271	COUPLER, ANTENNA, MF/HF (Inside Top Of Port Stack) (0E8U6) 1630	128	EA	1
36		DECANTER, COFFEE (Pilothouse) (25628) 06026.0000	128	EA	2
37		DIGITAL TRUE/REL INDICATOR F. SAL-RI (SPEED LOG) (Pilothouse, FWD, Port, Overhead) (52315) SAL-SD1-7	128	EA	1
38		DIMMING MOUNTING SET (Pilothouse, FWD, Center Compilot 20 Steering Stand) (52315) 148-367	128	EA	1
39	7320-01-234-2145	DISHWASHING MACHINE, COMMERCIAL (Galley) (1ST47) JPX300H	128	EA	1

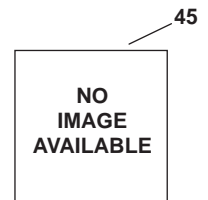
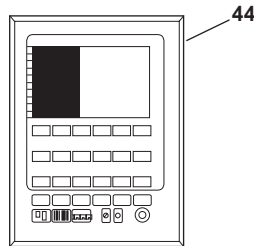
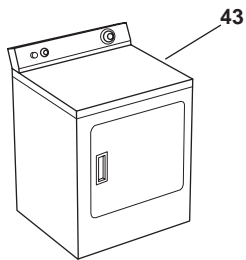
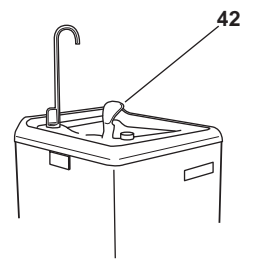
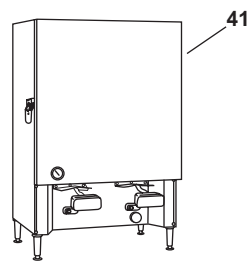
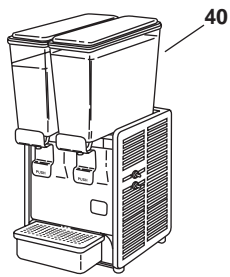


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
40	7310-01-315-8423	DISPENSER, BEVERAGE, MECHANICALLY COOLED (Mess/Recreation Space) (02066) D25-4	128	EA	1
41	7310-00-345-9903	DISPENSER, BULK MILK, MECHANICALLY COOLED (Mess/Recreation Space) (28223) BMD-3	128	EA	1
42	4110-00-782-5125	DISPENSER, DRINKING WATER, MECHANICAL (Crew's Mess, 01 Level P-Way) (80244) 4110-00-782-5125	128	EA	5
43		DRYER, AUTOMATIC (Laundry Space) (53800) 110.86860100	128	EA	1
44		ECHO SOUNDER DISPLAY/ OPERATOR UNIT (Pilothouse, FWD, Overhead) (52315) GDS 101 RM	128	EA	1
45		ELECTRONICS CONTROL UNIT (Pilothouse) (52315) GY01U01A007	128	EA	1

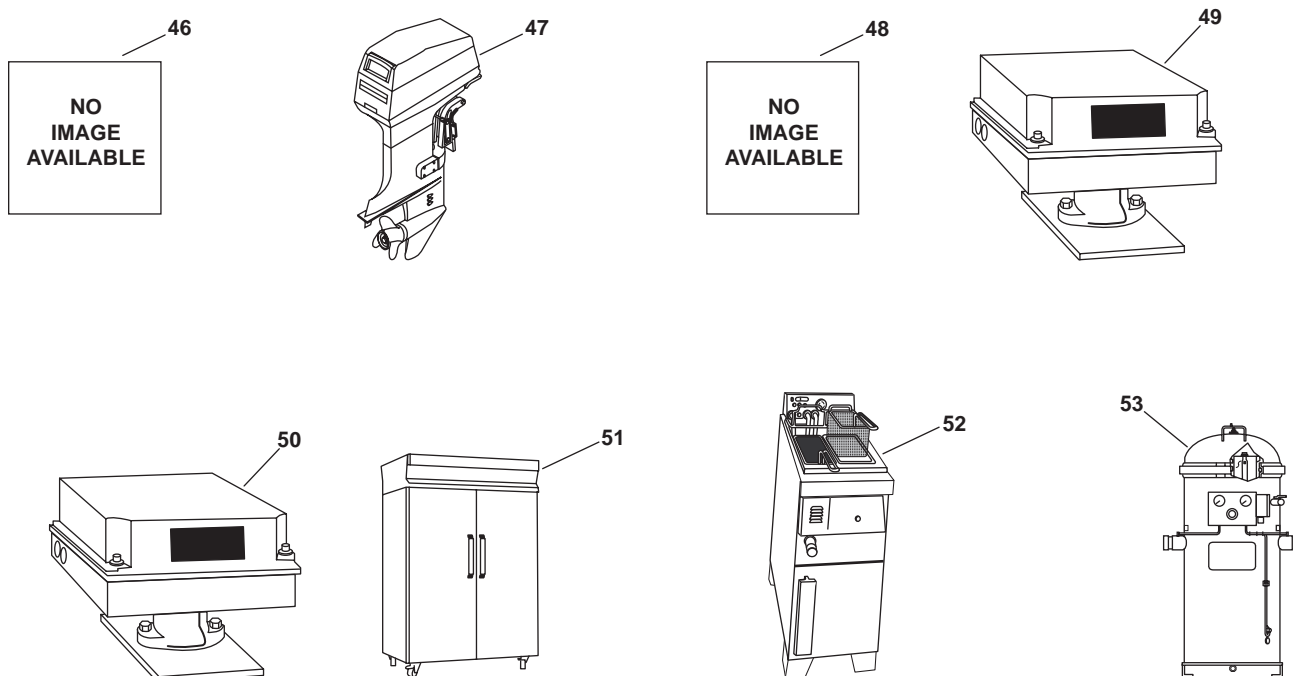


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
46	2805-01-505-1613	ELECTRONICS UNIT, NAOUTOCONNING (Pilothouse, FWD, Center) (52315) PC03-S010035	128	EA	1
47		ENGINE, GASOLINE (Boat, Rigid, Inflatable) (80256) MODEL 70	128	EA	1
48 49		INTENTIONALLY LEFT BLANK FEEDBACK UNIT (Steering Gear Locker) (52315) 101-528 NG024E00	128	EA	1
50	7310-01-421-8887	FEEDBACK UNIT (Steering Gear Locker) (52315) 101-528 NG027 EO2	128	EA	2
51		FREEZER (Galley) (16599) FV20	128	EA	1
52		FRYER, DEEP FAT (Galley) (34931) F-28M NSU	128	EA	1
53		FUEL OIL FILTER/WATER SEPARATOR (Engine Room, Starboard, AFT) (55752) 800D-20	128	EA	1

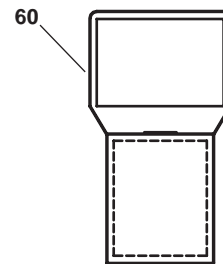
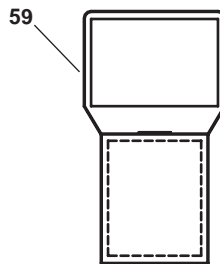
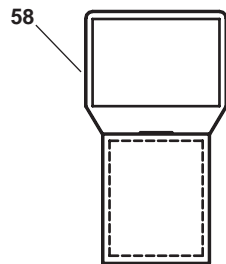
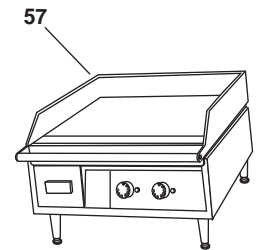
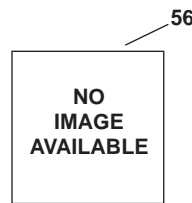
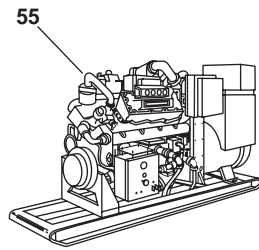
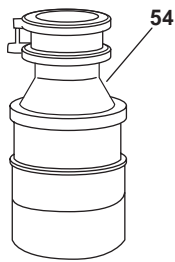


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
54	4540-01-418-4142	GARBAGE DISPOSAL MACHINE, COMMERCIAL (Galley Sink) (28873) FD2-75	128	EA	1
55	6115-01-356-9868	GENERATOR SET, DIESEL ENGINE (Eng. Room, Port & STBD, FWD Of Propulsion Engines) (11083) 4W9129	128	EA	2
56		GILL PRESSURE PORT (Mast) (52315) 61002	128	EA	1
57	7310-01-104-0920	GRIDDLE, SELF HEATING (Galley) (34931) LG-36M-1	128	EA	1
58		GYRO COMPASS STD-20 (Pilothouse, AFT Of Radio Room Stairs) (52315) 110-222 SA003	128	EA	1
59		GYRO DISTRIBUTION UNIT (Pilothouse, AFT Of Radio Room Stairs) (52315) 110-224NG001-E02	128	EA	1
60		GYROSPHERE (Pilothouse, AFT Of Radio Room Stairs) (52315) 111-006.E01	128	EA	1

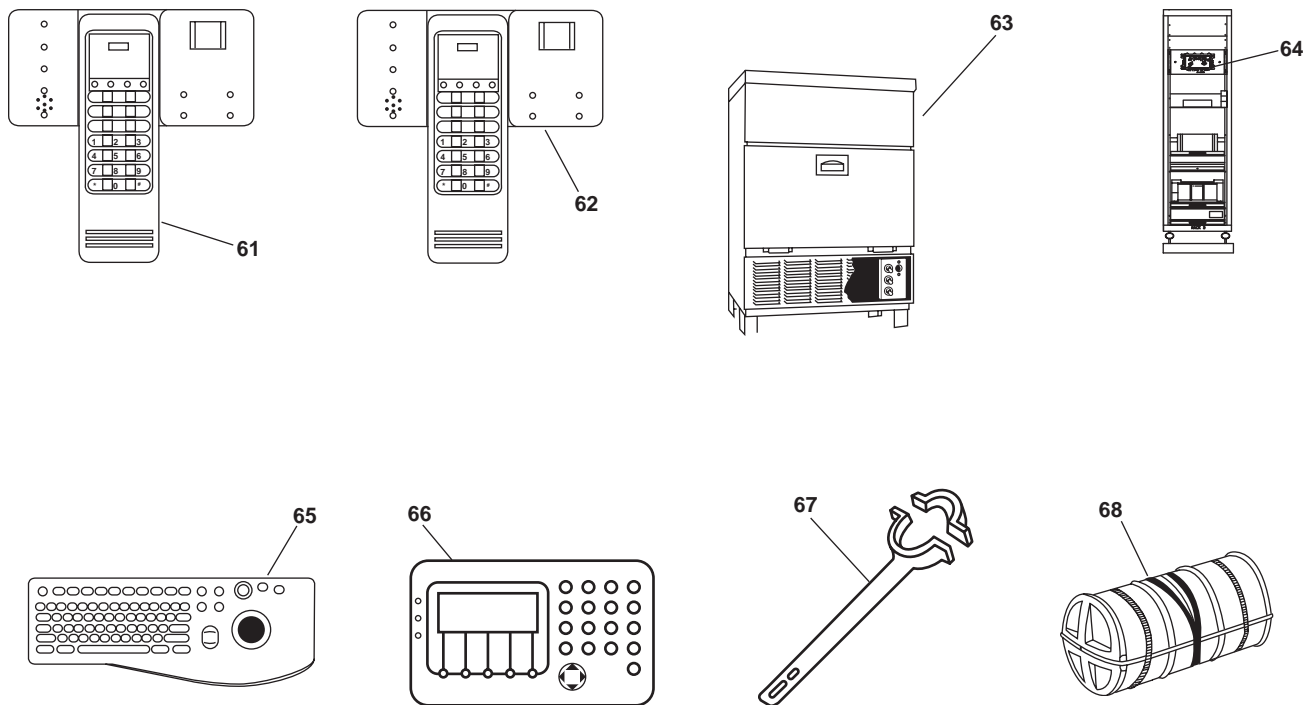


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
61	5895-01-382-3220	HAND SET (Radio Equipment Rack #3) (00853) TT-3620F	128	EA	1
62		HANDSET CRADLE (Radio Equipment Rack #3) (00853) TT-3622B	128	EA	1
63		ICE MAKER (Mess/Recreation Area) (61633) GS6A	128	EA	1
64		INTERFACE UNIT, COMMUNICATIONS EQUIPMENT RIT (Radio Equipment Rack #3) (80063) A3205749	128	EA	2
65		KEYBOARD, RACK MOUNTED, 1-U (Radio Equipment Rack #2 and #3) (0JDM6) 105-000-1U-2	128	EA	2
66		LEICA HEAD MX420 (Pilothouse Above Chart Table) (52315) 9525 200 78000	128	EA	2
67		LEVER DRIVE (Steering Gear Locker) (52315) 148-442	128	EA	2
68		LIFE RAFT, INFLATABLE MK7 (Fitted) (074V1) 00013592	128	EA	2



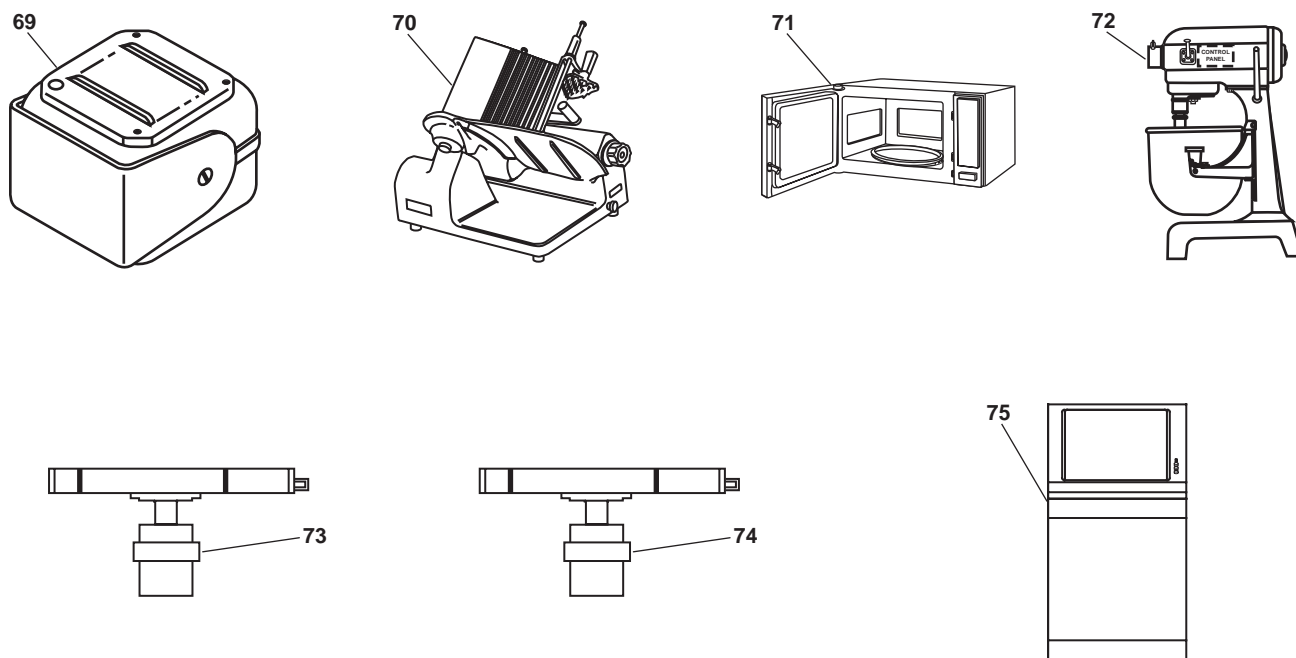


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
69	5965-01-408-5990	LOUDSPEAKER ASSEMBLY (Radio Equipment Rack #2 & Pilothouse VIC Station) (94990) PTSH-104	128	EA	2
70	7320-01-342-0696	MEAT SLICING MACHINE, ELECTRIC (Galley) (28873) 2612 115V	128	EA	1
71		MICROWAVE OVEN (Galley/Mess) (OBDN7) R-5K81	128	EA	2
72	7320-00-894-6095	MIXING MACHINE, FOOD, ELECTRIC (Galley) (28873) A200	128	EA	1
73		MK2 25KW S-BAND PEDESTAL (TRANSMITTER) (Top Of Pilothouse) (52315) 1054/M28349	128	EA	1
74		MK2 30KW X-BAND PEDESTAL (TRANSMITTER) (Top Of Pilothouse) (52315) 1107/M28347	128	EA	1
75		MK2 ARPA W/DECK STAND (S-BAND CONSOLE) (Pilothouse STBD Side) (52315) 900 040.NG001 E01	128	EA	1

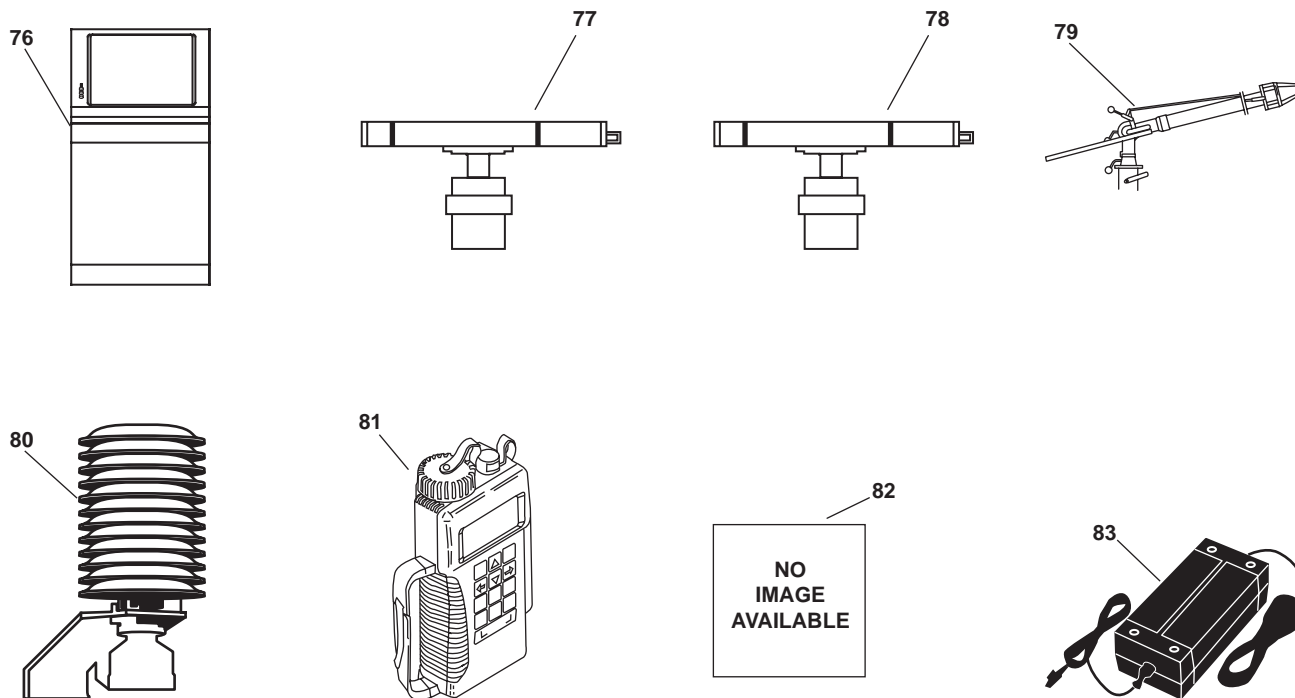


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
76	5825-01-395-3513	MK2 ARPA W/DECK STAND (X-BAND CONSOLE) (Pilothouse Port Side) (52315) 900 040.NG001 E01	128	EA	1
77		MK2 S-BAND 12FT ARRAY (Top Of Pilothouse) (52315) G 623924-1	128	EA	1
78		MK2 X-BAND 7 FT ARRAY (Top Of Pilothouse) (52315) G623921-1	128	EA	1
79		MONITOR, FIRE (Top Of Pilothouse) (0BJH3) IM/HR-376	128	EA	1
80		MULTIPLATE RADIATION SHIELD (Mast) (52315) 41003P	128	EA	3
81		NAVIGATION SET, SATELLITE (Above Chart Table) (13499) 822-0077-103	128	EA	1
82		OPERATOR UNIT (Pilothouse) (52315) 130-601NG010	128	EA	1
83		POWER SUPPLY (Pilothouse) (62526) BC-124	128	EA	1

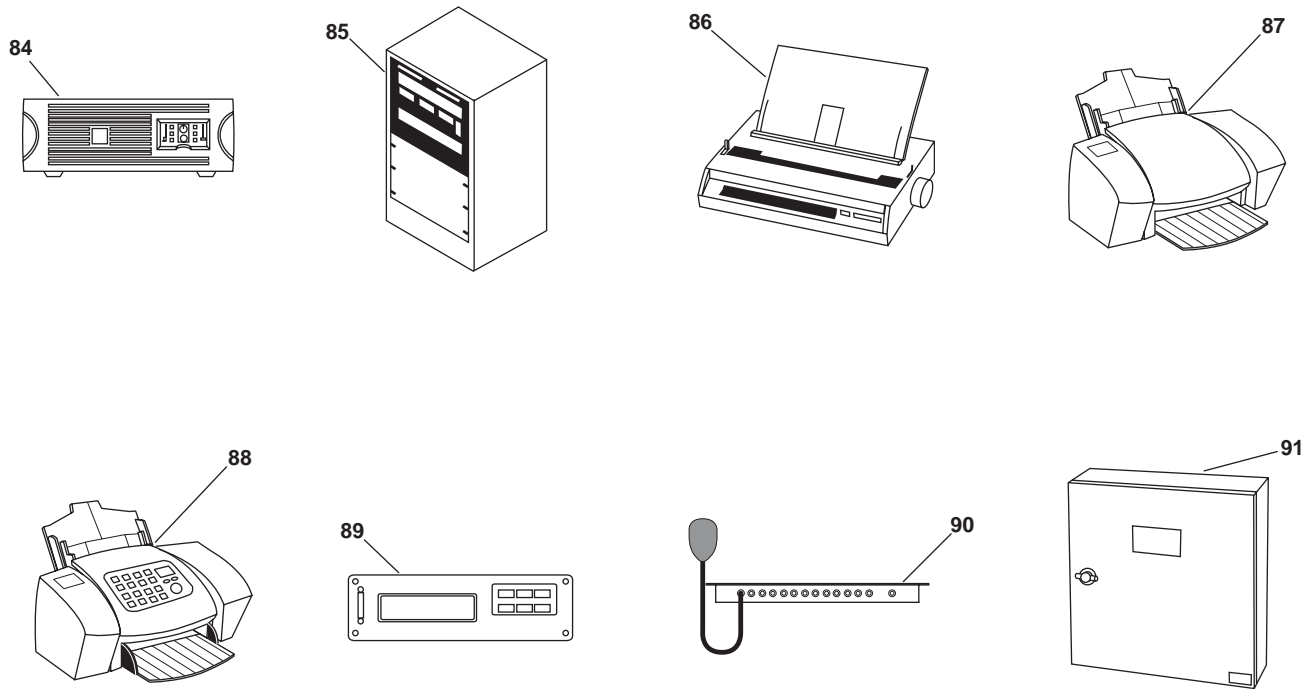


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
84	7025-01-341-5929	POWER SUPPLY, 115-24V (Pilothouse, GMDSS Equipment) (62028) 115-24-35CD	128	EA	1
85		POWER SUPPLY, 300 AMP (Fan Room) (58424) 23-200100	128	EA	1
86		PRINTER, AUTOMATIC DATA (Pilothouse GMDSS Equipment) (25405) ML184 TURBO	128	EA	2
87		PRINTER, COLOR (Near Chart Table) (0JDM6) P/N UNKNOWN	128	EA	1
88	5830-01-412-2012	PRINTER/FAX/SCANNER HP (Radio Equipment Rack #3) (1RCQ5) HP720	128	EA	1
89		PROGRAMMABLE TRANSLATOR (Pilothouse Above Chart Table) (52315) 5722	128	EA	1
90		PUBLIC ADDRESS SET (Pilothouse, FWD, Overhead) (32677) AN/PIQ-5B	128	EA	2
91		R1 SPEED LOG ELECTRONICS UNIT SALR1 (Pilothouse, FWD, Port Console) (52315) 701800D	128	EA	1

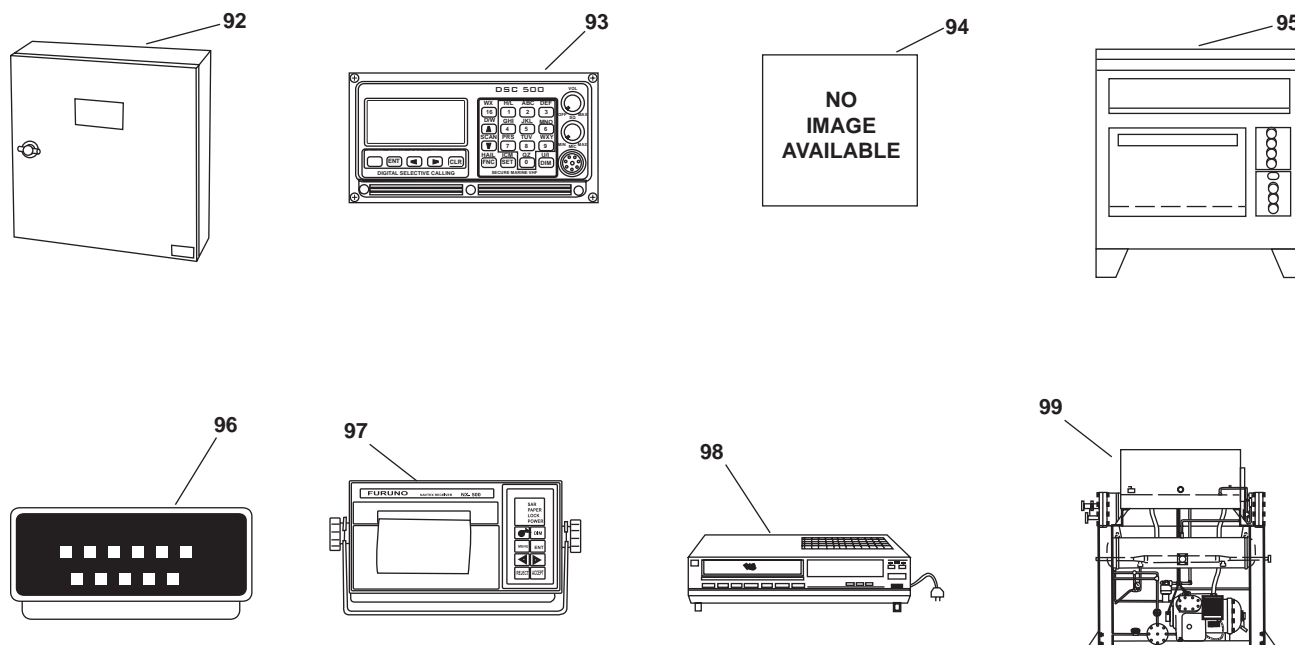


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
92		R1P PULSE BOARD F. SAL R1 LOG (Pilothouse, FWD, Port Console) (52315) 701837C1	128	EA	1
93	5825-01-471-0269	RADIO SET, VHF (Pilothouse, FWD, STBD, Overhead, Above Chart Table) (0WF67) DSC 500	128	EA	2
94		INTENTIONALLY LEFT BLANK			
95	7310-01-316-3984	RANGE, ELECTRIC (Galley) (34931) 32S-1M	128	EA	1
96	7025-01-471-0268	RECEIVER, DIGITAL DATA, MF/HF WATCH (Pilothouse, GMDSS Equipment) (0E8U6) 7001	128	EA	1
97		RECEIVER, RADIO, NAVTEX (Pilothouse, GMDSS Equipment) (50622) NX-500	128	EA	1
98		RECORDER, VIDEO CASSETTE (Mess/Recreation Space) (0BDN7) VC-A105U	128	EA	1
99		REFRIGERATION MACHINE (AMS-#2) (10855) 90DF400014	128	EA	1

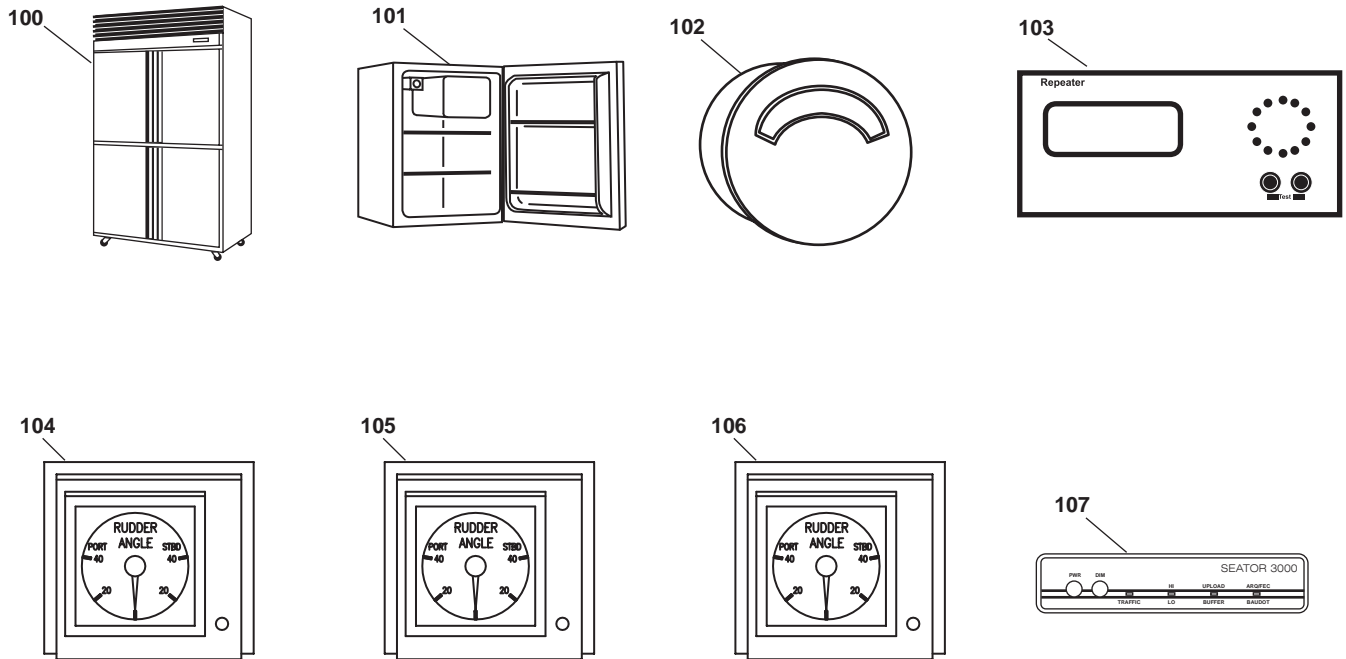


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
100		REFRIGERATOR (Galley) (16599) CV20	128	EA	1
101		REFRIGERATOR, 2.1 CU FT CAP (Staterooms) (2B427) SSD2CK	128	EA	5
102		REPEATER COMPASS (AFT Steering) (52315) 133-556NG003	128	EA	1
103		REPEATER COMPASS, DIGITAL (Pilothouse, FWD, Port, Overhead) (52315) 133-811NG010	128	EA	1
104		RUDDER ANGLE INDICATOR (AFT Steering) (52315) 136-045	128	EA	1
105		RUDDER ANGLE INDICATOR (Bridge Wings) (52315) 136-053	128	EA	2
106		RUDDER ANGLE INDICATOR (Pilothouse, FWD, Port) (52315) 136-062NG001	128	EA	1
107		SEATOR MODEM (Pilothouse, GMDSS Equipment) (0E8U6) SEA 3000	128	EA	1

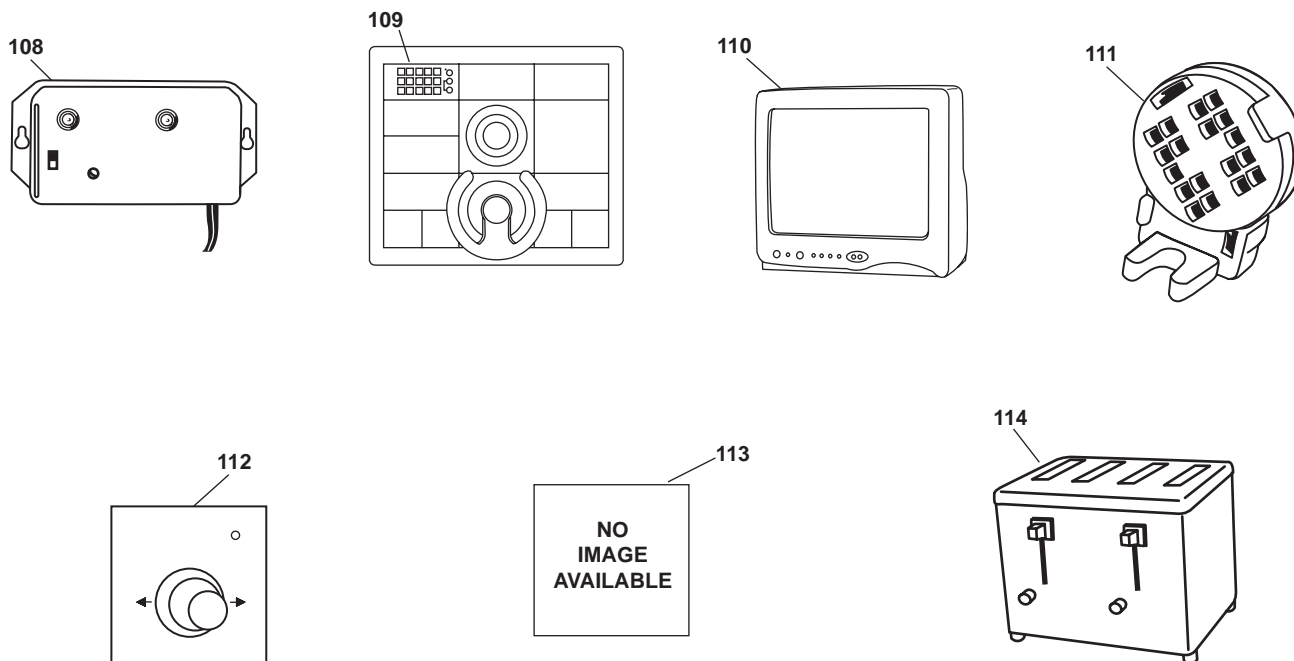


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR	
108	7310-00-272-7891	SIGNAL BOOSTER (Pilothouse) (52315) NB 03-896	128	EA	2	
109		STEERING FAILURE ALARM (Pilothouse, FWD, Center, Compilot 20 Steering Stand) (52315) 135-081SA200	128	EA	1	
110		TELEVISION, COLOR, 21" (Mess/Recreation Space) (0BDN7) 20RV79	128	EA	1	
111		TEMP/RH SENSOR (On Mast) (52315) 41372VC	128	EA	1	
112		TILLER NFL (Pilothouse, FWD, Center, Compilot 20 Steering Stand) (52315) 105-107 NG010	128	EA	3	
113		INTENTIONALLY LEFT BLANK				
114		TOASTER, ELECTRICAL, AUTOMATIC, 4 SLICE (Galley) (78770) 1D2(115V)W-T-550	128	EA	2	

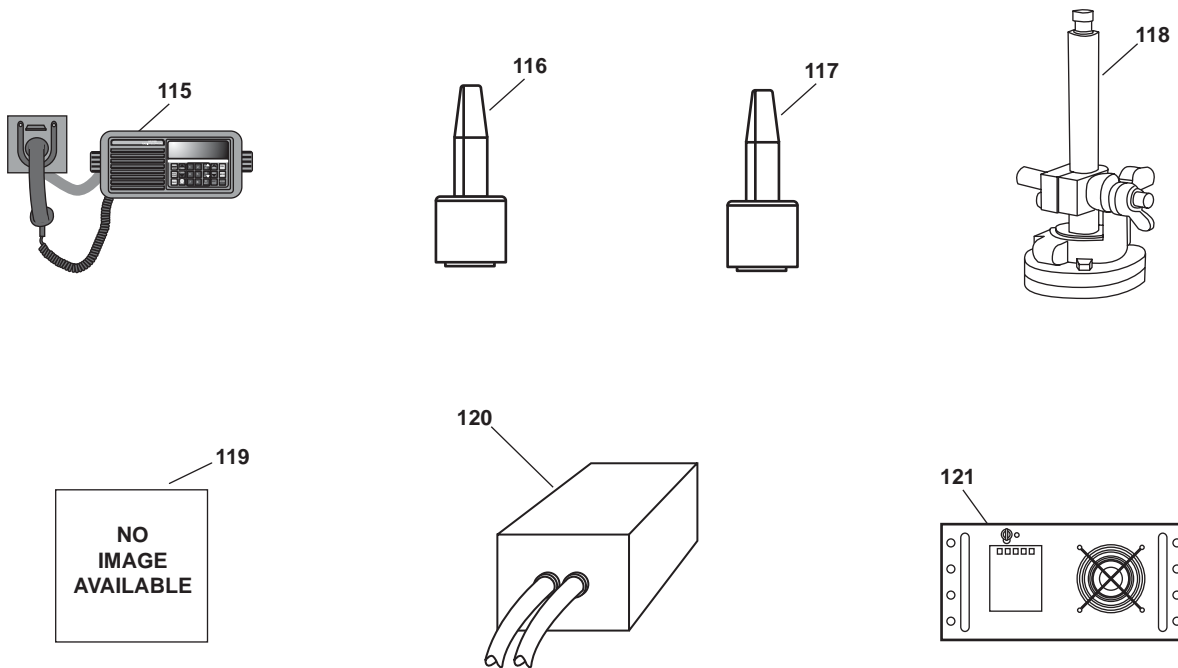


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
115		TRANSCEIVER, MF/HF (Pilothouse, GMDSS Equipment) (0E8U6) SEA 3301	128	EA	1
116		TRANSDUCER TANK FOR GDS 101 (Pilothouse) (52315) ETNST	128	EA	1
117		TRANSDUCER, 200 KHZ (Hull Mounted Below EOS) (52315) ETN200FX	128	EA	1
118		TRANSDUCER, SALR1 SPEED LOG (Transducer Well Under EOS) (52315) 71-705050-30	128	EA	1
119		TRANSFORMER BOX (Pilothouse, Steering Stand) (52315) 116-087 NG002	128	EA	2
120		TRANSFORMER, ACME 15KVA 440/220 (Fan Room) (5V049) T-253571-3S	128	EA	1
121		UNINTERRUPTED POWER SUPPLY (UPS) (Entrance Way To Radio Room) (52315) N014073	128	EA	2

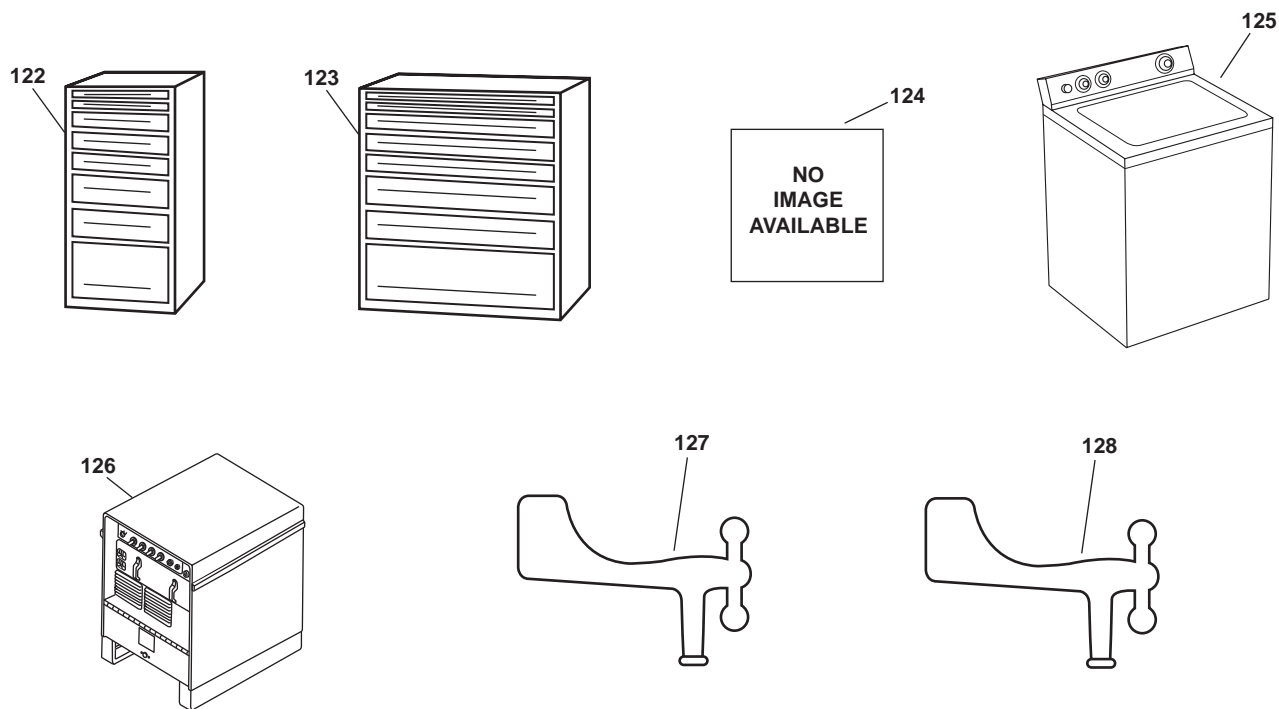
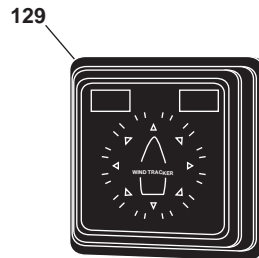


Table 1. Components of End Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
122	3431-01-357-9949	VIDMAR CABINET, 0340 HOUSING WITH 9 DRAWERS, DRAWER ACCESSORIES AND LOCKING DEVICE (34004) SEP3155AL	128	EA	6
123		VIDMAR CABINET, HOUSING-LW, 0340 (30"W X 21 3/8"D X 59"H) (34004) LW0340	128	EA	9
124		VOLTAGE INPUT MODULE (Pilothouse, Weather Station) (52315) 17023	128	EA	3
125		WASHING MACHINE, ELECTRIC, HEAVY DUTY (Laundry Space) (53800) 110 8180100	128	EA	1
126		WELDING MACHINE, ARC (Work Shop) (40608) SYNCROWAVE 351 P/N 903219	128	EA	1
127		WIND LINE DRIVER (Mast) (52315) 05631BM	128	EA	1
128		WIND MONITOR (Mast) (52315) 57062	128	EA	1





**Table 1. Components of End Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
129		WIND TRACKER DISPLAY (Pilothouse Above Chart Table) (52315) 11029	128	EA	1

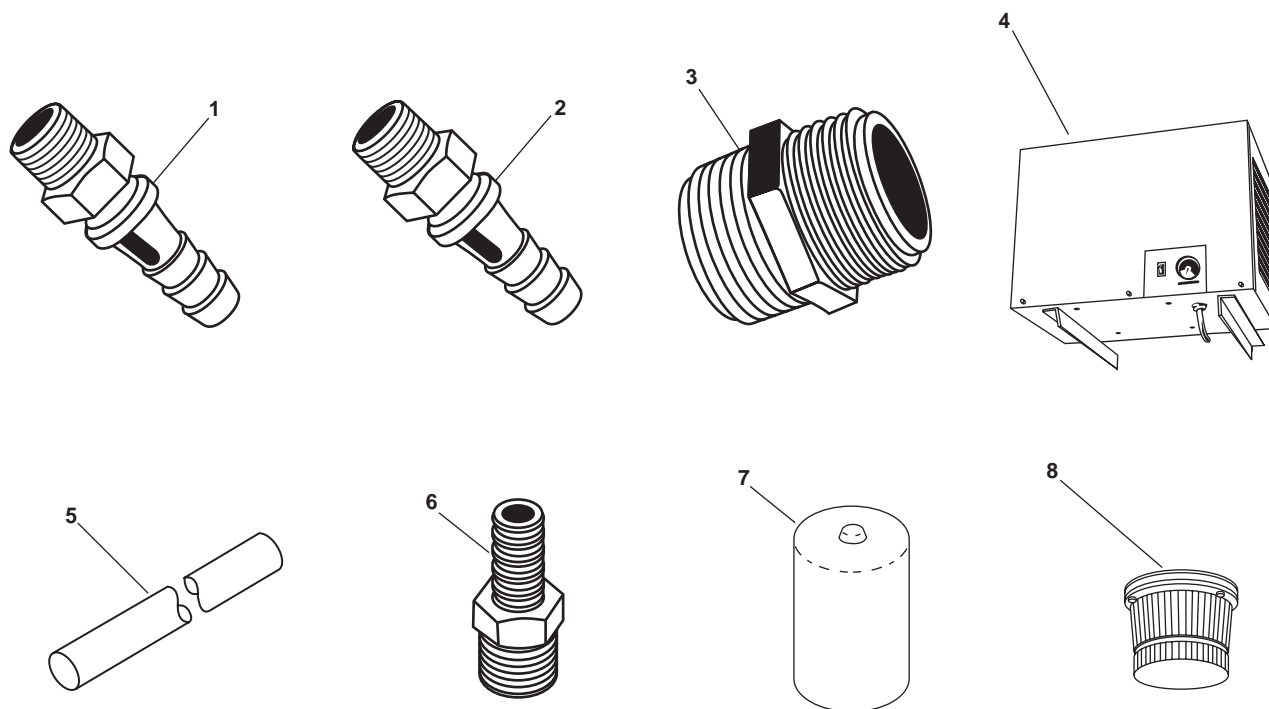


Table 2. On Board Spares List

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
1	4730-01-322-9129	ADAPTER, STRAIGHT, PIPE TO BOSS (Vestibule Vidmar Cabinets) (93061) P6MC4	128	EA	1
2	4730-01-130-5438	ADAPTER, STRAIGHT, PIPE TO HOSE (Vestibule Vidmar Cabinets) (72661) TN-66	128	EA	4
3	4730-01-527-5883	ADAPTER, STRAIGHT, PIPE TO TUBE (Vestibule Vidmar Cabinets) (61424) P6MC8	128	EA	1
4	4730-01-248-7942	AIR DRIER AND COOLER (Bow Thruster Port S1) (0A0L9) 060081120	128	EA	1
5	5342-01-342-0466	ANODE, CORROSION PREVENTIVE (Bosun's Locker) (70774) A10356	128	EA	8
6	4730-01-528-6811	BARB, NYLON (Vestibule Vidmar Cabinets) (05MH3) TN 64	128	EA	4
7	6135-01-343-1592	BATTERY, NONRECHARGEABLE (Machine Shop D2) (55841) D100AB10	128	EA	1
8	6210-01-529-1166	BEACON, WARNING, RED (Bosun's Locker) (1F889) 89SMSTRR-AQ	128	EA	1

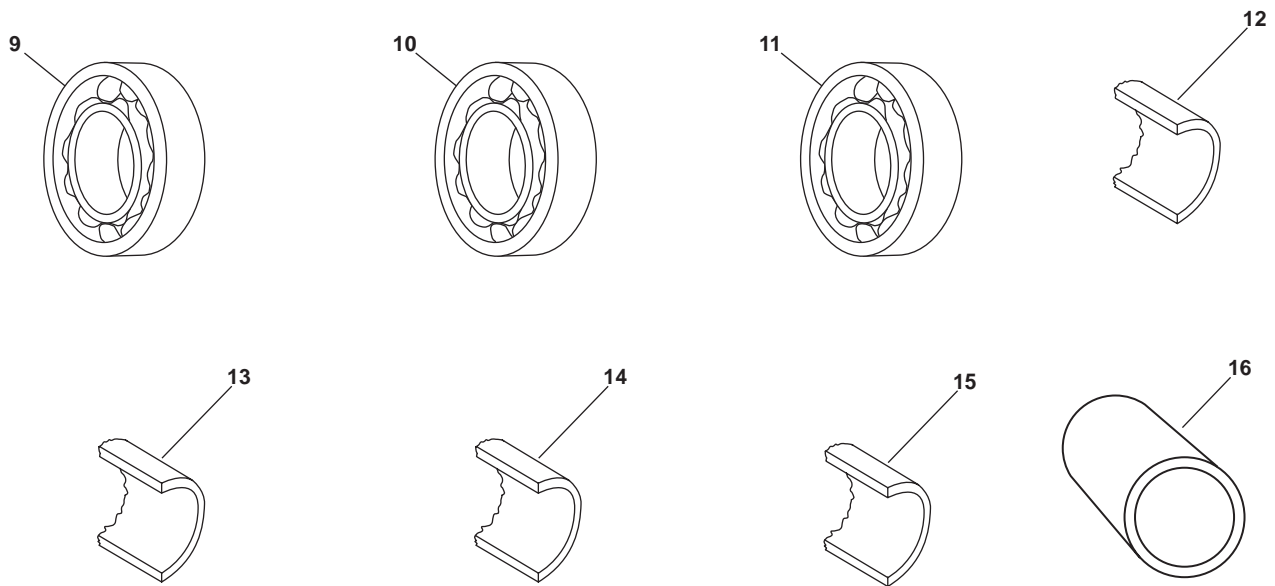


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
9	3110-01-144-1557	BEARING, BALL, ANNULAR (Bow Thruster Port S2) (07524) 903405	128	EA	2
10	3110-00-555-5362	BEARING, BALL, ANNULAR (Machine Shop D9) (52676) 3303ATN9	128	EA	1
11	3110-01-339-9525	BEARING, BALL, ANNULAR (Machine Shop D9) (04579) 068-1905-647	128	EA	1
12	3120-00-795-4915	BEARING, HALF DRIVE (Bow Thruster Port S2) (5F475) GB-8237900	128	EA	1
13	3120-00-363-5831	BEARING, HALF SLEEVE (Bow Thruster Port S2) (5F475) GB-8071176	128	EA	24
14	3120-00-477-9914	BEARING, HALF SLEEVE (Bow Thruster Port S2) (72915) 8261195	128	EA	1
15	3120-00-795-4916	BEARING, HALF SLEEVE (Bow Thruster Port S3) (5F475) GB-8253825	128	EA	1
16	3120-00-168-6358	BEARING, IDLER GEAR (Vestibule Vidmar Cabinets V2) (72915) 8418334	128	EA	1

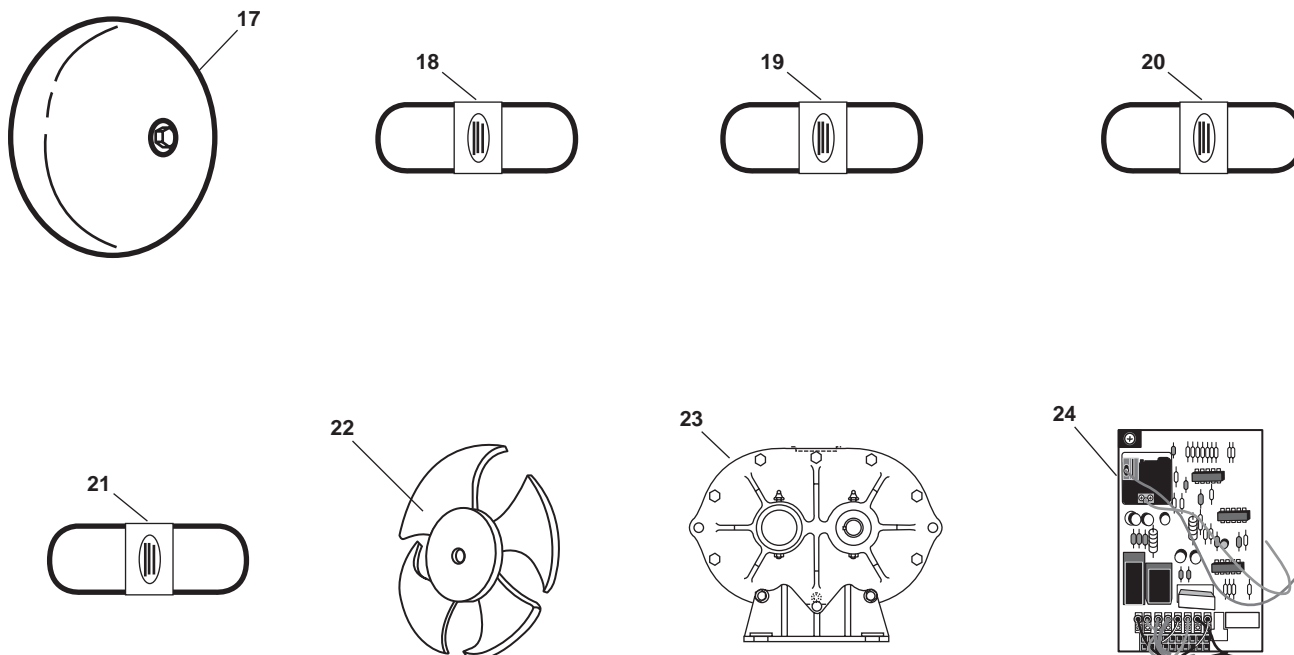


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
17	6350-01-188-0285	BELL, ELECTRICAL (Bosun's Locker) (73274) UATV-6-115VAC	128	EA	1
18	3030-01-339-8132	BELT, "V" (Bow Thruster Port S1) (72915) 9310380	128	EA	1
19	3030-00-529-0346	BELT, DRIVE, BLOWER (Bosun's Locker) (10855) A33	128	EA	1
20	3030-01-310-4414	BELT, V (Bosun's Locker) (49576) 110258B082	128	EA	2
21	3030-01-141-5087	BELT, V (Bosun's Locker) (96046) PE-2151	128	EA	1
22	4140-01-528-8941	BLADE, FAN (Vestibule Vidmar Cabinets) (10855) 38GA5A1201B	128	EA	1
23	4140-01-343-7133	BLOWER, POSITIVE DIS (Bow Thruster STBD S2) (51729) 865-102-020	128	EA	1
24	5998-01-528-8761	BOARD, DEFROST (Vestibule Vidmar Cabinets) (10855) CESO110063-02	128	EA	1

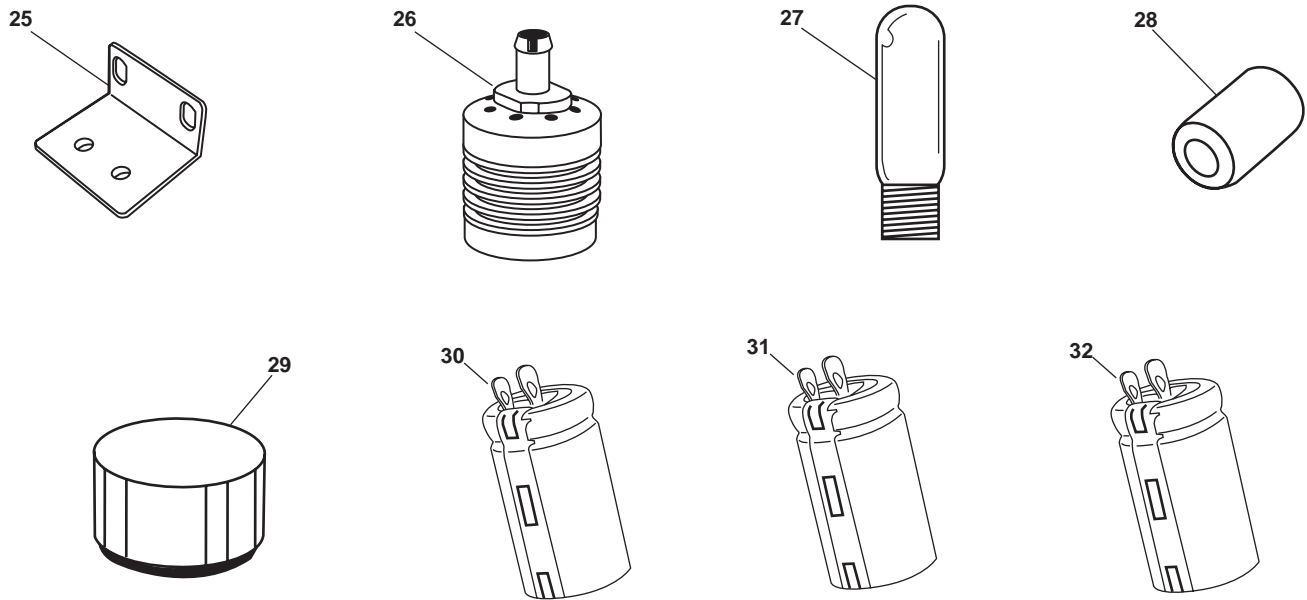


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
25	5340-01-528-8955	BRACKET, MOTOR (Vestibule Vidmar Cabinets) (10855) 38GB5A1105AOZ	128	EA	1
26	4310-01-151-3917	BREATHER (Bosun's Locker) (08832) ABF-3/10	128	EA	1
27	6240-01-370-2518	BULB (FOR NAVIGATION LIGHT TOWING) (Vestibule Vidmar Cabinets) (28763) 4060-0086	128	EA	2
28	4730-01-528-6677	BUSHING (Vestibule Vidmar Cabinets) (05MH3) NRB 3412	128	EA	4
29	5342-01-469-8619	CAP, FILLER OPENING (Vestibule Vidmar Cabinets) (1BZ02) 12180510CO-10	128	EA	1
30	5910-01-395-0109	CAPACITOR (Vestibule Vidmar Cabinets) (10855) P291-1503	128	EA	1
31	5910-01-528-8900	CAPACITOR (Vestibule Vidmar Cabinets) (10855) P291-2503R	128	EA	1
32	5910-01-528-8915	CAPACITOR, MOTOR (Vestibule Vidmar Cabinets) (10855) PCA05AE015A	128	EA	1

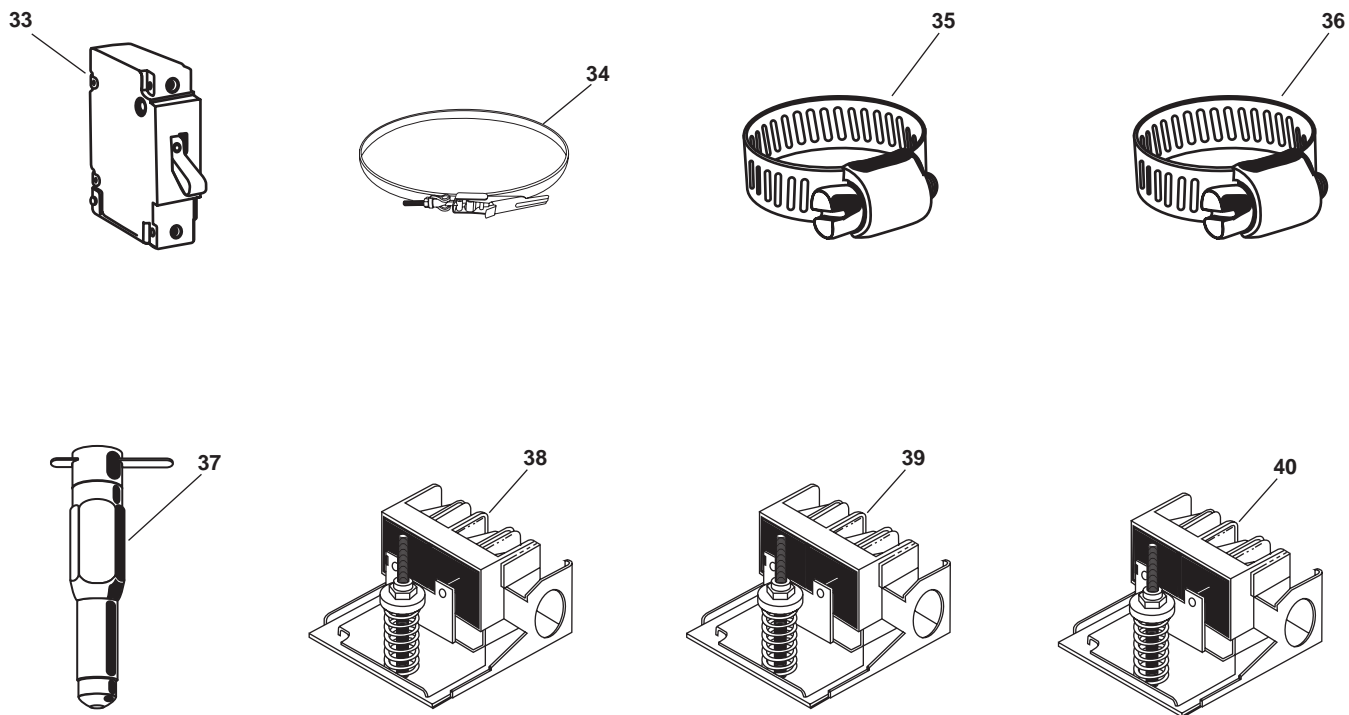


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
33	5925-01-477-6200	CIRCUIT BREAKER (Vestibule Vidmar Cabinets) (10855) HH83ZB001	128	EA	1
34	5340-01-528-6183	CLAMP (Below EOS) (55752) RK 18609	128	EA	1
35	4730-01-528-5811	CLAMP, HOSE, SS #8 (Vestibule Vidmar Cabinets) (05MH3) #8 SSHC	128	EA	10
36		CLAMP, HOSE, SS #12 (Vestibule Vidmar Cabinets) (05MH3) #12 SSHC	128	EA	10
37	4820-01-132-6317	COCK, DRAIN (Bow Thruster STBD S2) (72582) 8924140	128	EA	1
38	5945-01-528-8893	CONTACTOR (Vestibule Vidmar Cabinets) (10855) HAT903CSAC24	128	EA	1
39	5945-01-528-8740	CONTACTOR (Vestibule Vidmar Cabinets) (10855) HN52KC025	128	EA	1
40	5945-01-528-8921	CONTACTOR (Vestibule Vidmar Cabinets) (10855) PCC01GA020A	128	EA	1

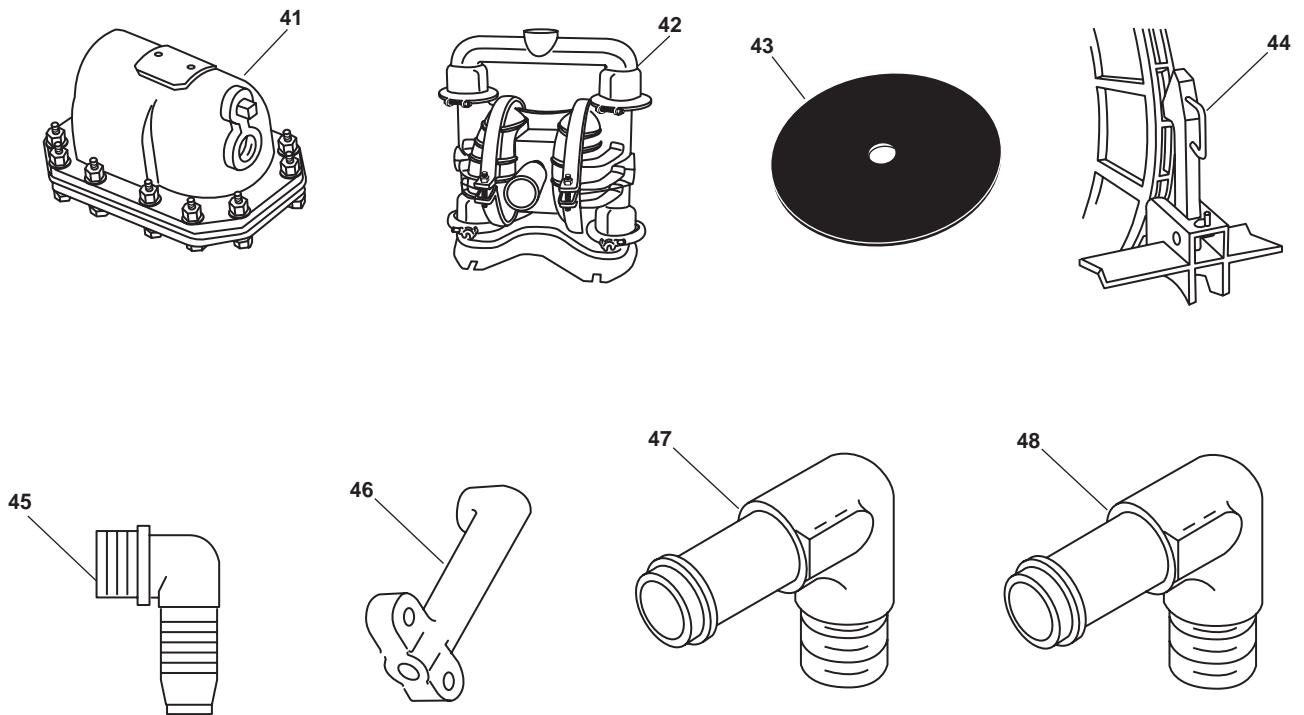


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
41	2930-01-209-5141	COOLER, LUBRICATING (Bow Thruster Compartment) (11083) 3N3270	128	GP	2
42	4310-01-341-0468	DIAPHRAGM, PUMP (Vestibule Vidmar Cabinets D12) (52837) M-4/00-63	128	EA	2
43	5345-00-881-8375	DISK, ABRASIVE (Bow Thruster Port S2) (80204) ANSI B74.18	128	EA	11
44	5342-01-520-9050	DOG, MECHANICAL (Bosun's Locker) (81782) E333-3880	128	EA	2
45	4730-01-528-6634	ELBOW (Vestibule Vidmar Cabinets) (1BZ02) 1317121969	128	EA	2
46	4730-01-322-9131	ELBOW, PIPE TO BOSS (Vestibule Vidmar Cabinets) (93061) P6ME4	128	EA	1
47	4730-01-122-8918	ELBOW, PIPE TO HOSE (Vestibule Vidmar Cabinets) (19139) 538429	128	EA	4
48	4730-00-251-6369	ELBOW, PIPE TO HOSE (Vestibule Vidmar Cabinets) (72661) TLS66	128	EA	4

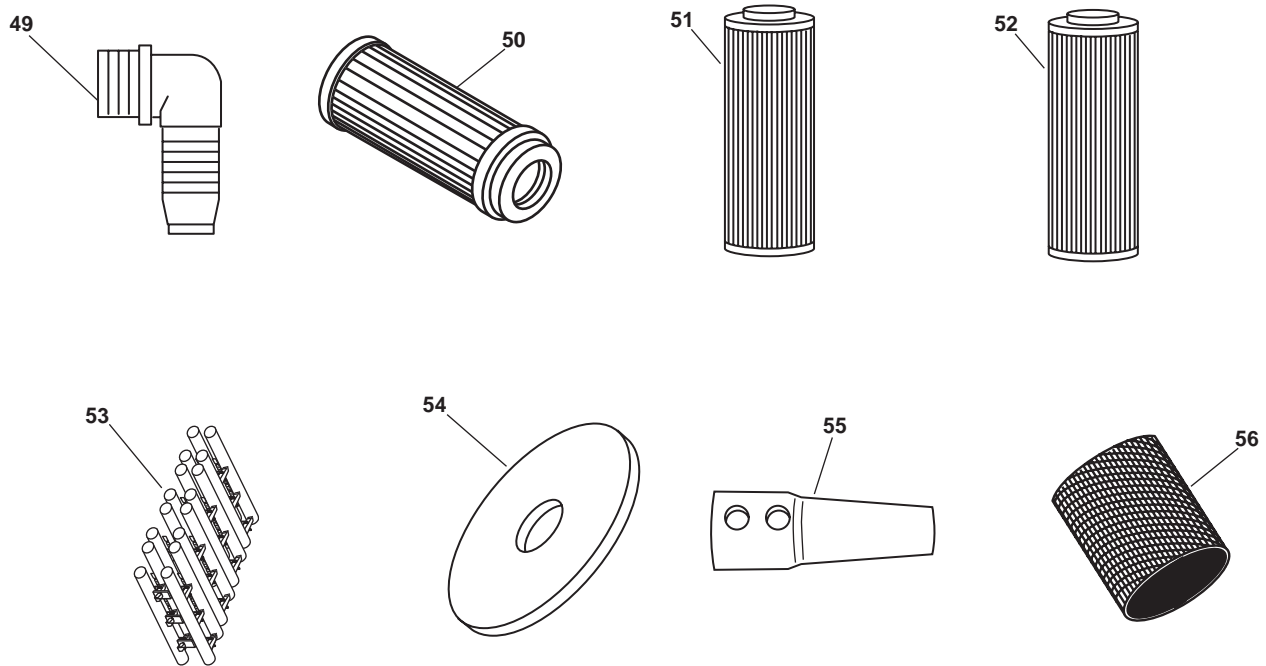


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
49	4730-01-528-5091	ELBOW, TUBE (Vestibule Vidmar Cabinets) (1BZ02) 1317011769	128	EA	2
50	2940-01-342-8735	ELEMENT, FILTER 40W (AMS 1 CAB 2) (05779) 925042	128	EA	2
51	4330-01-026-2936	ELEMENT, FILTER (AMS 1 CAB 2) (08832) BB10	128	EA	2
52	4330-00-947-5807	ELEMENT, FILTER (AMS 1 CAB 2) (53711) 5131-79-2	128	EA	1
53	4520-01-529-1089	ELEMENT, KIT (Vestibule Vidmar Cabinets) MEL50	128	KT	1
54	5330-00-366-3510	FELT, MECHANICAL PRE (Bow Thruster Port S1) (72915) 8055158	128	EA	1
55	4730-01-528-8640	COMPRESSION, TUBE FITTING (Vestibule Vidmar Cabinets) (05MH3) SS-800-SET	128	EA	10
56	4130-01-528-9887	FILTER ELEMENT (Vestibule Vidmar Cabinets) (39428) 2191K54	128	EA	1



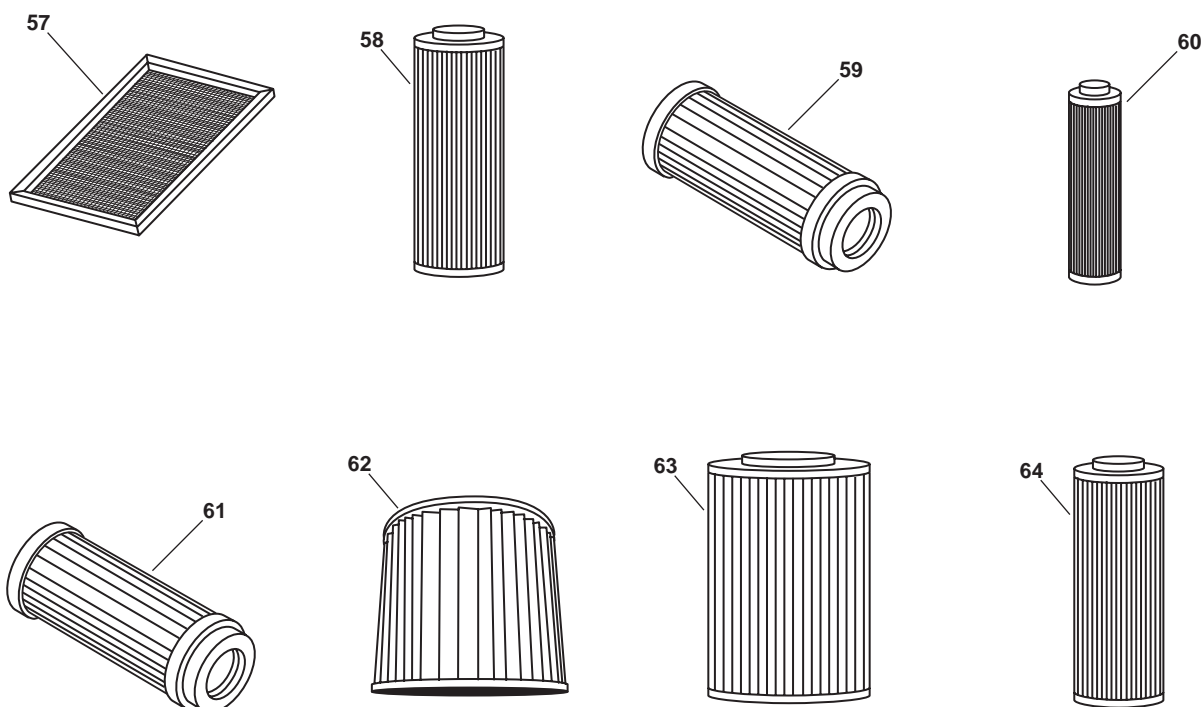
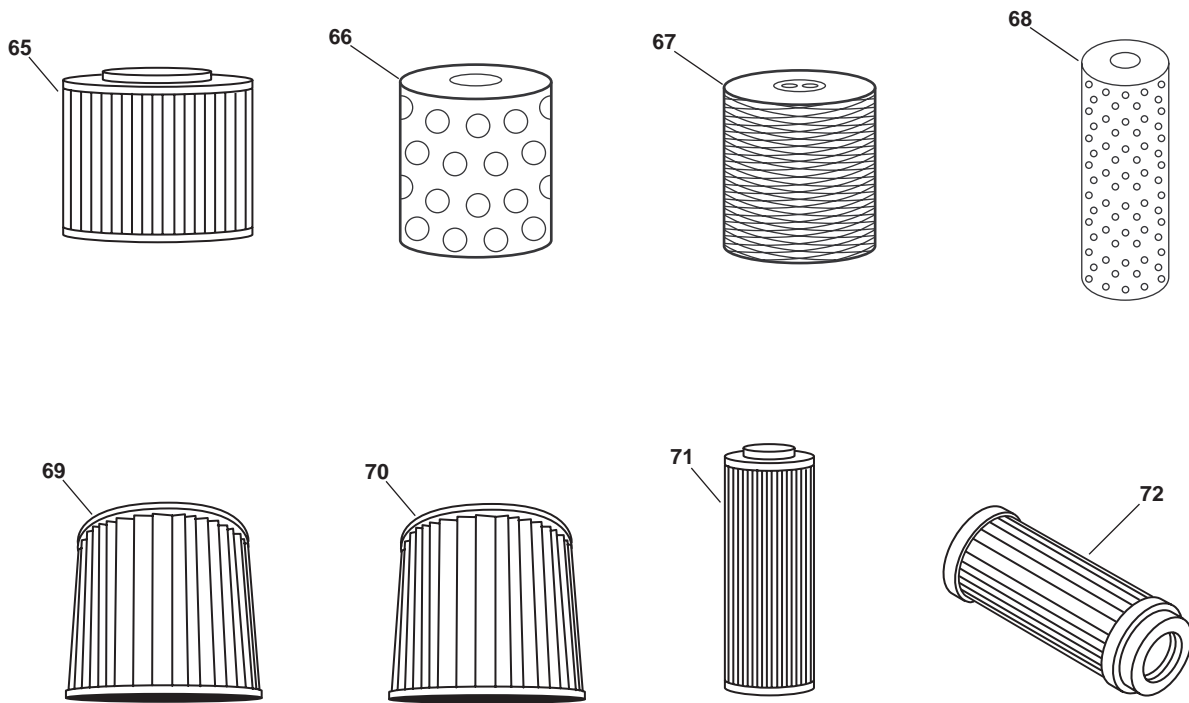


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
57		FILTER ELEMENT, AIR (Vestibule Vidmar Cabinets) (10855) 2LP20201	128	EA	4
58	2910-00-989-3388	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (11083) 9M2341	128	EA	1
59	4330-01-252-2687	FILTER ELEMENT, FLUID (AIR) (Bow Thruster Compartment) (49576) 110377E100	128	EA	2
60	4330-01-203-1250	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (11083) 4N5834	128	EA	1
61	4330-01-281-5269	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (49576) 110814-001	128	EA	2
62	4130-01-247-7670	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (70255) H-48	128	EA	1
63	2940-00-922-2050	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (72915) 8322064	128	EA	2
64	2940-00-922-2053	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (72915) 8340000	128	EA	1



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
65	4330-00-008-7371	FILTER ELEMENT, FLUID (AMS 1 CAB 2) (72915) 8423132	128	EA	24
66	4330-01-503-3219	FILTER ELEMENT, FLUID (AMS 2) (62144) 33-0315	128	EA	6
67	2910-01-344-5791	FILTER ELEMENT, FLUID (Below EOS) (55752) 2020 PMOR	128	EA	20
68	4130-00-136-9191	FILTER ELEMENT, FLUID (Bow Thruster Port S1) (78462) RCW-48	128	EA	1
69	4330-00-872-1779	FILTER ELEMENT, FLUID (Bow Thruster Port S1) (87405) GNG-220	128	EA	1
70	2910-01-051-2341	FILTER ELEMENT, FLUID (Bow Thruster Port S2) (55883) IPD4N5823	128	EA	4
71	4330-01-339-0490	FILTER ELEMENT, FLUID (Bow Thruster Port S2) (72915) 9080820	128	EA	8
72	2910-01-346-6362	FILTER ELEMENT, FLUID (Bow Thruster STBD S2) (11083) 1R1740	128	EA	4

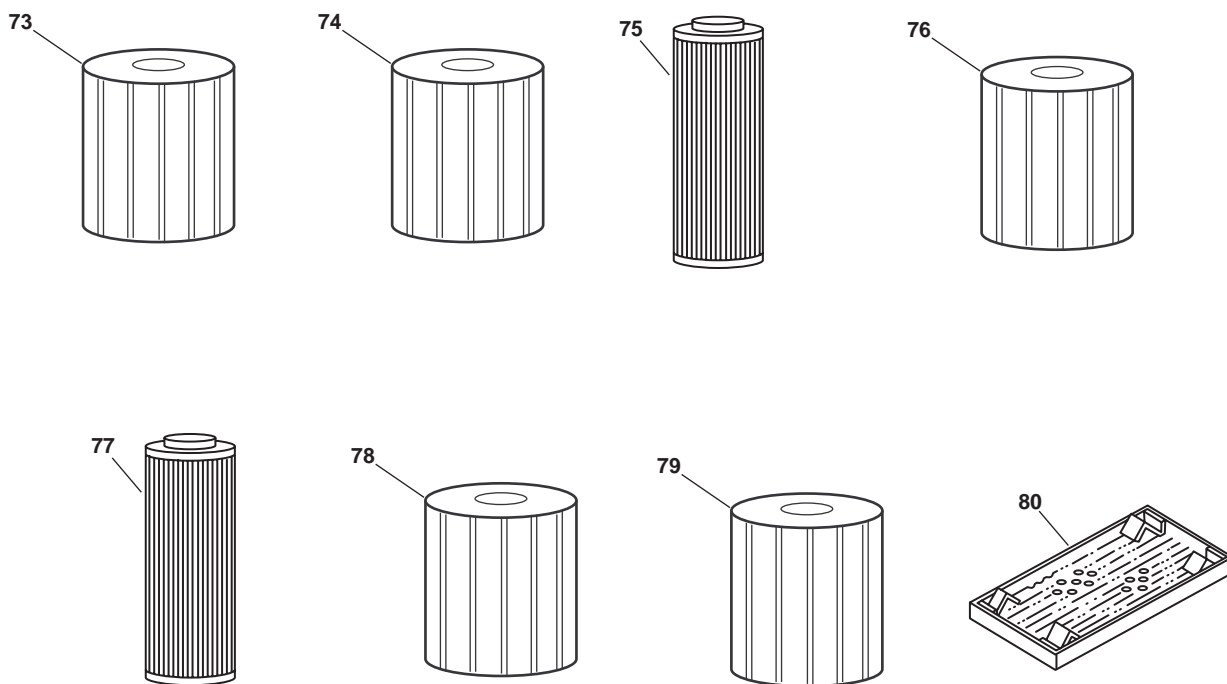


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
73	2940-01-254-1546	FILTER ELEMENT, FLUID (Bow Thruster STBD S2) (11083) 4N1981	128	EA	4
74	2940-00-029-0388	FILTER ELEMENT, FLUID (Bow Thruster STBD S2) (55883) IPD2P4004	128	EA	10
75	2940-00-125-9544	FILTER ELEMENT, FLUID (Bow Thruster STBD S2) (64829) PER69	128	EA	1
76	4330-00-983-0998	FILTER ELEMENT, FLUID (Bow Thruster STBD S2) (90005) 045800-10	128	EA	1
77	2940-00-083-8741	FILTER ELEMENT, FLUID (Bow Thruster Compartment) (08300) C12	128	EA	52
78	4330-01-468-8072	FILTER ELEMENT, FLUID (Vestibule Vidmar Cabinets) (1BZ02) 0801061657	128	EA	12
79	4330-01-528-6657	FILTER ELEMENT, FLUID (Vestibule Vidmar Cabinets) (1BZ02) 0801143157	128	EA	12
80	2940-00-976-9010	FILTER ELEMENT, INTAKE (Bow Thruster STBD S2) (11083) 4L9851	128	EA	1

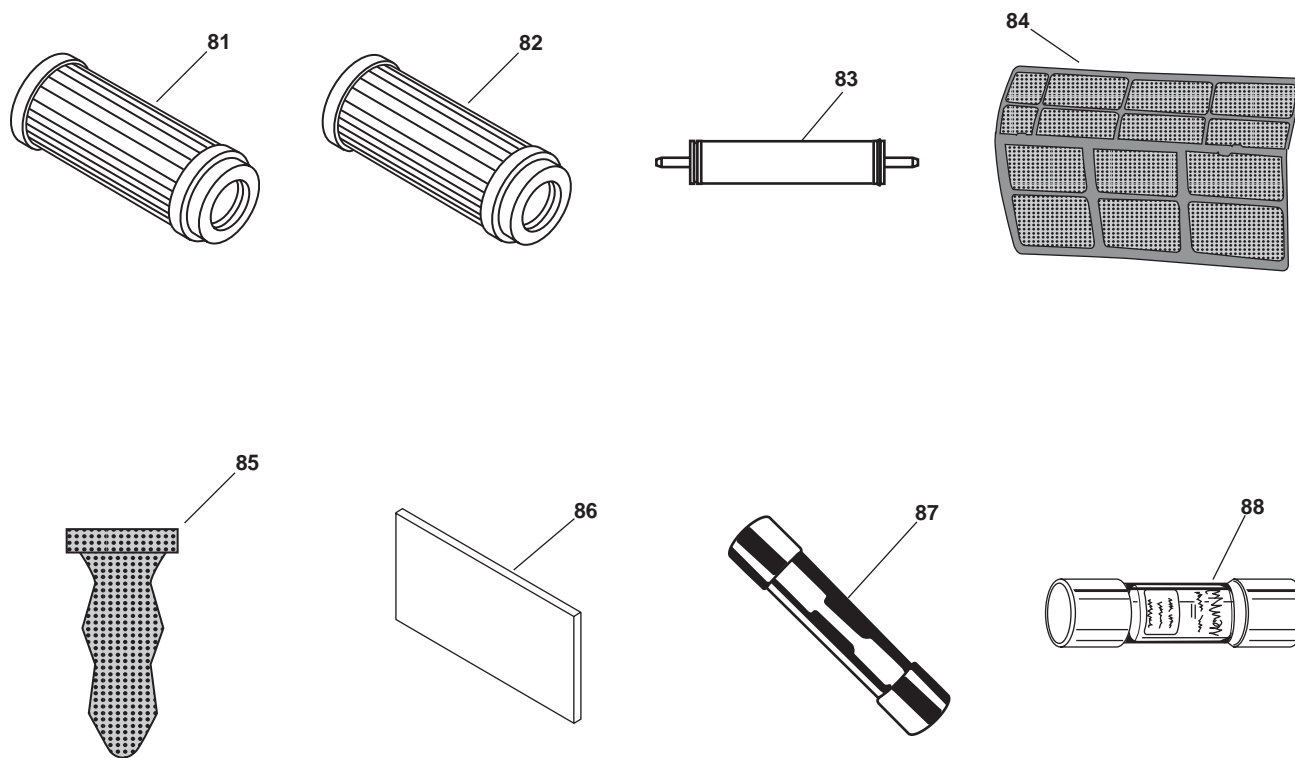


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
81	2940-01-107-9531	FILTER ELEMENT, INTAKE (Bow Thruster STBD S2) (73370) PA2571	128	EA	4
82	2940-01-399-5669	FILTER ELEMENT, INTAKE (Bow Thruster Compartment) (01767) 59-934232-1	128	EA	18
83		FILTER ELEMENT, REVERSE OSMOSIS (Bow Thruster Compartment) (1BZ02) 2724011433	128	EA	2
84	4310-01-529-2393	FILTER (Vestibule Vidmar Cabinets) (10855) 53KN2C30100	128	EA	1
85	4330-01-530-0735	FILTER ELEMENT, FLUID (Bow Thruster Compartment) (72915) 59934232-1	128	EA	12
86	4240-01-478-4720	FILTER, PARTICULATE (DC Main Deck S13) (55799) 801582	128	EA	4
87	5920-01-268-0403	FUSE (Vestibule Vidmar Cabinets) (64393) FMN10	128	EA	2
88	5920-01-134-1494	FUSE (Vestibule Vidmar Cabinets D1) (10855) HY10FJ004	128	EA	1

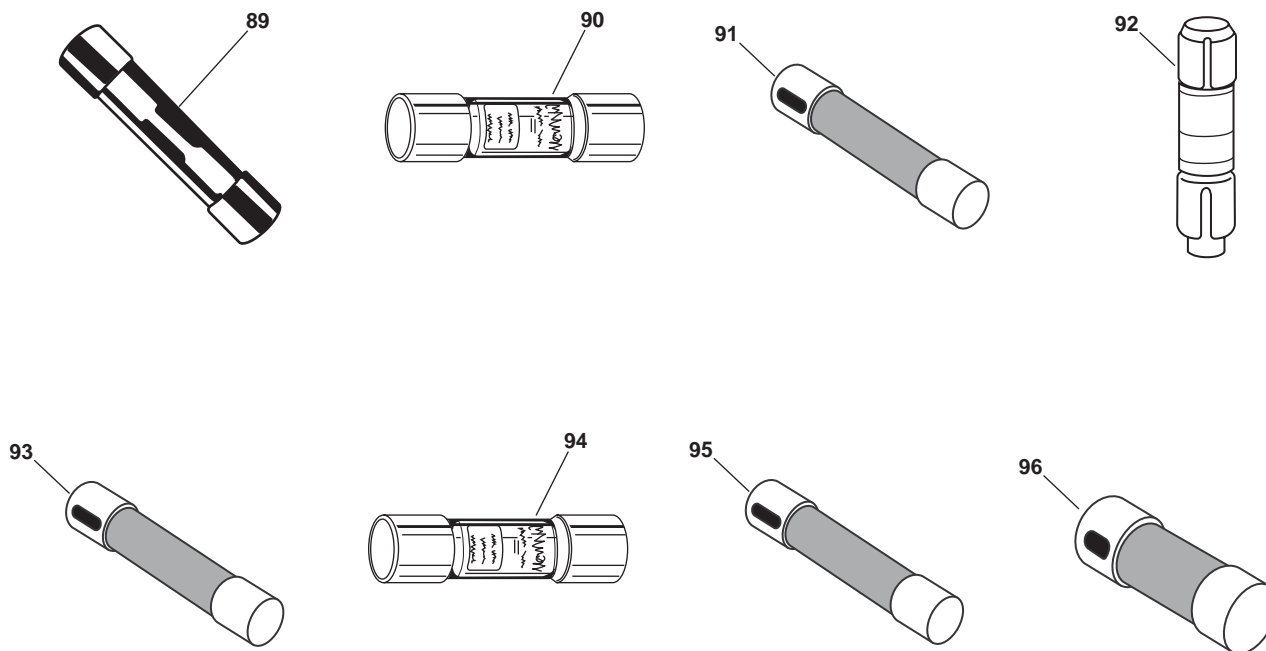
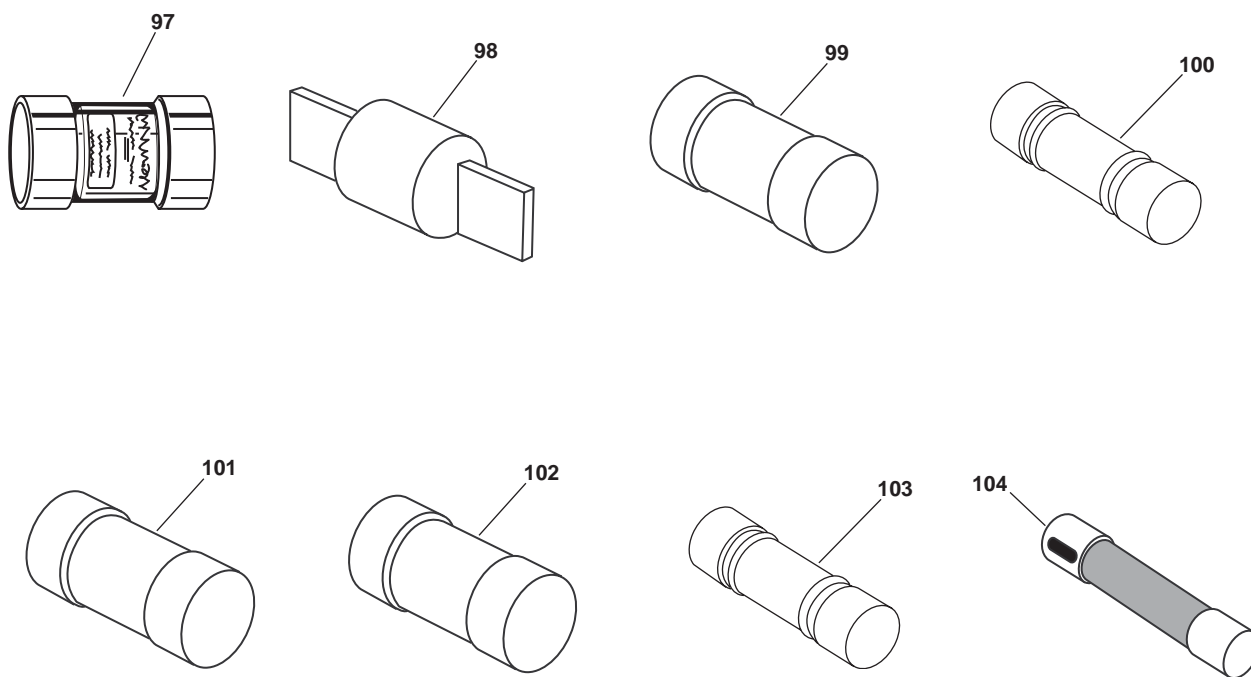


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
89	5920-01-342-8843	FUSE (Vestibule Vidmar Cabinets D1) (81782) D100AF10	128	EA	1
90	5920-01-528-6187	FUSE, 2 AMP, NORMAL BLOW (Vestibule Vidmar Cabinets) (61935) FNB0034.3933	128	EA	5
91	5920-01-381-8290	FUSE, CARTRIDGE SLOW (Vestibule Vidmar Cabinets D1) (71400) MSL-6/10	128	EA	1
92	5920-01-343-0293	FUSE, CARTRIDGE TIME (Vestibule Vidmar Cabinets D1) (75915) KLDR 6/10	128	EA	4
93	5920-00-280-5038	FUSE, CARTRIDGE (DC Main Deck DF) (81349) F03B250V1/2AS	128	EA	4
94	5920-01-491-1509	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets) (0SPX0) AME-10220	128	EA	1
95	5920-00-280-3537	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets) (81349) F03A250V1AS	128	EA	1
96	5920-00-686-9515	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets) (81349) F09B250V2A	128	EA	3



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
97	5920-01-342-8844	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets) (81782) E333-3903-N	128	EA	2
98	5920-01-334-7385	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (40608) 156065	128	EA	4
99	5920-00-577-4716	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (71400) FNQ1	128	EA	2
100	5920-01-343-0294	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (71400) FNQ-R-5	128	EA	16
101	5920-01-103-4526	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (71400) KTK-R-15	128	EA	3
102	5920-01-256-5830	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (71424) ATQ1-1/2	128	EA	2
103	5920-01-343-0295	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (75915) KLDR 2 1/2	128	EA	2
104	5920-00-050-4968	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (81349) F15A250V20A	128	EA	10

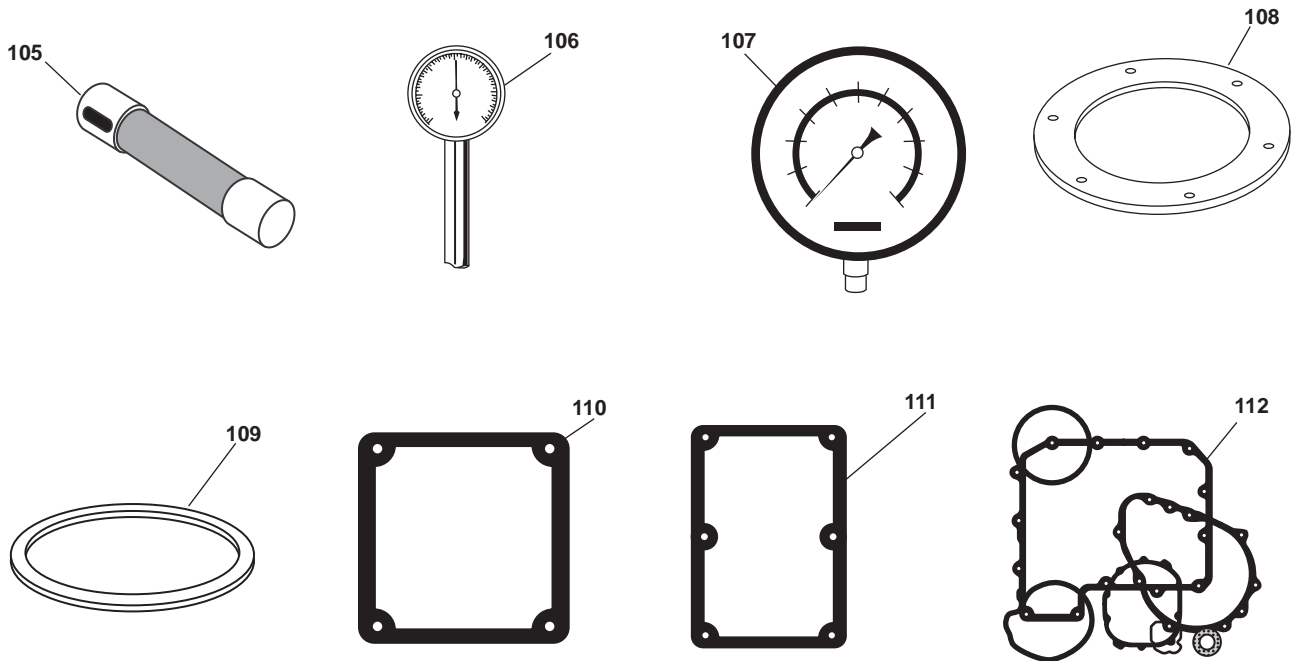


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
105	5920-01-149-9738	FUSE, CARTRIDGE (Vestibule Vidmar Cabinets D1) (92731) P8-C2-B50	128	EA	6
106	6680-01-271-6191	GAGE, OIL PRESSURE (Bosun's Locker) (49576) 110822	128	EA	1
107	6685-00-057-1404	GAGE, PRESSURE (Bosun's Locker) (61349) 146995	128	EA	1
108	5330-00-034-3868	GASKET (Bosun's Locker) (76122) 21149	128	EA	1
109	5330-01-291-0552	GASKET (Bosun's Locker) (76588) TG-8.0911-B-0	128	EA	1
110	5330-01-342-2551	GASKET (FOUR DOGS) (Bow Thruster Port S1) (81100) 101-7	128	EA	1
111	5330-01-342-2552	GASKET (SIX DOGS) (Bow Thruster Port S1) (81100) 102-7	128	EA	1
112	5330-01-058-6949	GASKET AND PREFORMED PACKING ASSORTMENT (Bosun's Locker) (70255) X11983-1	128	EA	1

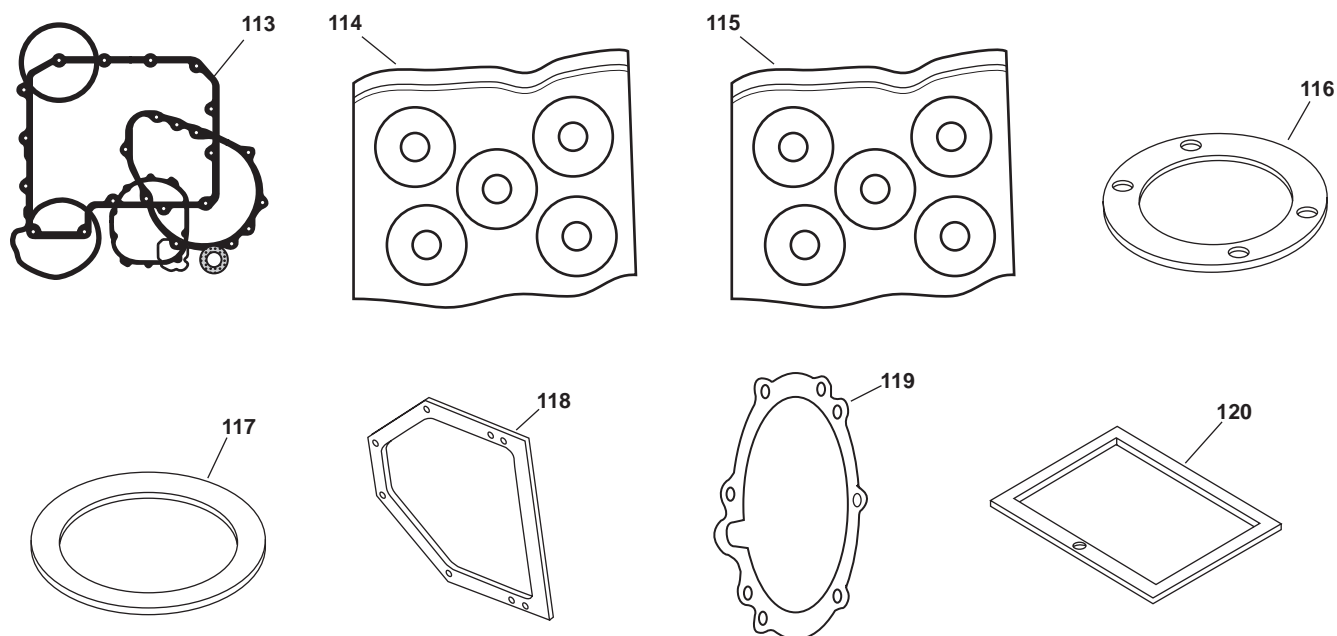


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
113	5330-01-275-2150	GASKET KIT (Bow Thruster Port S1) (72915) 3278364	128	KT	2
114	5330-01-167-4235	GASKET KIT (Machine Shop) (23233) PK679	128	EA	1
115	5330-00-856-1558	GASKET SET (Bosun's Locker) (72915) 8261167	128	EA	1
116	5330-00-178-8600	GASKET (Bow Thruster Compartment) (07524) 382901	128	EA	2
117	5330-01-295-3525	GASKET (Bow Thruster Compartment) (11083) 1P0436	128	EA	1
118	5330-00-012-3692	GASKET (Bow Thruster Compartment) (21444) 235158	128	EA	2
119	5330-01-146-1695	GASKET (Bow Thruster Compartment) (28353) 506-A-13	128	EA	3
120	5330-01-351-7678	GASKET (Bow Thruster Compartment) (28353) 508-13	128	EA	1



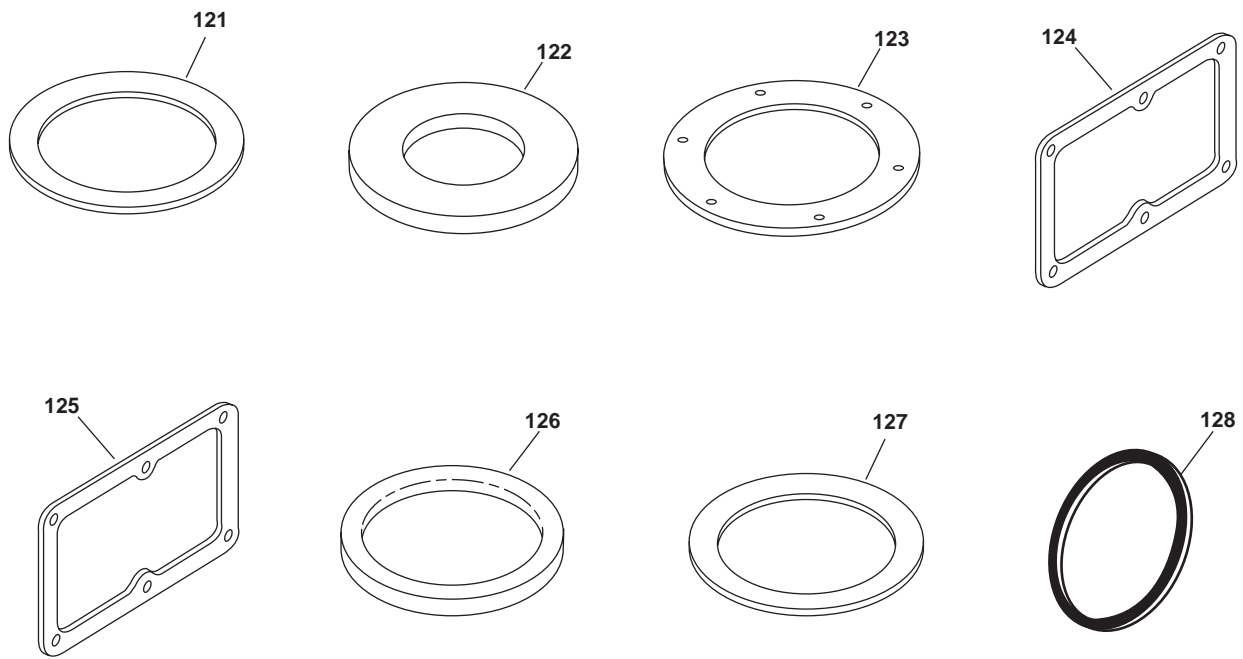


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
121	5330-01-198-5497	GASKET (Bow Thruster Compartment) (28353) 603A-13	128	EA	3
122	5330-01-342-7789	GASKET (Bow Thruster Compartment) (53214) 2010	128	EA	3
123	5330-00-366-2130	GASKET (Bow Thruster Compartment) (72915) 8082104	128	EA	1
124	5330-00-824-4781	GASKET (Bow Thruster Compartment) (72915) 8209776	128	EA	2
125	5330-00-010-4910	GASKET (Bow Thruster Compartment) (72915) 8312916	128	EA	2
126	5330-01-183-6647	GASKET (Bow Thruster Compartment) (73124) ST262Z5B	128	EA	2
127	5330-00-121-2653	GASKET (Bow Thruster Compartment) (87405) 050973	128	EA	1
128	5330-01-228-6171	GASKET (Bow Thruster Compartment) (92021) MP-14-13	128	EA	1

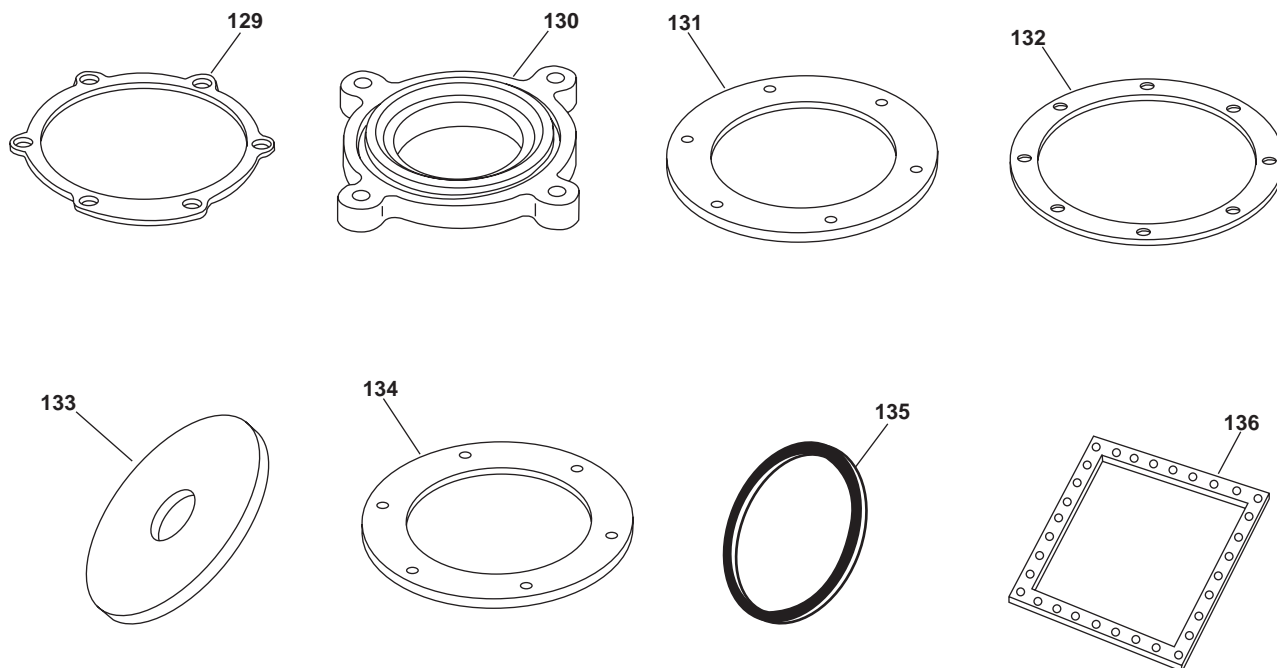


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
129	5330-01-480-0664	GASKET (Bow Thruster Port S1) (08576) 0344-00	128	EA	1
130	5330-00-540-2508	GASKET (Bow Thruster Port S1) (63705) 20-22031-2	128	EA	2
131	5330-00-366-2131	GASKET (Bow Thruster Port S1) (72915) 8088673	128	EA	2
132	5330-01-342-2553	GASKET (Bow Thruster Port S1) (81100) 202-7	128	EA	1
133	5330-01-342-2556	GASKET (Bow Thruster Port S1) (81100) 211-7	128	EA	1
134	5330-01-205-9858	GASKET (Bow Thruster Port S2) (92021) MP-14-14	128	EA	2
135	5330-01-528-8799	GASKET (Vestibule Vidmar Cabinets) (63544) 9999-Y3098C-AB	128	EA	1
136	5330-01-365-5783	GASKET (Vestibule Vidmar Cabinets D14) (63269) S1-4-009-4	128	EA	1

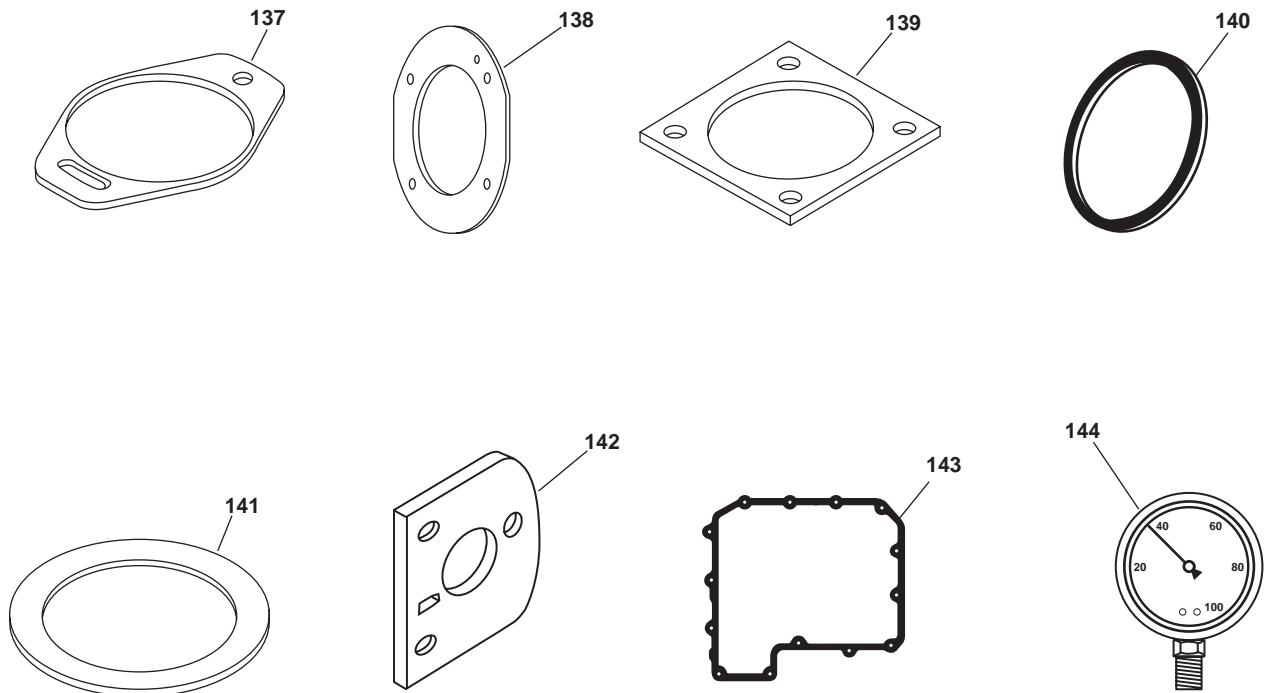
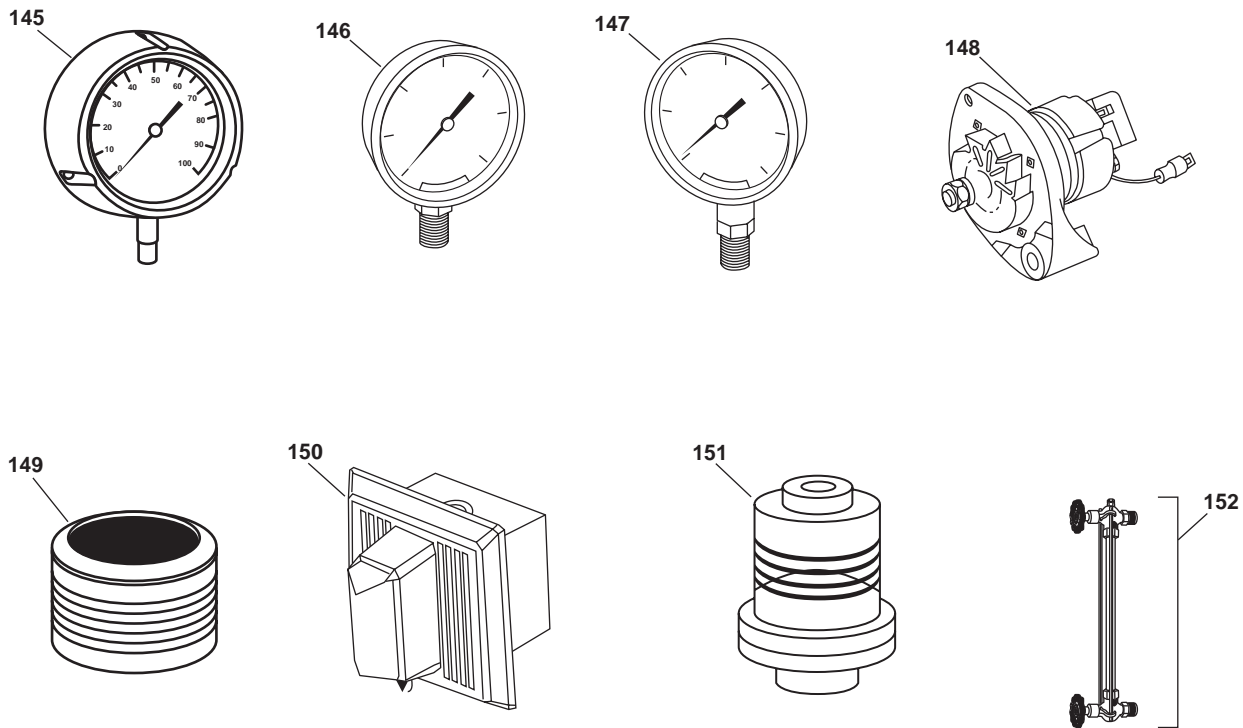


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
137	5330-00-137-6706	GASKET (Vestibule Vidmar Cabinets D2) (72915) 9570894	128	EA	1
138	5330-01-343-2669	GASKET (Vestibule Vidmar Cabinets D3) (58923) D11-121	128	EA	2
139	5330-01-269-7282	GASKET (Vestibule Vidmar Cabinets D3) (72915) 8268756	128	EA	2
140	5330-01-342-2554	GASKET (Vestibule Vidmar Cabinets D3) (81100) 205-7	128	EA	1
141	5330-01-295-4681	GASKET (Vestibule Vidmar Cabinets D3) (96151) 9135-2	128	EA	1
142	5330-01-340-2039	GASKET, BLOCK (Vestibule Vidmar Cabinets D12) (52837) M-4/00-60P	128	EA	2
143	5330-01-529-2544	GASKET, FLANGE (Bow Thruster Compartment) (0B6K6) 760125-020	128	EA	1
144	6685-01-528-6695	GAUGE, PRESSURE (Bosun's Locker) (1BZ02) 10180103CC	128	EA	2



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
145	6620-01-528-3611	GAUGE, PRESSURE, DIAL INDICATING (Bosun's Locker) (38056) 45-1279-S-04-XXX-0/200	128	EA	1
146	6620-01-528-3612	GAUGE, PRESSURE, DIAL INDICATING (Bosun's Locker) (38056) 45-1279-S-04-XXX-0/300	128	EA	1
147	6685-01-528-6180	GAUGE, VAC (Vestibule Vidmar Cabinets) (55752) RK 18-1104	128	EA	2
148	2920-01-340-0330	GENERATOR, ENGINE ACCESSORY (Bow Thruster STBD S3) (11083) 7G7889	128	EA	1
149	5325-00-121-8475	GROMMET, SPECIAL (DC Main Deck DC) (90005) 050976	128	EA	1
150	6350-01-528-6983	ALARM, AUDIBLE-VISUAL (Bosun's Locker) (7X933) 867STRA-AQ	128	EA	1
151	2940-00-192-7417	INDICATOR, FILTER (Bow Thruster STBD S2) (11083) 7S0687	128	EA	1
152	6680-01-345-3371	INDICATOR, SIGHT, LIQUID (Bosun's Locker) (72219) 20-250	128	EA	2

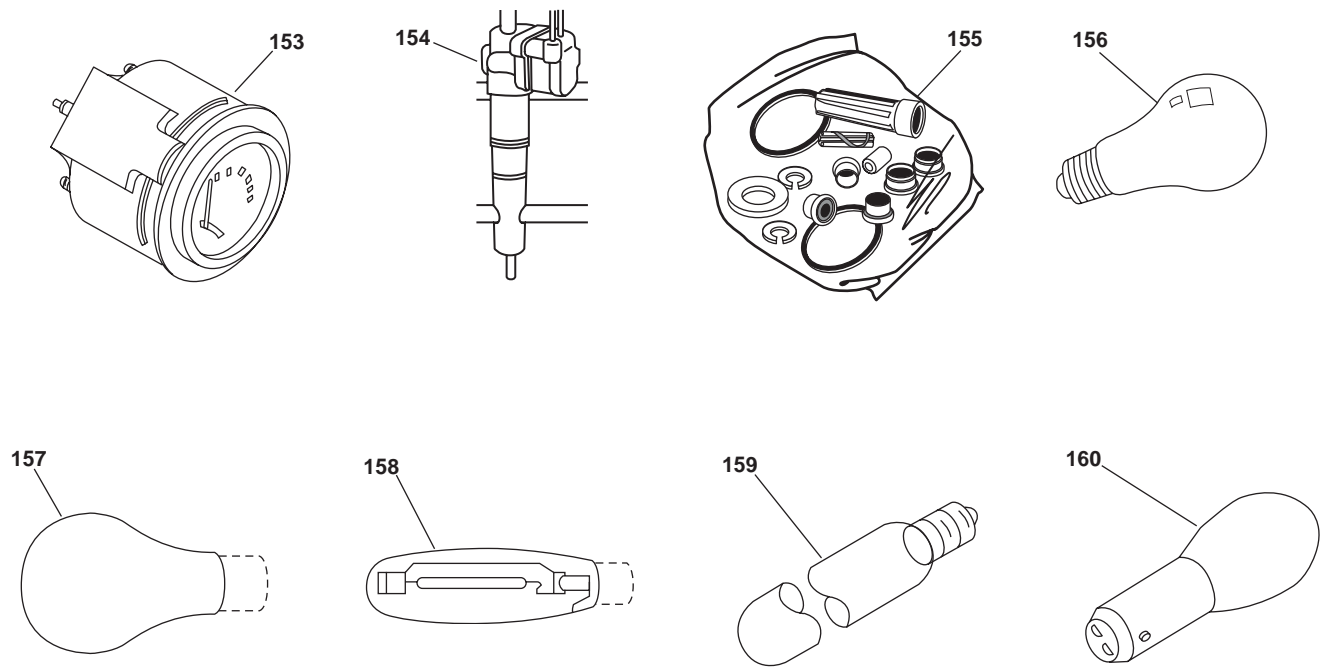


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
153	6685-01-340-7799	INDICATOR, TEMPERATURE, ELECTRICAL (Vestibule Vidmar Cabinets D2) (72915) 9086874	128	EA	1
154	2910-01-342-6817	INJECTOR ASSEMBLY, FUEL (Bow Thruster Port S1) (72915) 5229335	128	EA	12
155		KIT, BACKFLOW PREVENTER (Bosun's Locker) (05MH3) W888526	128	KT	1
156	6240-00-143-3119	LAMP, INCANDESCENT 60 WATT (Vestibule Vidmar Cabinets) (08108) 60A/D120V	128	EA	36
157	6240-01-157-5114	LAMP, INCANDESCENT 90 WATTS (Arms Room) (88204) 100A/901SS	128	EA	36
158	6240-01-344-7134	LAMP, INCANDESCENT T10 18V (Vestibule Vidmar Cabinets D3) (63269) 1500A-12	128	EA	3
159	6240-00-143-7419	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (08018) 7C7-115-125V	128	EA	2
160	6240-00-014-2306	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (08108) 81	128	EA	2

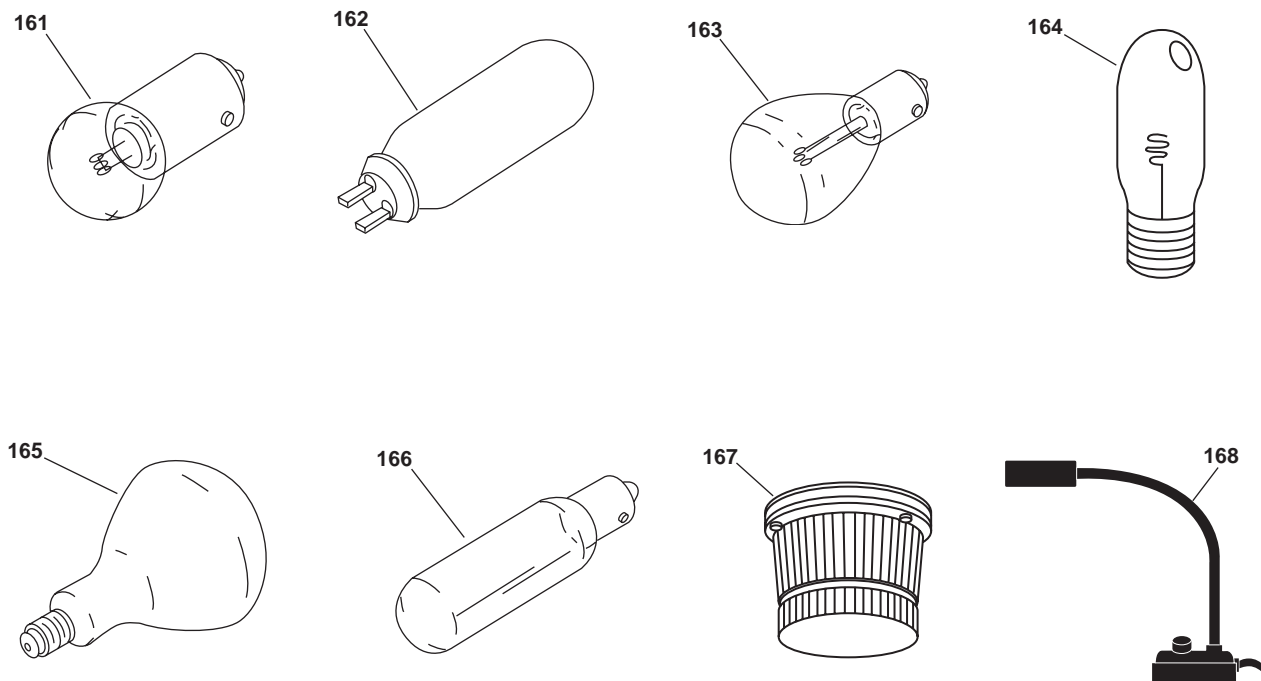
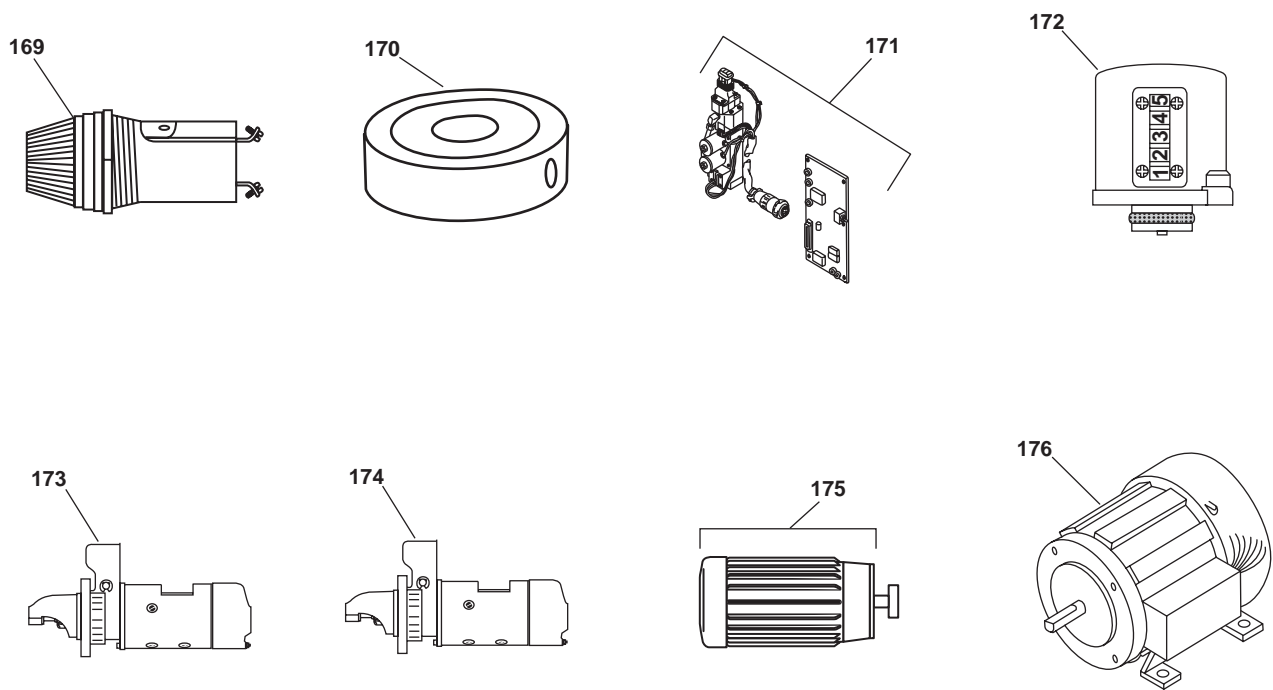


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
161	6240-00-011-5273	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (18876) 10300882	128	EA	2
162	6240-01-129-0768	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (57715) GL130 V	128	EA	3
163	6240-01-345-4099	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (62607) 04-6677-20150-9	128	EA	9
164	6240-01-415-8477	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (63269) PC1035-19	128	EA	2
165	6240-01-316-4651	LAMP, INCANDESCENT (Vestibule Vidmar Cabinets) (95405) INX3528	128	EA	2
166	5850-00-356-3718	LAMP, INCANDESCENT, 12V ALDIS LAMP (Vestibule Vidmar Cabinets) (80063) M438	128	EA	1
167	6210-01-528-6982	LENS, LIGHT, AMBER (Bosun's Locker) (02116) MAX-A	128	EA	1
168	6230-00-152-2870	LIGHT, DESK CHART TABLE WITH FILTER ASSY (Bosun's Locker) (83149) M16377/15-148.2	128	EA	1



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
169	6210-00-160-0340	LIGHT, INDICATOR (Vestibule Vidmar Cabinets) (75346) S14	128	EA	2
170		LOAD CELL (Vestibule Vidmar Cabinets) (81782) E333-3878-L	128	EA	1
171	6625-01-456-5671	MAINTENANCE KIT (Bosun's Locker) (25204) PC-1385	128	KT	1
172	6625-01-286-4825	METER GP (Bow Thruster Compartment) (11083) 4W5556	128	EA	1
173	6105-01-275-2146	MOTOR, AIR START (Bow Thruster Compartment) (72915) 40047507	128	EA	2
174	2990-01-338-3244	MOTOR, AIR STARTING (Bow Thruster STBD S4) (11083) 4N4730	128	EA	1
175	6105-01-343-4317	MOTOR, ALTERNATING CURRENT (Bow Thruster Compartment) (05472) 143TC	128	EA	1
176	6105-00-569-9590	MOTOR, ALTERNATING CURRENT (Bow Thruster Compartment) (39433) 879-010855S00-0	128	EA	1

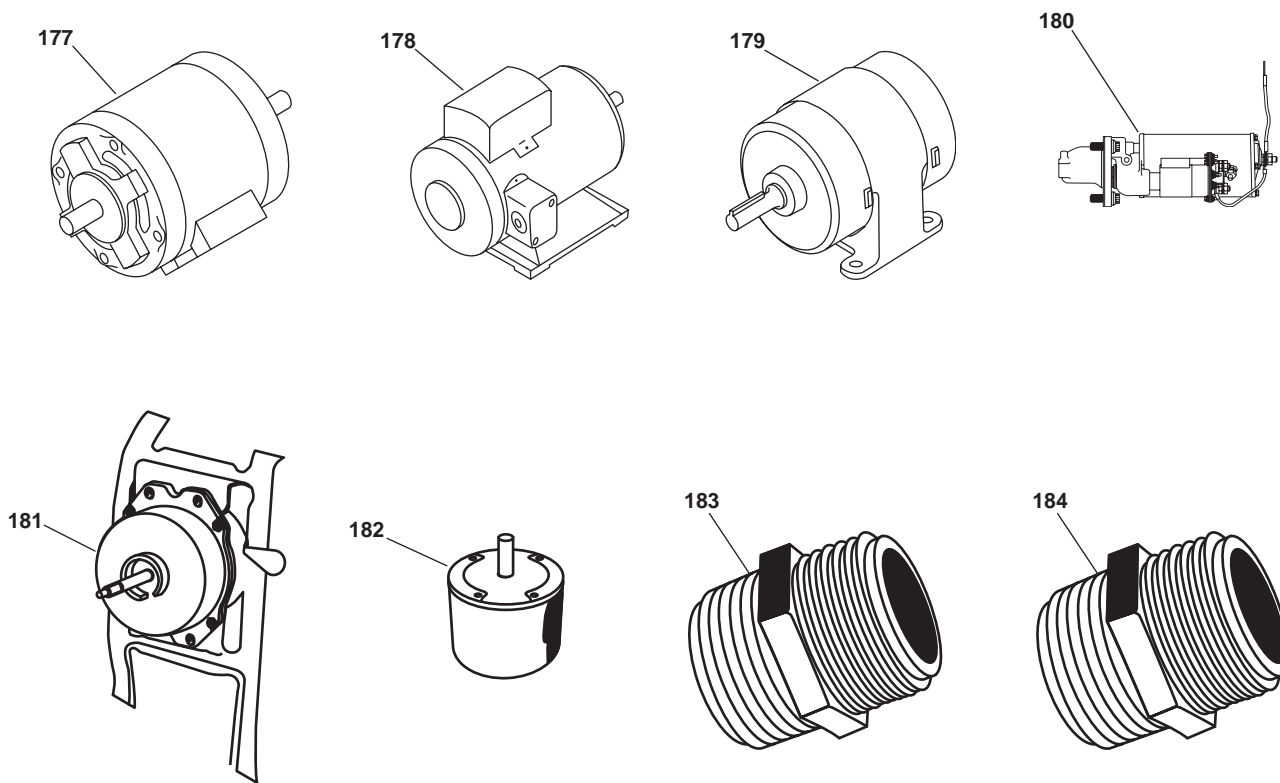


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
177		MOTOR, ALTERNATING CURRENT (Bow Thruster Compartment) (53214) 1058	128	EA	1
178	6105-01-343-4493	MOTOR, ALTERNATING CURRENT (Bow Thruster Port S3) (05472) 143T	128	EA	1
179	6105-01-528-8797	MOTOR, BLOWER (Vestibule Vidmar Cabinets) (10855) HC41AE210	128	EA	1
180	2920-01-340-0400	MOTOR, ENGINE STARTER, ELECTRICAL (Bow Thruster STBD S3) (11083) 9L5065	128	EA	1
181	6105-01-528-8936	MOTOR, FAN (Vestibule Vidmar Cabinets) (10855) PMO01AG100A	128	EA	1
182	6105-01-528-8801	MOTOR, OUTDOOR FAN (Vestibule Vidmar Cabinets) (10855) HC35GE235	128	EA	1
183	4730-01-528-6743	NIPPLE, NYLON, 1/2" (Vestibule Vidmar Cabinets) (05MH3) TCN 404	128	EA	1
184	4730-01-528-6670	NIPPLE, NYLON, 3/4" (Vestibule Vidmar Cabinets) (05MH3) TCN 606	128	EA	4



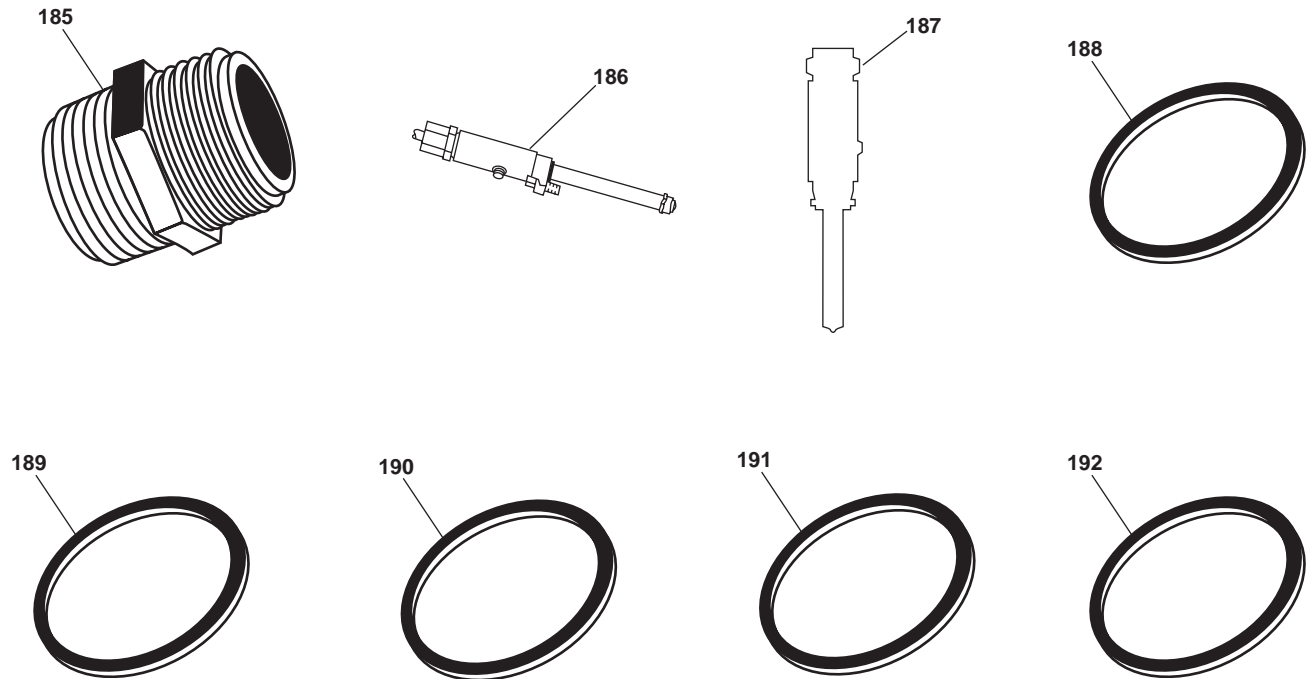


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
185	4730-01-528-5094	NIPPLE, TUBE (Vestibule Vidmar Cabinets) (05MH3) TCN-202	128	EA	10
186	2910-01-169-9758	NOZZLE, FUEL INJECTION (Bow Thruster Port S1) (11083) 8N7005	128	AY	6
187	2910-01-292-5254	NOZZLE, FUEL INJECTION (Bow Thruster Port S1) (11083) 4W7018	128	EA	8
188	5331-01-529-1160	O RING (Vestibule Vidmar Cabinets) (81782) D333-3873-T	128	EA	4
189	5331-01-528-6661	O RING BRINE 3" (Vestibule Vidmar Cabinets) (1BZ02) 2614014900	128	EA	2
190	5331-01-313-5719	O RING (Bow Thruster Port S1) (0A0L9) H136-54	128	EA	2
191	5331-01-283-3545	O RING (Bow Thruster Port S1) (30263) B-122-A-2.50-15	128	EA	4
192	5331-00-944-8281	O RING (Vestibule Vidmar Cabinets D3) (11083) 3D2824	128	EA	1

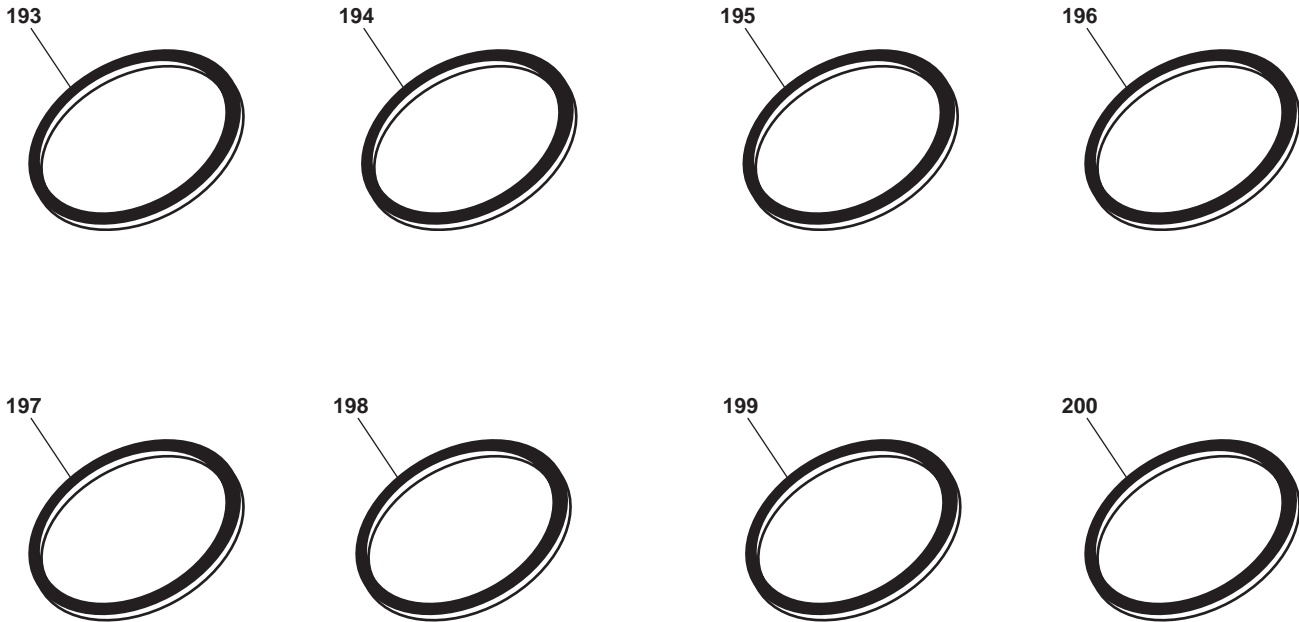


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
193	5331-01-342-0911	O RING (Vestibule Vidmar Cabinets D3) (63269) 1500A-15	128	EA	1
194	5331-01-171-4825	O RING (Vestibule Vidmar Cabinets) (02697) B0612 2-008	128	EA	1
195	5331-01-468-6828	O RING (Vestibule Vidmar Cabinets) (1BZ02) 2614010100	128	EA	4
196	5331-01-342-0910	O RING (Vestibule Vidmar Cabinets) (21444) 926908	128	EA	2
197	5330-01-312-5939	O RING (Vestibule Vidmar Cabinets) (51040) V72350	128	EA	2
198	5331-01-278-6711	O RING (Vestibule Vidmar Cabinets) (54035) 990-002-006	128	EA	1
199	5331-01-339-0716	O RING (Vestibule Vidmar Cabinets) (72915) 8417454	128	EA	14
200	5331-01-138-7111	O RING (Vestibule Vidmar Cabinets) (73124) ST264-Z-5-B	128	EA	1

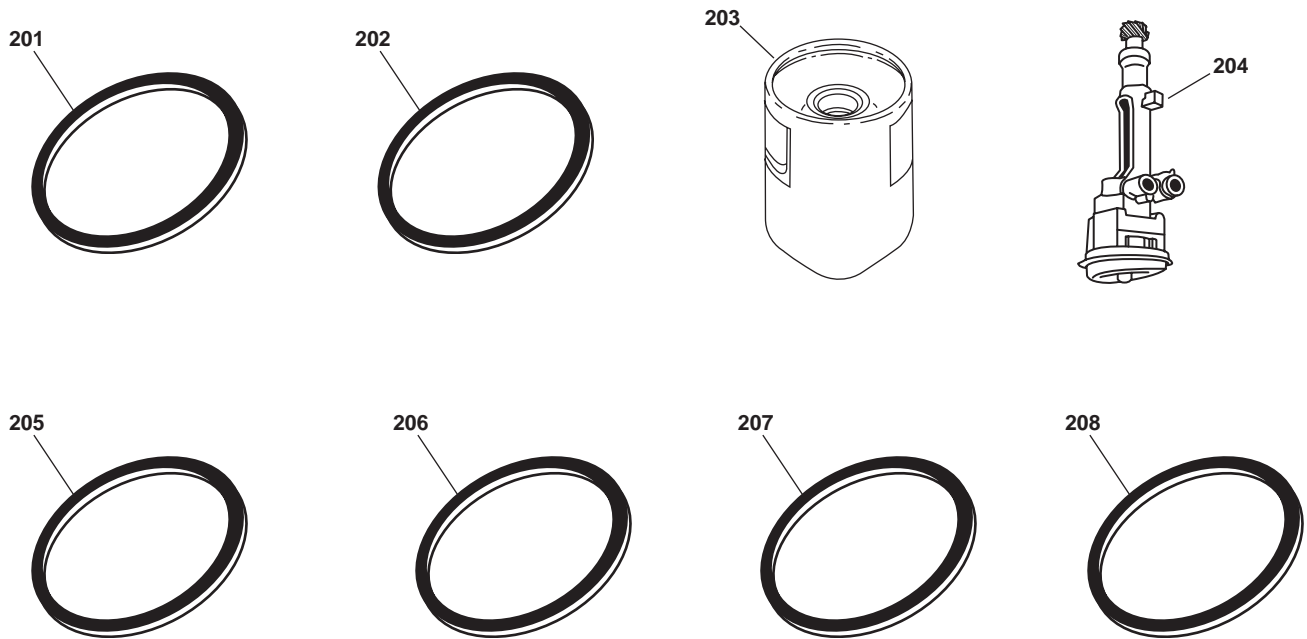


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UI/I	(6) QTY RQR
201	5331-01-239-7911	O RING (Vestibule Vidmar Cabinets) (73124) ST266Z5B	128	EA	2
202	5331-01-161-6045	O RING (Vestibule Vidmar Cabinets) (92435) 6000-18	128	EA	5
203	2940-01-339-7968	OIL FILTER GROUP (Bow Thruster Compartment) (11083) 5N9410	128	EA	1
204	2815-01-289-8355	OIL PUMP ASSEMBLY (Bow Thruster STBD S3) (11083) 4N8734	128	EA	1
205	5331-01-344-3815	O-RING (Vestibule Vidmar Cabinets D4) (77640) 032200-90	128	EA	2
206	5331-01-528-6654	O-RING (Vestibule Vidmar Cabinets) (1BZ02) 07620301WA-06	128	EA	2
207	5331-01-468-6835	O-RING (Vestibule Vidmar Cabinets) (1BZ02) 2614010500	128	EA	4
208	5331-01-528-6701	O-RING (Vestibule Vidmar Cabinets) (1BZ02) 2614015800	128	EA	6

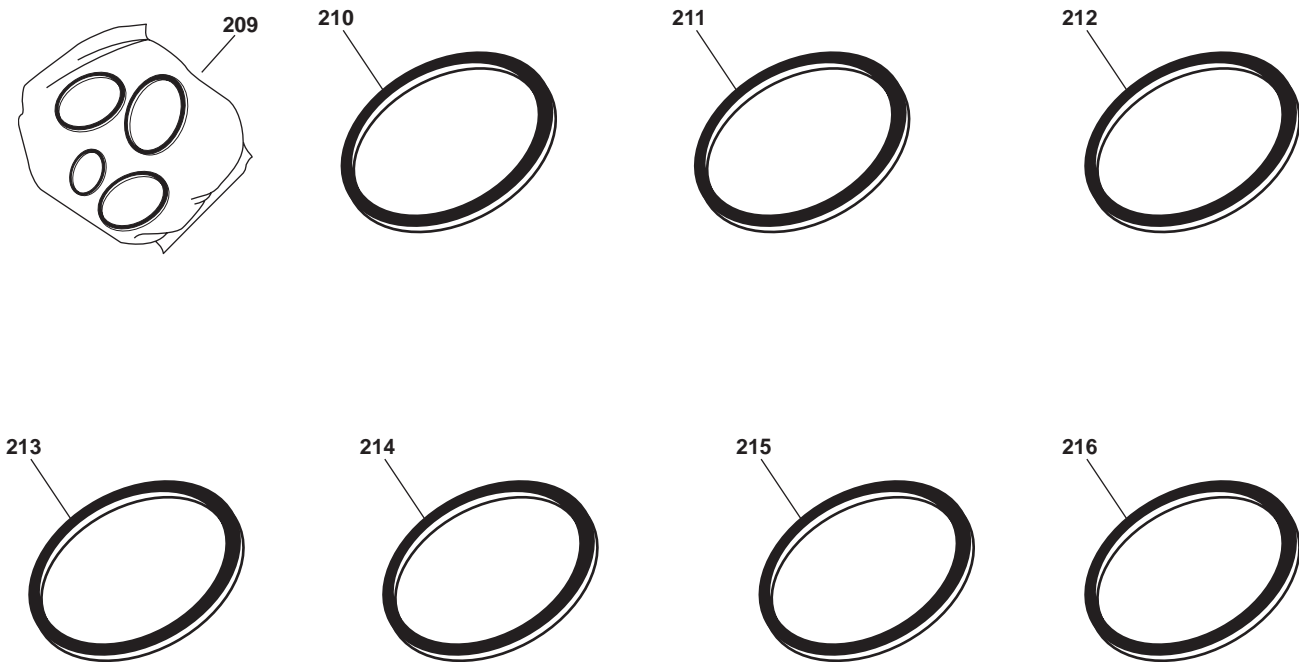


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
209	5330-01-528-6648	O-RING KIT, MEDIA FILTER MMF-16 (Vestibule Vidmar Cabinets) (05MH3) 659275183	128	KT	1
210	5331-00-725-9798	O-RING (Bow Thruster Port S1) (81343) MS28775-440	128	EA	48
211	5331-00-599-2934	O-RING (Bow Thruster Port S1) (52374) CM1-112-B46A	128	EA	1
212	5331-01-342-2542	O-RING (Bow Thruster Port S1) (81100) 104-13	128	EA	1
213	5331-01-342-2543	O-RING (Bow Thruster Port S1) (81100) 201-19	128	EA	1
214	5331-01-342-2544	O-RING (Bow Thruster Port S1) (81100) 202-13	128	EA	1
215	5331-01-342-2545	O-RING (Bow Thruster Port S1) (81100) 205-16	128	EA	1
216	5331-01-342-2546	O-RING (Bow Thruster Port S1) (81100) 211-16	128	EA	1

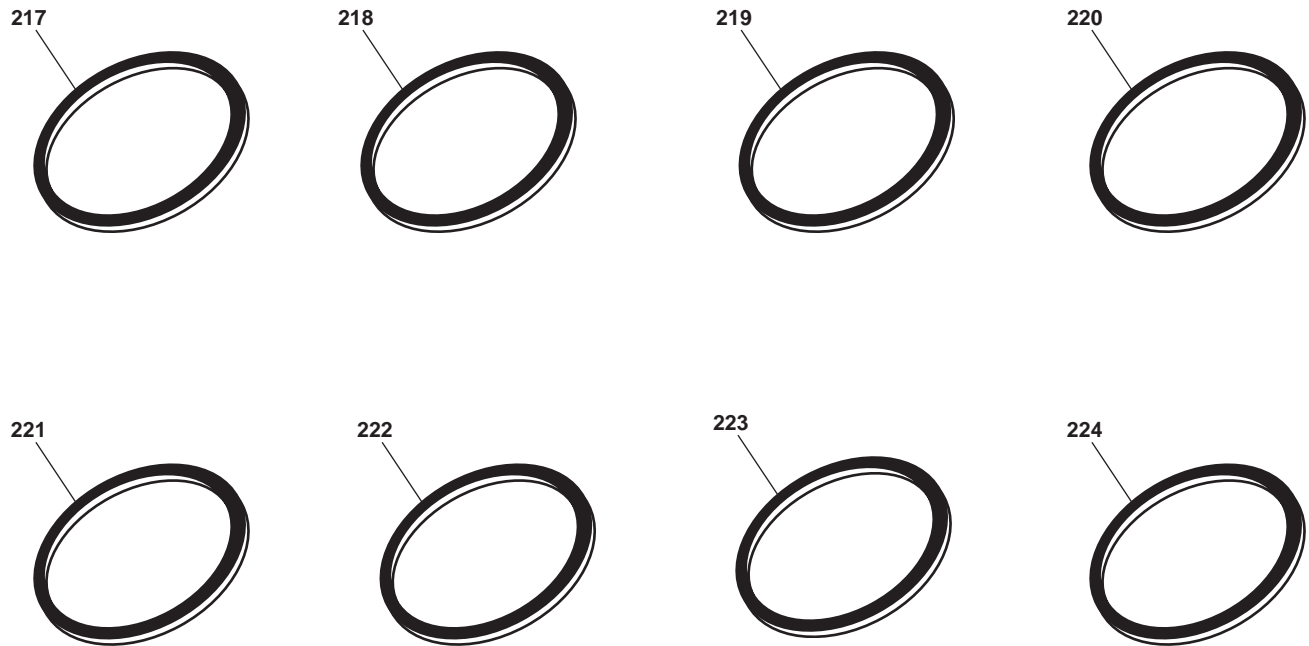
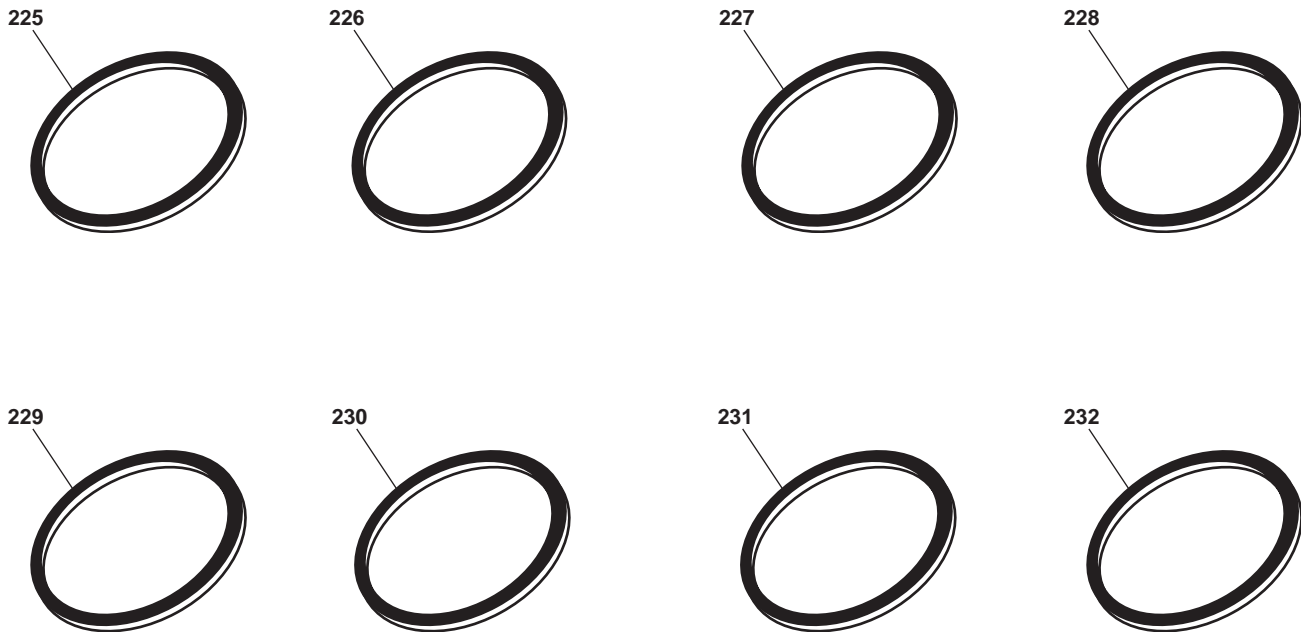


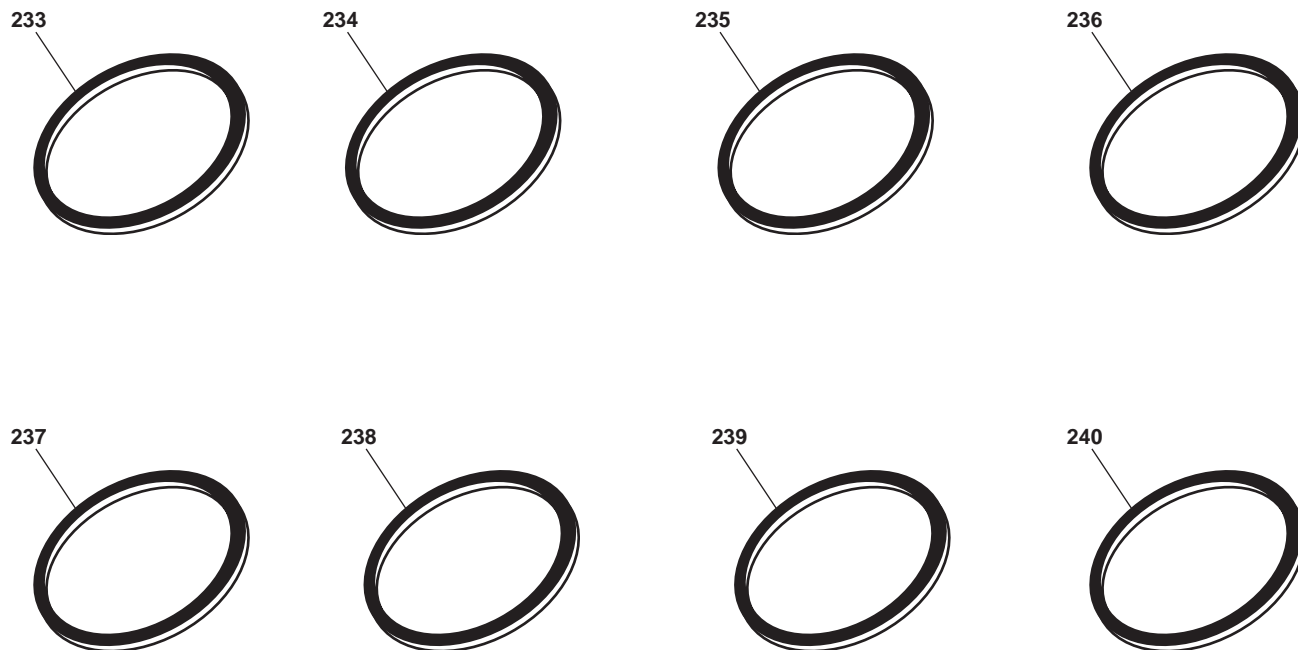
Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
217	5331-01-342-3535	O-RING (Bow Thruster Port S2) (71724) H-45112-3-1017	128	EA	4
218	5331-01-342-2539	O-RING (Bow Thruster Port S2) (81100) 104-7	128	EA	1
219	5331-00-007-6143	O-RING (DC Main Deck) (81343) MS29513-023	128	EA	7
220	5331-01-528-8803	O-RING (Vestibule Vidmar Cabinets) (63544) 2850-00156	128	EA	1
221	5331-01-340-5560	O-RING (Vestibule Vidmar Cabinets D2) (18930) PRP347-NBR	128	EA	1
222	5331-01-424-4278	O-RING (Vestibule Vidmar Cabinets D2) (62854) 93-120 ITEM 18	128	EA	1
223	5331-01-424-4279	O-RING (Vestibule Vidmar Cabinets D2) (62854) 93-120 ITEM 19	128	EA	1
224	5331-01-342-2541	O-RING (Vestibule Vidmar Cabinets D2) (81100) 102-13	128	EA	1



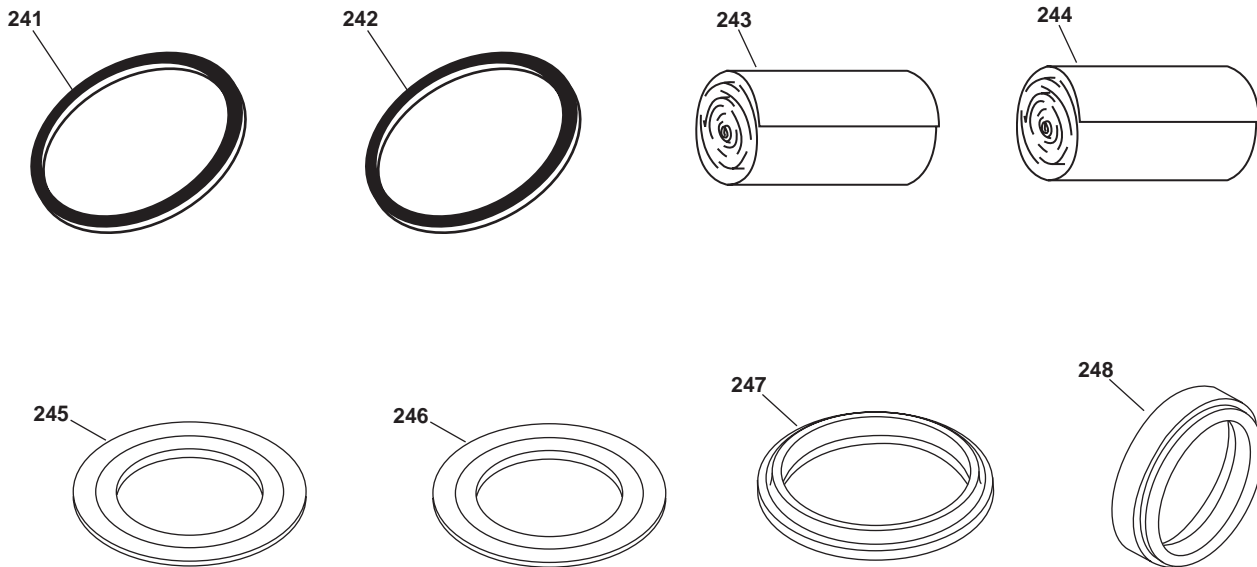
**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
225	5331-00-606-8994	O-RING (Vestibule Vidmar Cabinets D3) (04579) 364-0417-457	128	EA	1
226	5331-00-178-8605	O-RING (Vestibule Vidmar Cabinets D3) (07524) 711941	128	EA	4
227	5331-00-494-2763	O-RING (Vestibule Vidmar Cabinets D3) (11083) 6J2419	128	EA	1
228	5331-01-342-2540	O-RING (Vestibule Vidmar Cabinets D3) (81100) 101-13	128	EA	1
229	5331-00-579-7916	O-RING (Vestibule Vidmar Cabinets D4) (02708) MS28775-115	128	EA	3
230	5331-00-562-7236	O-RING (Vestibule Vidmar Cabinets) (02697) 2-223 N674-70	128	EA	1
231	5331-00-167-5110	O-RING (Vestibule Vidmar Cabinets) (07482) J221P121	128	EA	2
232	5331-01-298-4748	O-RING (Vestibule Vidmar Cabinets) (08302) 24776	128	EA	4



**Table 2. On Board Spares List (continued)**

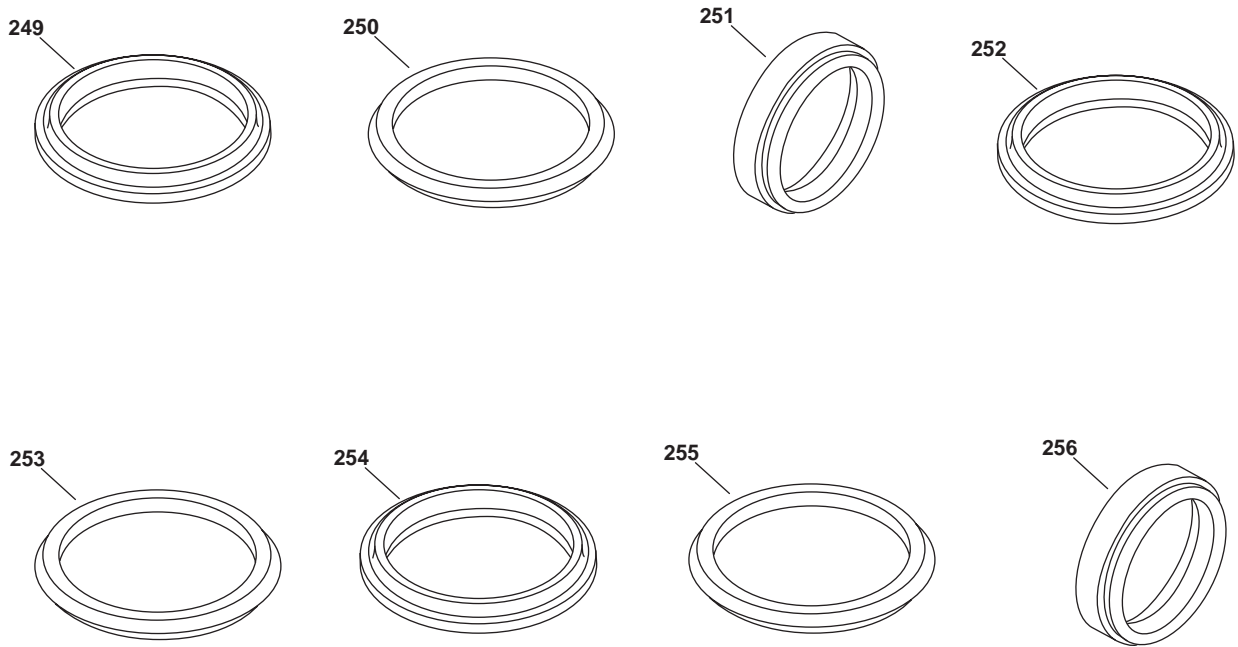
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
233	5331-00-613-6522	O-RING (Vestibule Vidmar Cabinets) (09990) 2-117N951-75	128	EA	1
234	5331-01-528-6725	O-RING (Vestibule Vidmar Cabinets) (1BZ02) 2614017900	128	EA	2
235	5331-00-582-7084	O-RING (Vestibule Vidmar Cabinets) (25184) 334-7407	128	EA	2
236	5331-01-148-9716	O-RING (Vestibule Vidmar Cabinets) (35795) B-568-122	128	EA	1
237	5331-01-179-2860	O-RING (Vestibule Vidmar Cabinets) (45543) 114-78-00-00	128	EA	15
238	5331-01-340-2036	O-RING (Vestibule Vidmar Cabinets) (52837) M-4/00-20JH	128	EA	7
239	5331-01-340-2035	O-RING (Vestibule Vidmar Cabinets) (52837) M-4/00-60U	128	EA	2
240	5331-00-166-0993	O-RING (Vestibule Vidmar Cabinets) (58828) 649-393-017-0	128	EA	2



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
241	5331-01-123-3298	O-RING (Vestibule Vidmar Cabinets) (81343) M83461/1-026	128	EA	1
242	5331-00-483-1672	O-RING (Vestibule Vidmar Cabinets) (99185) 131363-010PC21	128	EA	1
243	5330-01-351-1264	PACKING MATERIAL (Vestibule Vidmar Cabinets) (0SYN4) C1065-00250-A	128	EA	7
244	5330-01-351-1265	PACKING MATERIAL (Vestibule Vidmar Cabinets) (0SYN4) C1065-00312-A	128	BX	1
245	5330-00-163-6625	PACKING WITH RETAINING (Vestibule Vidmar Cabinets) (80205) NAS1523-6F	128	EA	1
246	5330-00-067-5742	PACKING WITH RETAINING (Vestibule Vidmar Cabinets) (83259) 600-001 3/16	128	EA	1
247	5330-01-341-6765	PACKING, PREFORMED (Bow Thruster Port S1) (83130) PLDH6080D-6 ITEM 66	128	EA	15
248	5330-00-612-3916	PACKING, PREFORMED (Vestibule Vidmar Cabinets) (53214) 1012	128	EA	1





**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
249	5330-01-021-0875	PACKING, PREFORMED (Vestibule Vidmar Cabinets) (92021) SP-19-13	128	EA	2
250	5330-00-929-9478	PACKING, PREFORMED (Bow Thruster Port S1) (72915) 8309544	128	EA	2
251	5331-01-342-2547	PACKING, PREFORMED (Bow Thruster Port S1) (81100) 401-18	128	EA	1
252	5330-01-012-2728	PACKING, PREFORMED (Bow Thruster Port S2) (28353) 333N	128	EA	1
253	5330-01-342-5716	PACKING, PREFORMED (Vestibule Vidmar Cabinets D2) (0SYN4) C1065-00375-A	128	EA	1
254	5330-00-126-5191	PACKING, PREFORMED (Vestibule Vidmar Cabinets D2) (92021) SP17-9	128	EA	1
255	5330-00-178-8602	PACKING, PREFORMED (Vestibule Vidmar Cabinets D3) (07524) 711940	128	EA	2
256	5330-00-178-8601	PACKING, PREFORMED (Vestibule Vidmar Cabinets) (07524) 701965	128	EA	2

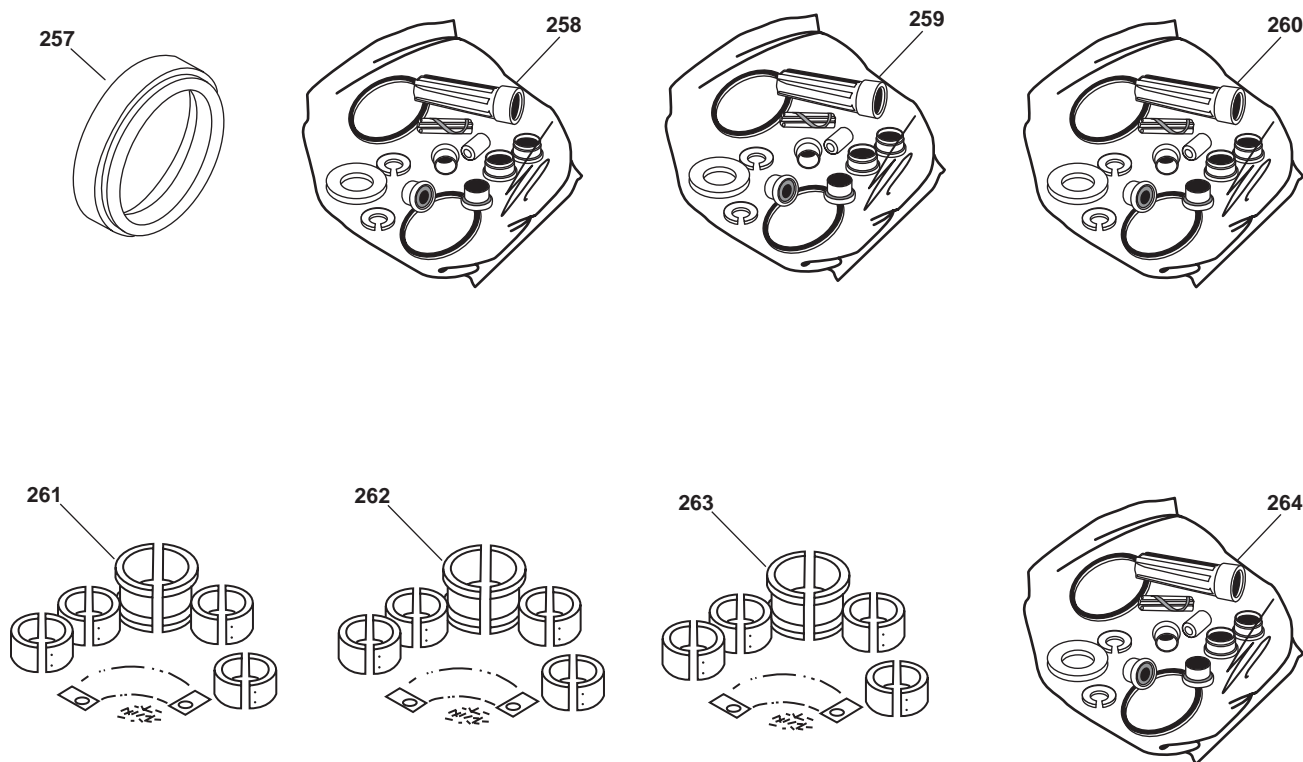


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
257	5330-01-022-8879	PACKING, PREFORMED (Vestibule Vidmar Cabinets) (08302) 10052	128	EA	2
258	4320-00-103-5655	PARTS KIT (Bosun's Locker) (76122) 14233	128	EA	1
259	4820-01-473-0988	PARTS KIT, BALL VALVE (Bosun's Locker) (92021) SPRTD--A--1	128	KT	1
260	4820-01-490-2069	PARTS KIT, BALL VALVE (Bosun's Locker) (92021) SPRTE1--A--1	128	KT	1
261	3120-01-353-4524	PARTS KIT, BEARING (Bow Thruster Port S3) (0UDU7) PK933	128	KT	1
262	3120-01-339-0861	PARTS KIT, BEARING (Bow Thruster Port S3) (72915) 8455081	128	KT	1
263	3120-01-339-8990	PARTS KIT, BEARING (Bow Thruster Port S3) (72915) 8455083	128	KT	1
264	4130-01-130-2238	PARTS KIT, DEHYDRATOR (Bosun's Locker) (70255) X10574-1	128	EA	1

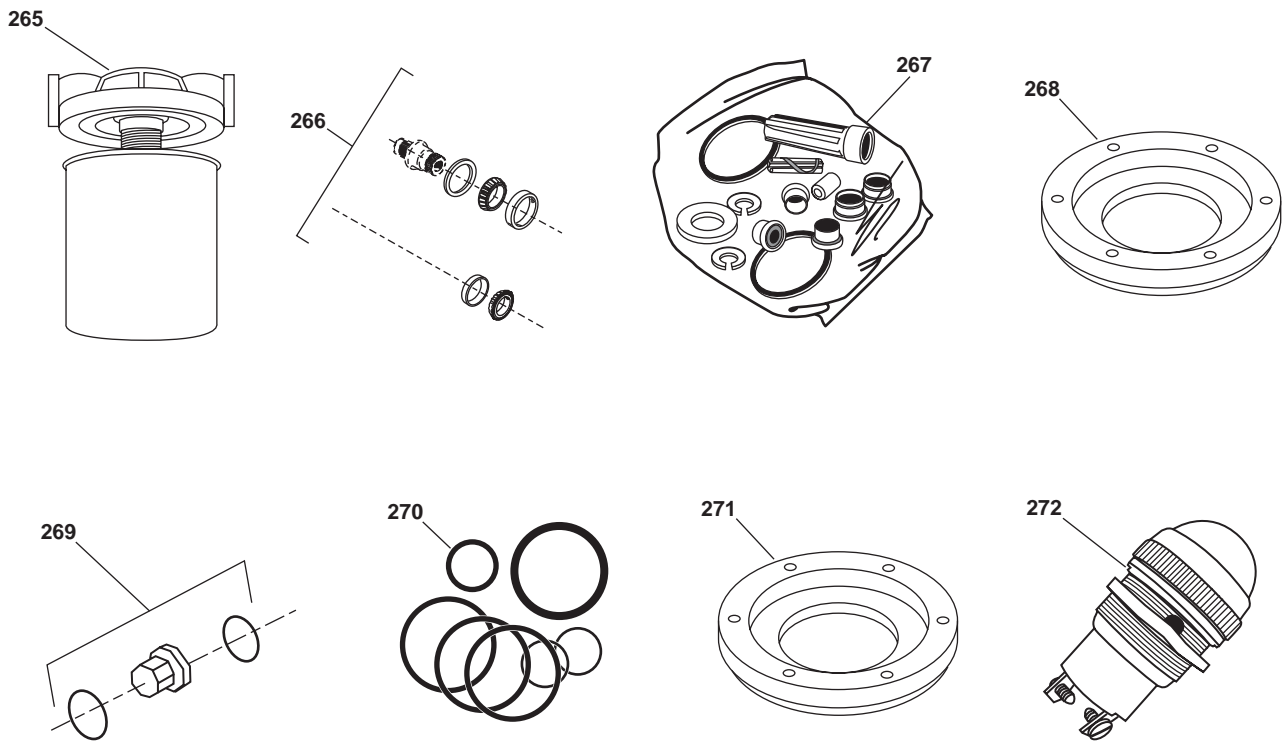


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
265	4330-01-342-2457	PARTS KIT, FLUID PRESSURE FILTER (AMS 1 CAB 2) (2P293) 174176	128	EA	1
266	3040-01-454-9300	PARTS KIT, GEARBOX (Bow Thruster Port S1) (64462) 641013	128	EA	1
267	4320-00-119-3802	PARTS KIT, ROTARY PUMP (Bosun's Locker) (45396) 14010242	128	EA	1
268	4320-01-275-5257	PARTS KIT, SEAL REPLACEMENT (Bosun's Locker) (08302) 61690	128	KT	1
269	5330-01-468-4194	PARTS KIT, SEAL REPLACEMENT (Bosun's Locker) (1BZ02) B652090002	128	KT	4
270	5330-01-312-3869	PARTS KIT, SEAL REPLACEMENT (Bosun's Locker) (23233) PK931	128	KT	1
271	5330-01-343-8789	PARTS KIT, SEAL REPLACEMENT, MECH EQUIP (Vestibule Vidmar Cabinets D3) (77640) SK000092	128	EA	1
272	6620-01-529-8811	PILOT LIGHT, GREEN (Vestibule Vidmar Cabinets) (63544) 2450-00348	128	EA	1

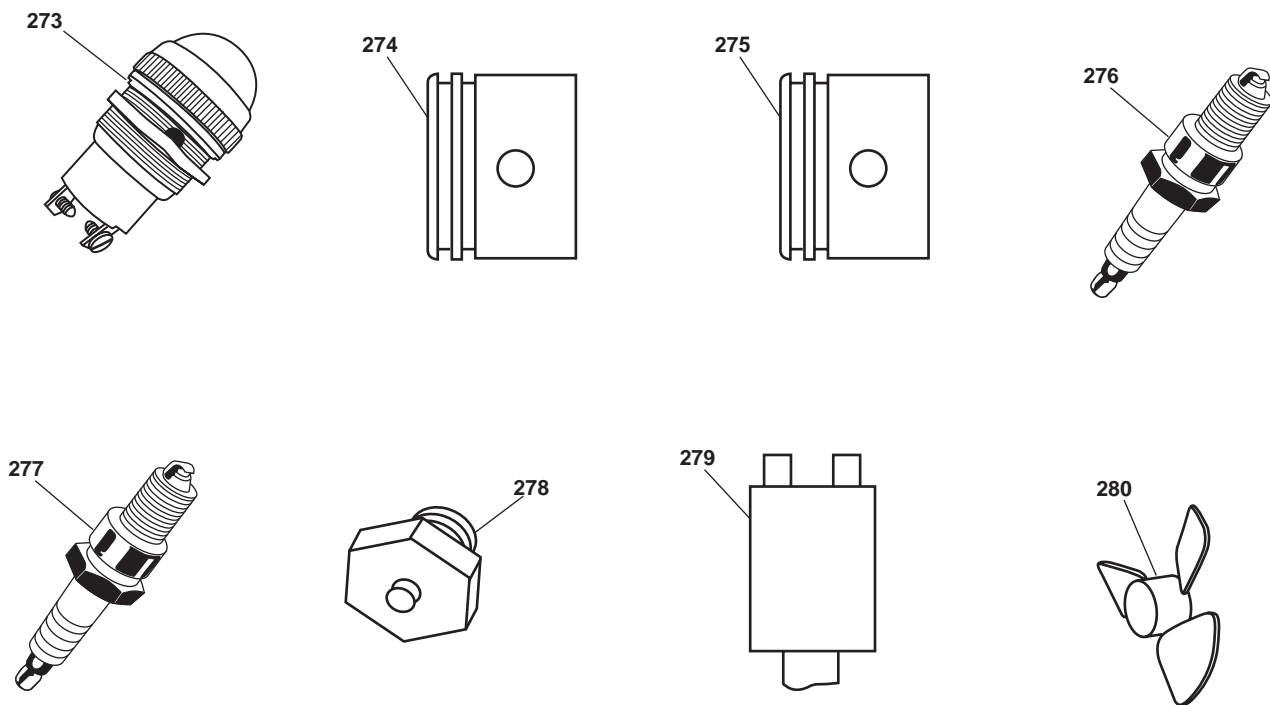


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
273		PILOT LIGHT, RED (Vestibule Vidmar Cabinets) (63544) 2450-00347	128	EA	1
274	4730-01-528-5087	PLUG, END, DOUBLE PORT (Vestibule Vidmar Cabinets) (1BZ02) 2453512400	128	EA	1
275	5365-01-528-8637	PLUG, END, SINGLE PORT (Vestibule Vidmar Cabinets) (1BZ02) 2453502400	128	EA	1
276	2920-01-142-3174	PLUG, SPARK (Vestibule Vidmar Cabinets D2) (70040) R42CXL	128	EA	4
277	2920-01-352-3752	PLUG, SPARK (Vestibule Vidmar Cabinets D2) (0B231) QL78C	128	EA	1
278	4330-01-528-6826	PROBE ASSEMBLY (Vestibule Vidmar Cabinets) (55752) RK 18225	128	EA	1
279	4620-01-528-6275	PROBE, SALINITY (Vestibule Vidmar Cabinets) (1BZ02) B511080001	128	EA	2
280	4140-01-528-8821	PROPELLER (Vestibule Vidmar Cabinets) (10855) LA01RA028	128	EA	1

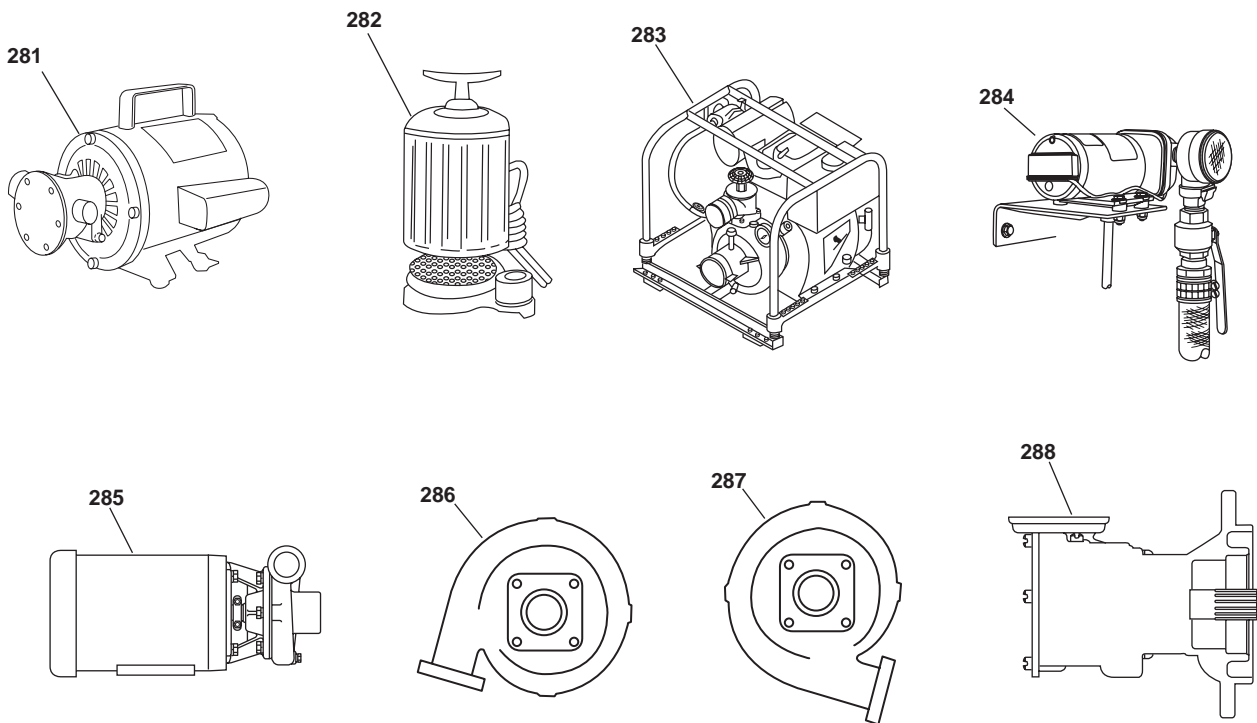


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
281	4320-00-986-7312	PUMP UNIT, CENTRIFUGAL (Machine Shop D8) (31425) 11810-0003	128	EA	1
282	4320-00-437-0046	PUMP UNIT, CENTRIFUGAL ELECTRICAL SUBM (Towing Gear Locker) (39428) 4327K4	128	EA	2
283	4320-01-387-2869	PUMP UNIT, CENTRIFUGAL (Bow Thruster Compartment) (15852) 2BE10YDN	128	EA	2
284	4320-01-528-8738	PUMP, 4.3 GPM (Bow Thruster Compartment) (31425) 31620-0094	128	EA	1
285	4320-01-336-1422	PUMP, CENTRIFUGAL (Bow Thruster Port S1) (76122) MP-110	128	EA	1
286	4320-01-339-5152	PUMP, CENTRIFUGAL (Bow Thruster Port S4) (72915) 8269664	128	EA	2
287	4320-01-339-7884	PUMP, CENTRIFUGAL (Bow Thruster Port S4) (72915) 9336390	128	EA	2
288	4320-01-202-5609	PUMP, CENTRIFUGAL (Bow Thruster STBD S2) (11083) 5N9356	128	EA	1

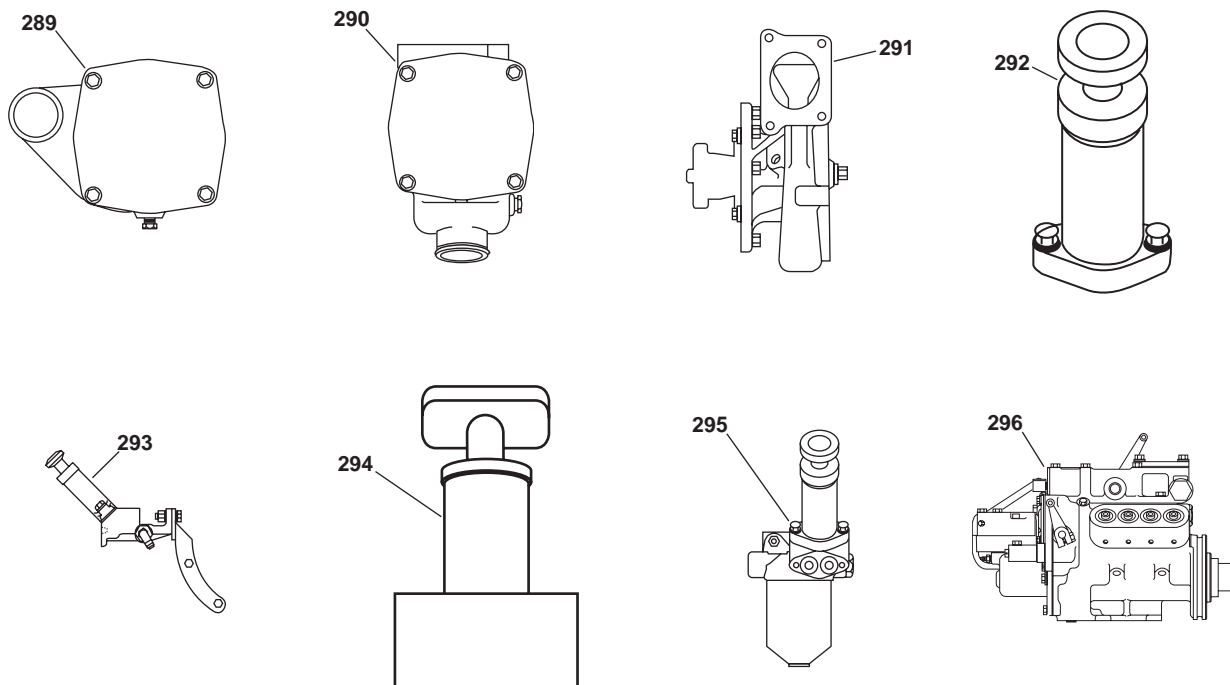
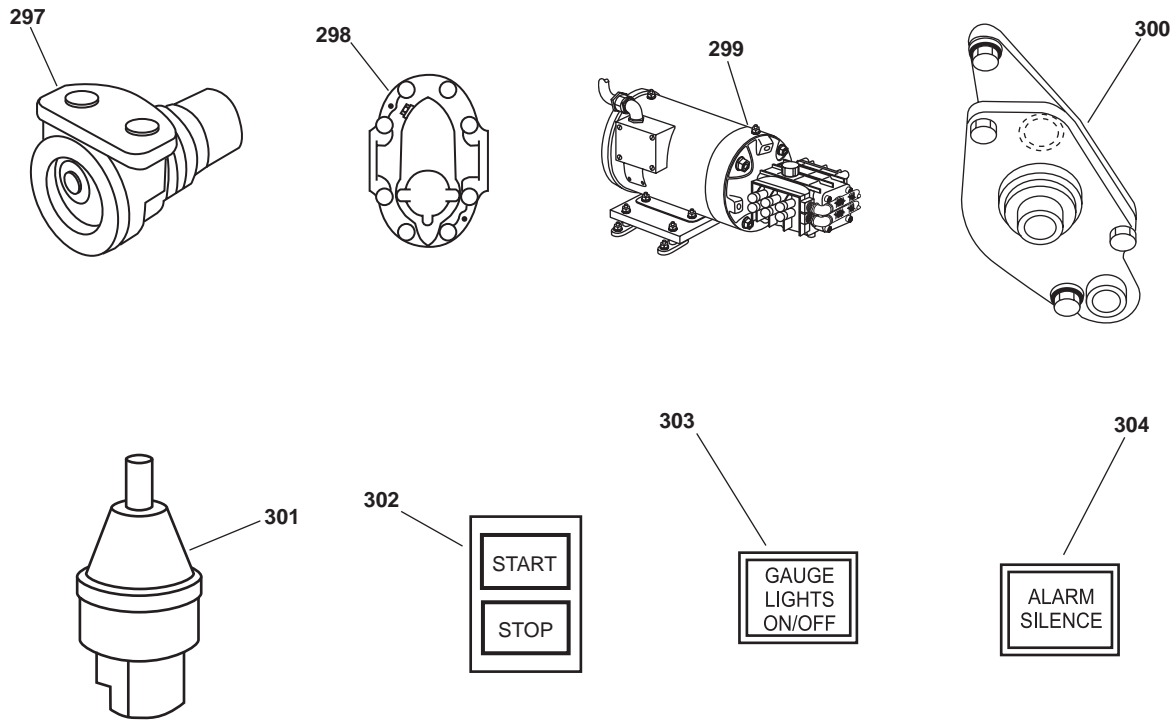


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
289	4320-01-202-5611	PUMP, CENTRIFUGAL (Bow Thruster STBD S3) (11083) 1727771	128	GP	2
290	2930-01-216-9420	PUMP, COOLING SYSTEM, ENGINE (Bow Thruster Compartment) (11083) 2W8001	128	EA	1
291	2930-01-199-8071	PUMP, COOLING SYSTEM, ENGINE (Bow Thruster Compartment) (11083) 4N1951	128	EA	1
292	2910-01-021-1845	PUMP, ENGINE PRIMING, HAND DRIVEN (Bow Thruster STBD S2) (11083) 1052508	128	EA	1
293	2910-01-339-7959	PUMP, ENGINE PRIMING, HAND DRIVEN (Bow Thruster Compartment) (11083) 4W9838	128	EA	1
294	2910-01-340-0393	PUMP, ENGINE PRIMING, HAND DRIVEN (Bow Thruster Compartment) (11083) 8N3365	128	EA	1
295	2910-01-340-0392	PUMP, ENGINE PRIMING, HAND DRIVEN (Bow Thruster Compartment) (11083) 8N5251	128	EA	1
296	2910-01-289-2257	PUMP, FUEL METERING (Bow Thruster STBD S2) (11083) 4N1101	128	EA	1



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
297	2910-01-268-2316	PUMP, FUEL (Bow Thruster Compartment) (72915) 8410219	128	EA	1
298	4320-00-366-2974	PUMP, OIL LUBRICATING (Bosun's Store Room S1) (72915) 8084556	128	AY	1
299	4320-01-472-6430	PUMP, RECIPROCATING (Bow Thruster Compartment) (1BZ02) 12180512CO	128	EA	1
300	4320-01-163-3545	PUMP, RECIPROCATING (Bow Thruster Port S1) (11083) 1W1695	128	EA	1
301	4320-01-103-8054	PUMP, ROTARY (Tool Cage EOS A3) (88758) 34401	128	EA	1
302	5930-01-322-1896	PUSHBUTTON, DOUBLE (Vestibule Vidmar Cabinets) (57715) QDD-111/110/K11	128	EA	1
303	5930-01-528-8817	PUSHBUTTON, MAINTAIN (Vestibule Vidmar Cabinets) (63544) 5100-00569	128	EA	1
304	5930-01-528-8806	PUSHBUTTON, MOMENTARY (Vestibule Vidmar Cabinets) (63544) 5100-00568	128	EA	1

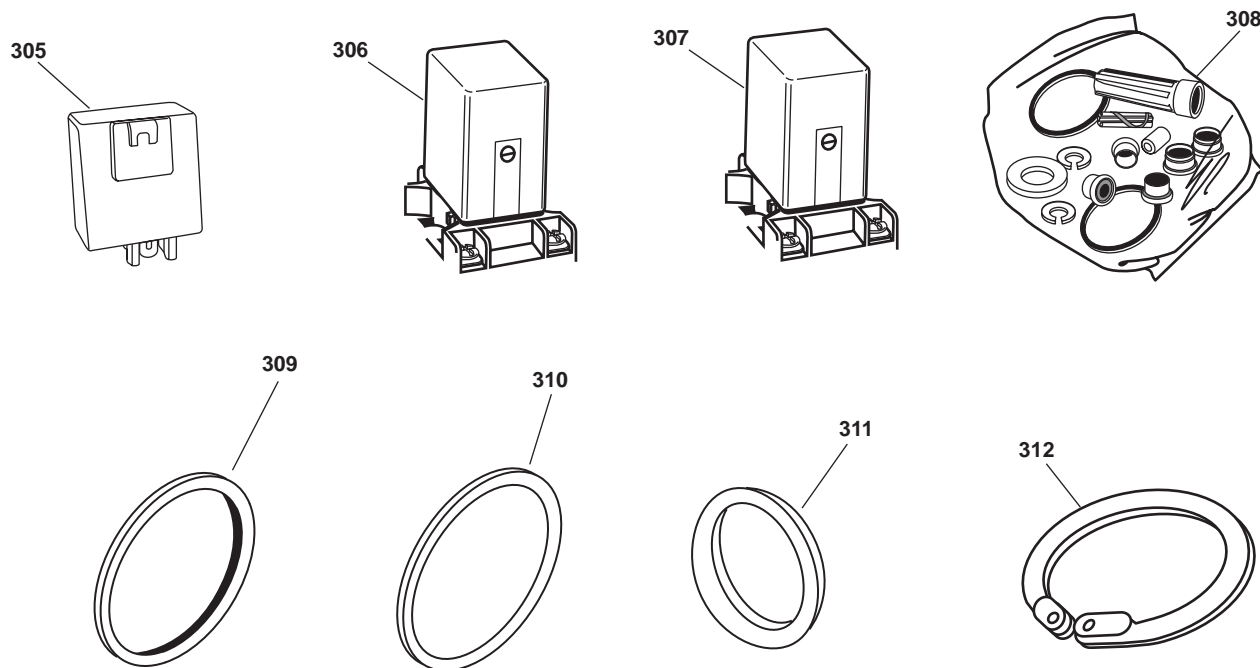


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
305	5945-01-528-8792	RELAY (TDR) (Vestibule Vidmar Cabinets) (10855) HN67KA071	128	EA	1
306	5945-01-414-9287	RELAY, ELECTROMAGNET (Vestibule Vidmar Cabinets) (09051) GI-RH2BU	128	EA	3
307	5945-00-258-3096	RELAY, ELECTROMAGNET (Vestibule Vidmar Cabinets) (56365) 8501JN2	128	EA	1
308		REPAIR KIT, BLOWER (Bow Thruster Compartment) (3E174) 65-102-ORK	128	EA	1
309	5330-01-342-5528	RETAINER, PACKING (Vestibule Vidmar Cabinets D2) (62854) 01-400-0120	128	EA	1
310	5330-01-342-5527	RETAINER, PACKING (Vestibule Vidmar Cabinets D2) (62854) 01-400-0140	128	EA	1
311	5330-01-295-4720	RETAINER, PACKING (Vestibule Vidmar Cabinets D3) (96151) 7382	128	EA	1
312	5325-00-454-0458	RING, RETAINING (Vestibule Vidmar Cabinets D3) (90005) 572946	128	EA	2



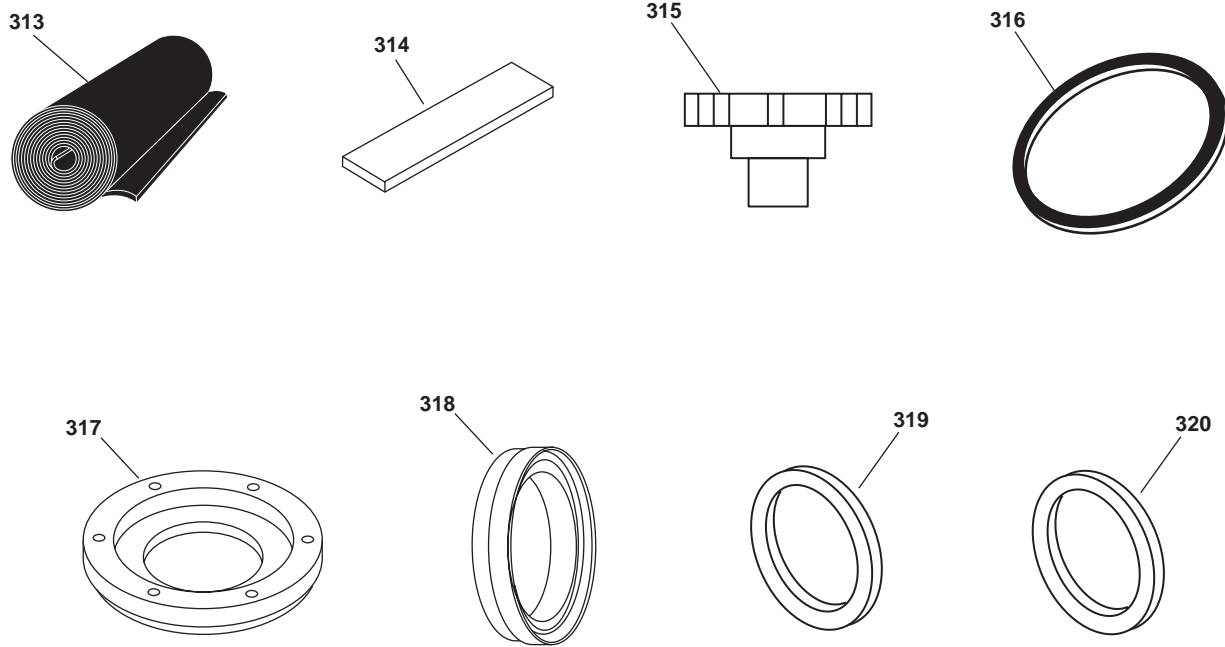


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
313	5330-01-037-6369	RUBBER SHEET, SOLID (Bosun's Locker) (81349) MIL-G-1149	128	SH	1
314	5330-01-342-7544	RUBBER STRIP (DC Main Deck S15) (10855) 99SR011612600001	128	EA	10
315	4310-01-528-6651	SCREW, BLEED, PREFILTER (Vestibule Vidmar Cabinets) (1BZ02) 07620301WA-05	128	EA	2
316	5330-00-545-3145	SEAL (Vestibule Vidmar Cabinets) (72915) 8228321	128	EA	1
317	4320-00-704-3552	SEAL ASSEMBLY, SHAFT (Tool Cage EOS B1) (58923) G14-229	128	EA	1
318	4320-01-340-2109	SEAL ASSY, SHAFT, SPRING LOADED (Bow Thruster Port S1) (07524) 332920	128	EA	1
319	5330-01-177-7960	SEAL (Bow Thruster Port S1) (96151) 9049-1	128	EA	1
320	5330-01-178-1589	SEAL (Bow Thruster Port S1) (96151) 9050	128	EA	1

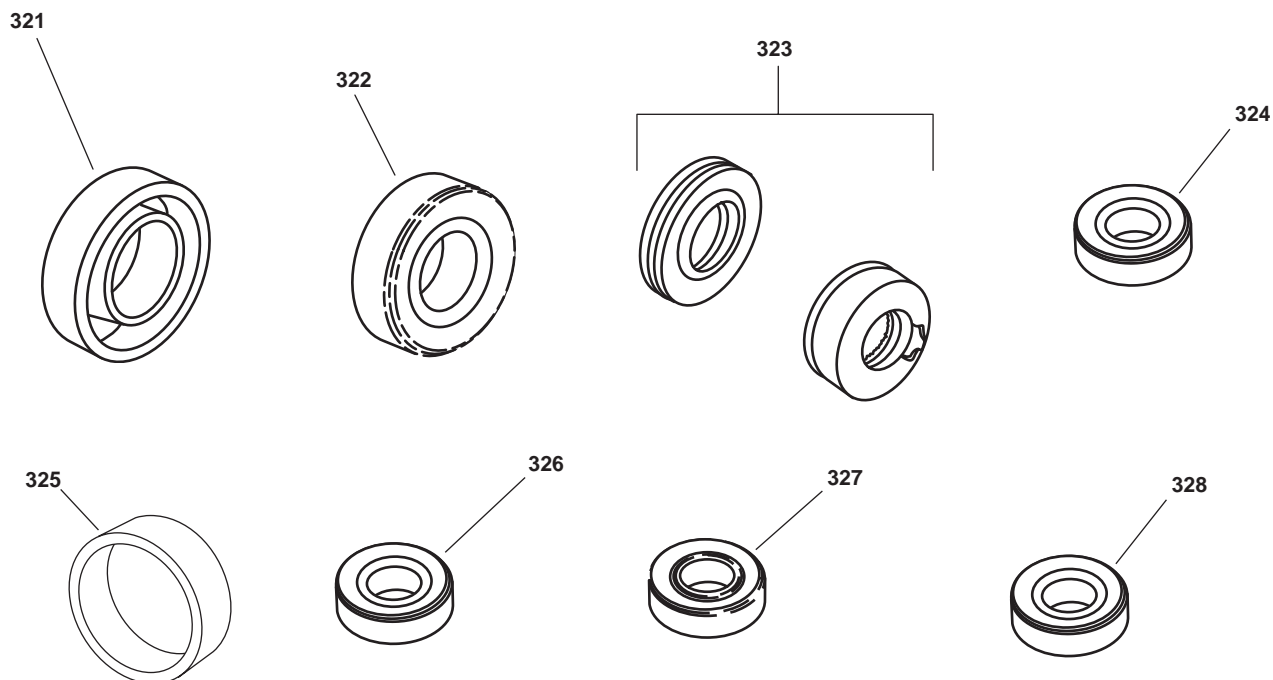


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
321	5330-00-178-8574	SEAL (Machine Shop D9) (07524) 331934	128	EA	1
322	5330-01-178-1586	SEAL (Vestibule Vidmar Cabinets) (96151) 14559-006	128	EA	4
323	4320-01-320-5906	SEAL, ASSEMBLY, SHAFT, SPRING LOADED (Vestibule Vidmar Cabinets D3) (45396) 14032695	128	EA	1
324	5330-00-146-7307	SEAL, OIL (Vestibule Vidmar Cabinets) (04579) 712-6322-653	128	EA	1
325	5330-01-469-1838	SEAL, PLAIN (Vestibule Vidmar Cabinets) (1BZ02) 12180510CO-21	128	EA	12
326	5330-01-342-3532	SEAL, PLAIN ENCASED (Machine Shop D9) (04579) 712-3585-773	128	EA	1
327	5330-01-339-8819	SEAL, PLAIN ENCASED (Machine Shop D9) (04579) 712-6321-653	128	EA	1
328	5330-01-340-5558	SEAL, PLAIN (Machine Shop D9) (18930) 2Z129	128	EA	1

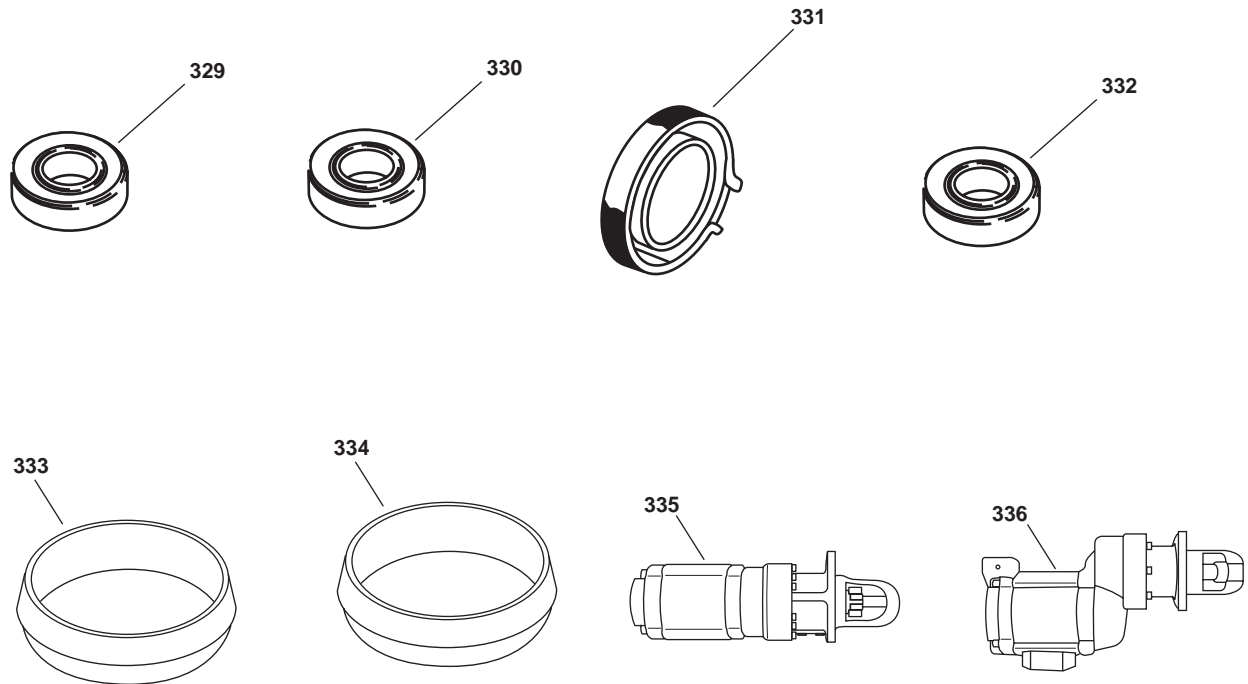


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
329	5330-01-295-4662	SEAL, PLAIN (Vestibule Vidmar Cabinets) (96151) 9057-9	128	EA	1
330	5330-01-219-7048	SEAL, PLAIN (Vestibule Vidmar Cabinets) (96151) 9121-1	128	EA	1
331	5330-01-343-2647	SEAL, PLAIN (Vestibule Vidmar Cabinets D3) (62854) 01-4050490	128	EA	1
332	5330-01-096-0912	SEAL, SPECIAL (Vestibule Vidmar Cabinets) (11083) 7J204	128	EA	2
333	4730-01-060-6150	SLEEVE, COMPRESSION, TUBE-HOSE FITTING (Vestibule Vidmar Cabinets) (02570) SS-400-SET	128	EA	10
334	4730-01-060-6151	SLEEVE, COMPRESSION, TUBE-HOSE FITTING (Vestibule Vidmar Cabinets) (02570) SS-600-SET	128	EA	10
335	2990-00-891-8441	STARTER, ENGINE, AIR (Larzarette) (64104) 701101	128	EA	2
336	2990-01-291-1794	STARTER, ENGINE, AIR (Tool Gage EOS A2) (11083) 6N4147	128	EA	1

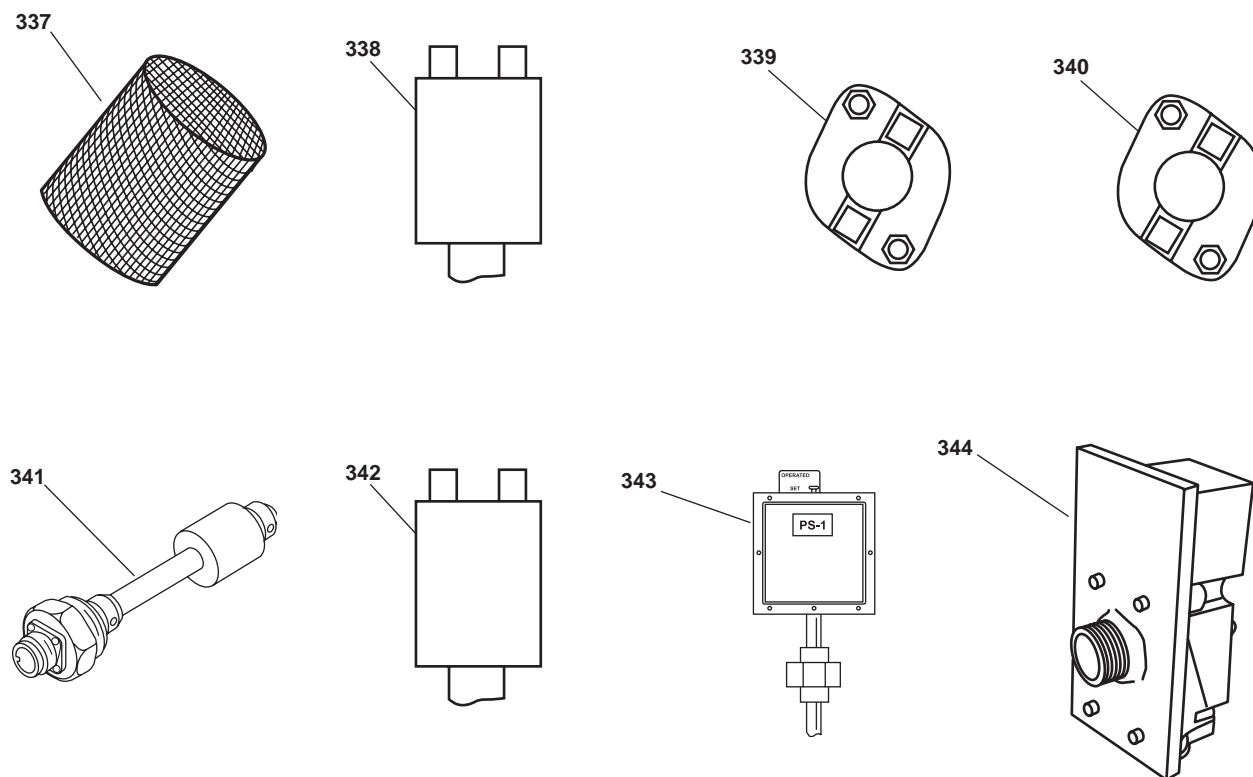


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
337	2910-00-106-1809	STRAINER ELEMENT SE (Bow Thruster Port S1) (08300 ) FG1B	128	EA	4
338	5930-01-528-6706	SWITCH, HIGH PRESSURE (Bosun's Locker) (1BZ02) 2321020458	128	EA	1
339	5930-01-529-2397	SWITCH, LIMIT (Vestibule Vidmar Cabinets) (10855) 2PL-165	128	EA	1
340	5930-01-528-8889	SWITCH, LIMIT (Vestibule Vidmar Cabinets) (10855) L-165	128	EA	1
341	5930-01-347-0620	SWITCH, LIQUID LEVEL (Bow Thruster Port S1) (61397) MLS-3320-33-21101	128	EA	1
342	5930-01-528-6737	SWITCH, LOW PRESSURE (Vestibule Vidmar Cabinets) (1BZ02) 2301020658	128	EA	1
343	5930-01-157-5421	SWITCH, PRESSURE (Bosun's Locker) (0KDP7) 486536	128	EA	1
344	5930-01-528-8348	SWITCH, PROXIMITY (Bosun's Locker) (81782) D333-3882-A	128	EA	2

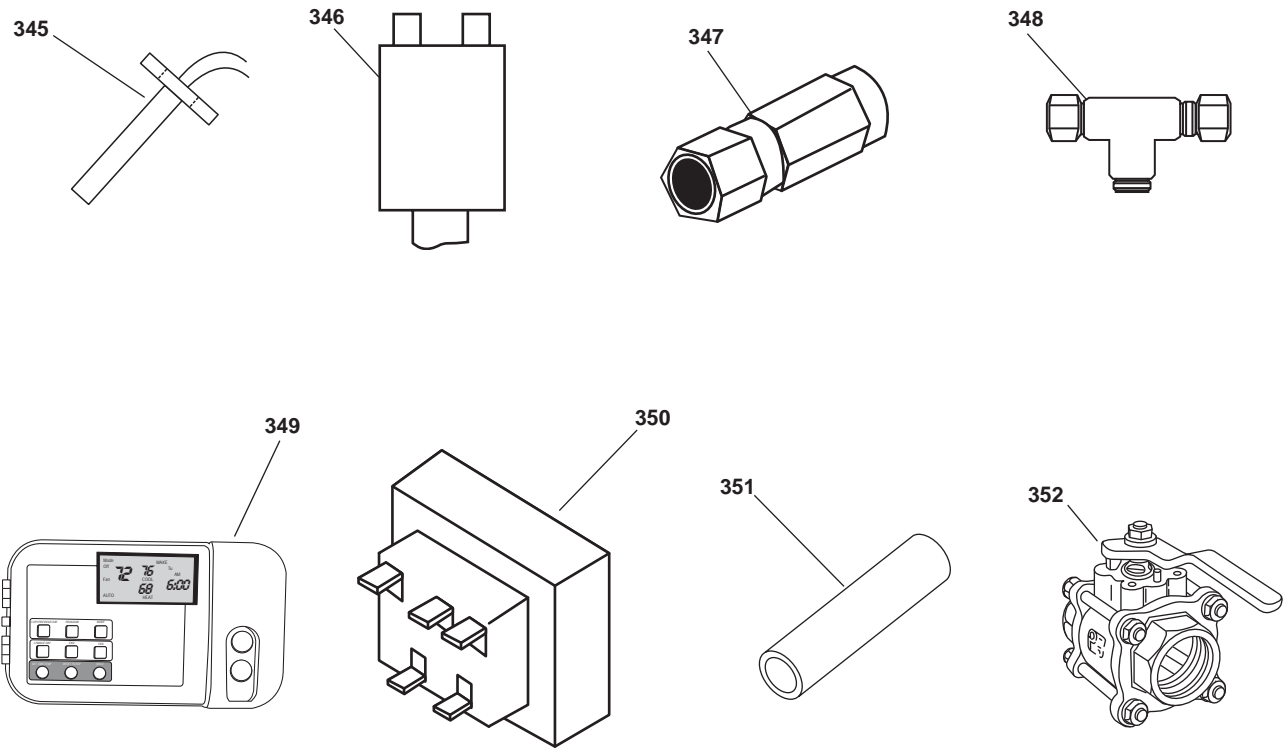
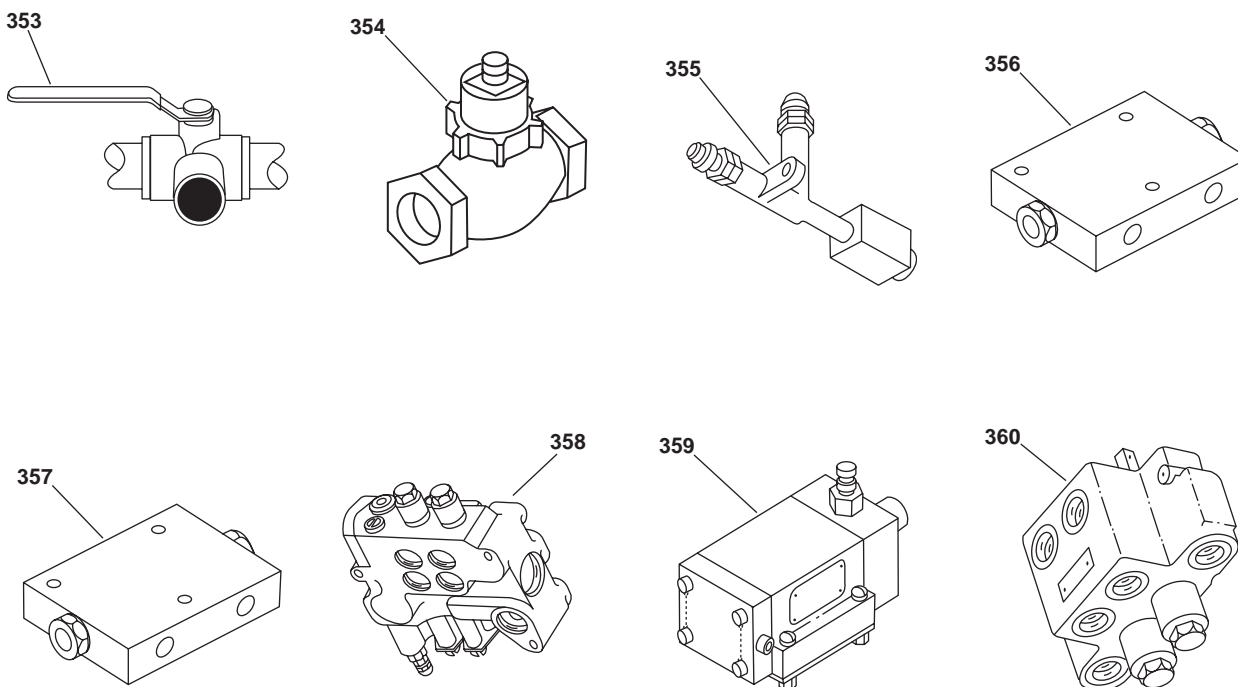


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
345	5930-01-528-8790	SWITCH, TEMPERATURE (Vestibule Vidmar Cabinets) (10855) HH18HA281	128	EA	1
346	6685-01-528-6740	SWITCH, VALVE MISALIGNMENT (Bosun's Locker) (05MH3) NS P1B 30J	128	EA	1
347	4730-01-528-5084	SWIVEL (Vestibule Vidmar Cabinets) (05MH5) AH40250-6-6	128	EA	2
348	4730-01-528-6671	TEE, NYLON, 3/4" FPT (Vestibule Vidmar Cabinets) (05MH3) TTT 34	128	EA	4
349	6685-01-528-8512	THERMOSTAT (Vestibule Vidmar Cabinets) (10855) TSTATCCPHP01-B	128	EA	1
350	5950-01-528-8796	TRANSFORMER (TRAN) (Vestibule Vidmar Cabinets) (10855) HT01BD242	128	EA	1
351	4710-01-344-1697	TUBING, NONMETALLIC (Bosun's Locker) (53214) 2011	128	EA	1
352	4820-01-296-5700	VALVE, BALL (Bow Thruster Port S2) (08576) 3035-13	128	EA	1



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
353	4820-01-347-8390	VALVE, BALL, 3 WAY, APOLLO (Bow Thruster Port S2) (21444) 2905090	128	EA	2
354	4820-01-348-7357	VALVE, CALIBRATED FLOW (Bosun's Locker) (09990) F800	128	EA	2
355	4820-01-342-2474	VALVE, FLOW CONTROL (Bosun's Locker) (88233) V500P8SB	128	EA	1
356	4820-01-248-5111	VALVE, LINEAR DIRECT (Bosun's Locker) (OSM11) F011-111 ITEM 5	128	EA	1
357	4820-01-248-8880	VALVE, LINEAR DIRECT (Bow Thruster Port S1) (88233) M000-20362	128	EA	1
358	4820-01-306-4571	VALVE, LINEAR DIRECT (Machine Shop D8) (88233) 41462-1000	128	EA	1
359	4820-01-248-8879	VALVE, LINEAR DIRECT Vestibule Vidmar Cabinets D2) (88233) M000-20287	128	EA	1
360	4820-01-342-2966	VALVE, LINEAR, DIRECTIONAL CONTROL (Bow Thruster Port S1) (0A0L9) F041-0004	128	EA	1

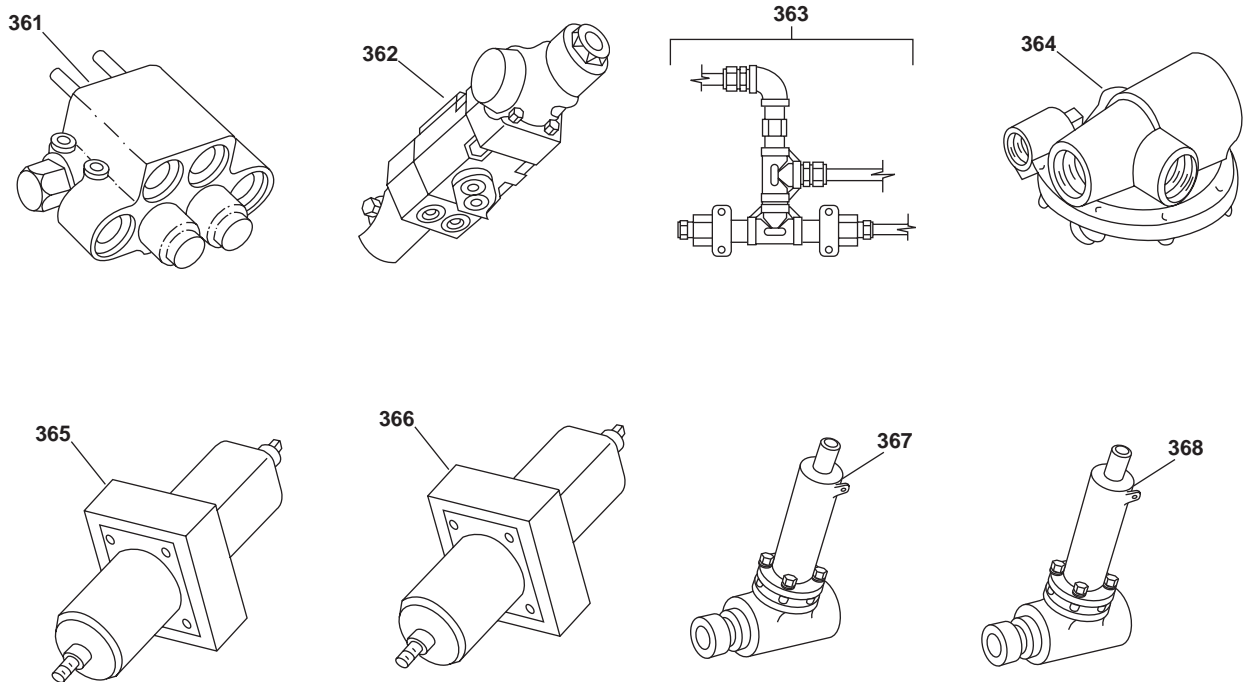
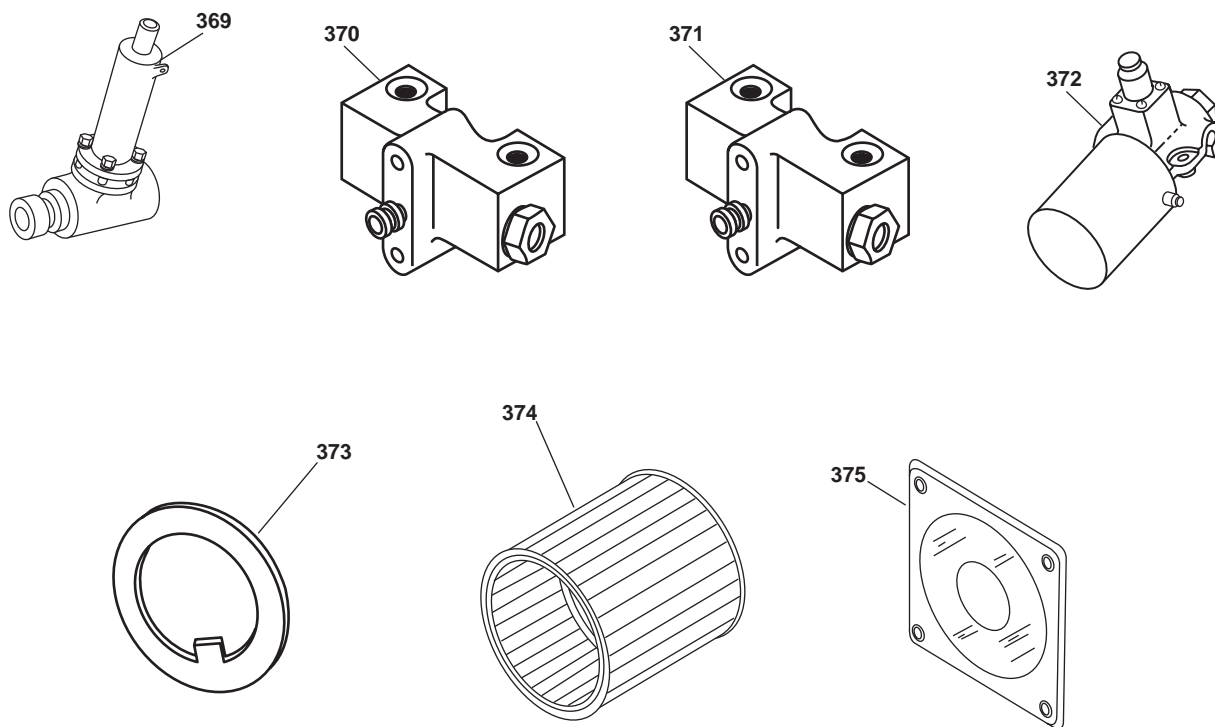


Table 2. On Board Spares List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
361	4820-01-348-7415	VALVE, LINEAR, DIRECTIONAL CONTROL (Bow Thruster Port S1) (21444) 2907331	128	EA	2
362	4820-01-348-1602	VALVE, LINEAR, DIRECTIONAL CONTROL (Bow Thruster Port S1) (21444) 916620	128	EA	2
363	4810-01-528-6745	VALVE, SOLENOID (Bosun's Locker) (1BZ02) 1401095998	128	EA	1
364	4820-01-347-6074	VALVE, REGULATING, FLUID PRESSURE (Bow Thruster Compartment) (21444) 2905178	128	EA	2
365	4820-01-444-6777	VALVE, REGULATING, TEMPERATURE (Bow Thruster Port S2) (72915) 9566855	128	EA	1
366	4820-01-349-8555	VALVE, REGULATING, TEMPERATURE, 3-WAY (Bow Thruster Port S2) (21444) 916647	128	EA	2
367	4820-01-182-6703	VALVE, SAFETY RELIEF (Bosun's Locker) (02570) SS-8CPA2-3	128	EA	1
368	4820-01-227-1010	VALVE, SAFETY RELIEF (Fan Room Port) (88233) H172-106	128	EA	1



**Table 2. On Board Spares List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
369	4820-01-347-8384	VALVE, SAFETY RELIEF, 120 PSI (Bow Thruster STBD S4) (21444) 916322	128	EA	2
370	4820-01-342-0576	VALVE, SHUTTLE (Bow Thruster Port S2) (88233) 3650-9001	128	EA	1
371	4810-01-342-0574	VALVE, SOLENOID (Bosun's Locker) (63269) 1500A-10	128	EA	1
372	4810-01-342-0573	VALVE, SOLENOID (Bow Thruster Port S2) (63269) M018A43	128	EA	1
373	5310-01-342-7255	WASHER, KEY (Vestibule Vidmar Cabinets) (53214) 2012	128	EA	1
374	4140-01-528-8814	WHEEL, BLOWER (Vestibule Vidmar Cabinets) (10855) LA22LA025	128	EA	1
375	5355-01-367-0556	WINDOW, DIAL (Paint Locker Main Deck) (63269) 1500A-14	128	EA	1



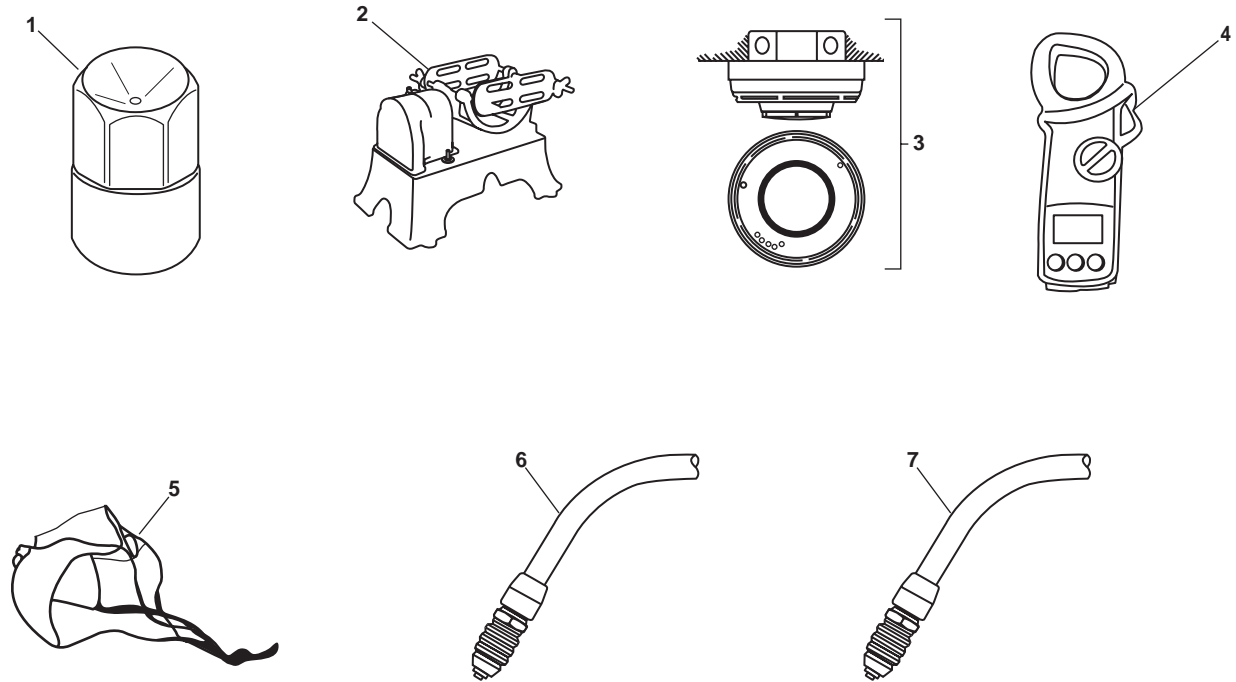


Table 3. Basic Issue Item List

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
1	5120-00-132-0399	ADAPTER, METRIC CONVERSION SET SET (Machine Shop D10) (95021) VM820	128	EA	1
2	4940-01-320-5391	AGITATOR, PAINT, SHAKER 1/2 HP 1/2 HP MOTOR (Machine Shop Cab D) (39428) 9584T12	128	EA	1
3	6350-01-398-8940	ALARM, SMOKE, AUTOMATIC (Fitted) (56914) 2002	128	EA	4
4	6625-01-354-7300	AMMETER (DC Locker) (58935) DSA-2003	128	EA	1
5	2040-00-222-3729	ANCHOR, SEA 36 X 70 (Fitted) (81340) MMI562	128	EA	1
6	4210-00-372-0865	APPLICATOR, NOZZLE, FOG, 10' (Main Deck, Aft Stbd Bkhd; Forcastle, FWD) (00912) 2072-US-0-1-03-004	128	EA	2
7	4210-00-372-0864	APPLICATOR, NOZZLE, FOG, 4' (Eng Rm, Amidship; 01 Deck Passageway) (80064) 803-5959223ASSY98	128	EA	2

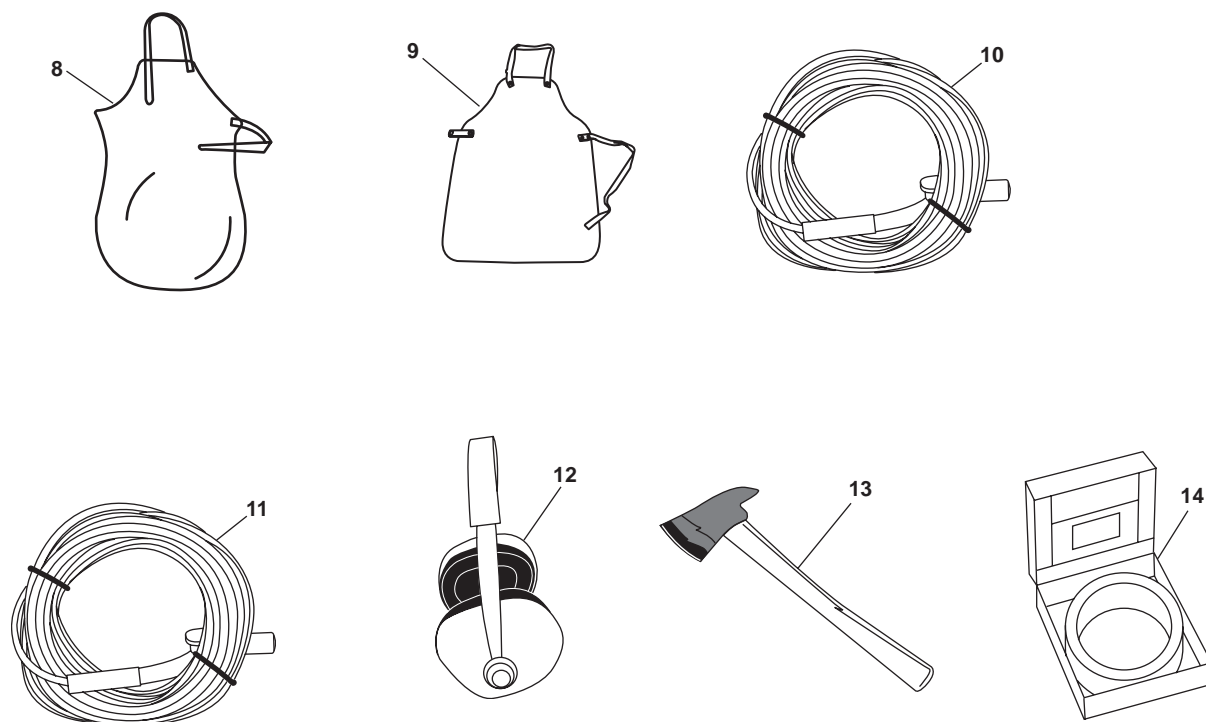


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
8	8415-00-082-6108	APRON, UTILITY (DC Main Deck DE) (64067) 8415-00-082-6108	128	EA	1
9	8415-00-250-2531	APRON, WELDER'S (DC Main Deck DE) (58536) A-A-55098	128	EA	2
10	5120-00-273-0083	AUGER, PIPE & SEWER, 1/4" X 25' LG, TYPE 4, CLASS 1 (Machine Shop D8) (98031) 4619	128	EA	1
11	5120-00-595-8162	AUGER, PIPE & SEWER, HAND, HAND, HEAVY DUTY, 1/2" X 50' (Machine Shop D8) (81348) GGG-A-821	128	EA	1
12	4240-00-022-2946	AURAL PROTECTOR, SOUND, TYPE 2 (Machine Shop D5) (58536) A-A-58084	128	EA	12
13	4210-00-142-4949	AXE, PICK HEAD, 6 LBS, TYPE 2 (Fan Room Main Deck) (15852) GGG A926TYPE2	128	EA	6
14	6605-00-240-5599	AZIMUTH CIRCLE MK 4 MOD 1 (Bosuns Store Room S29) (81349) MIL-C-24230	128	EA	2

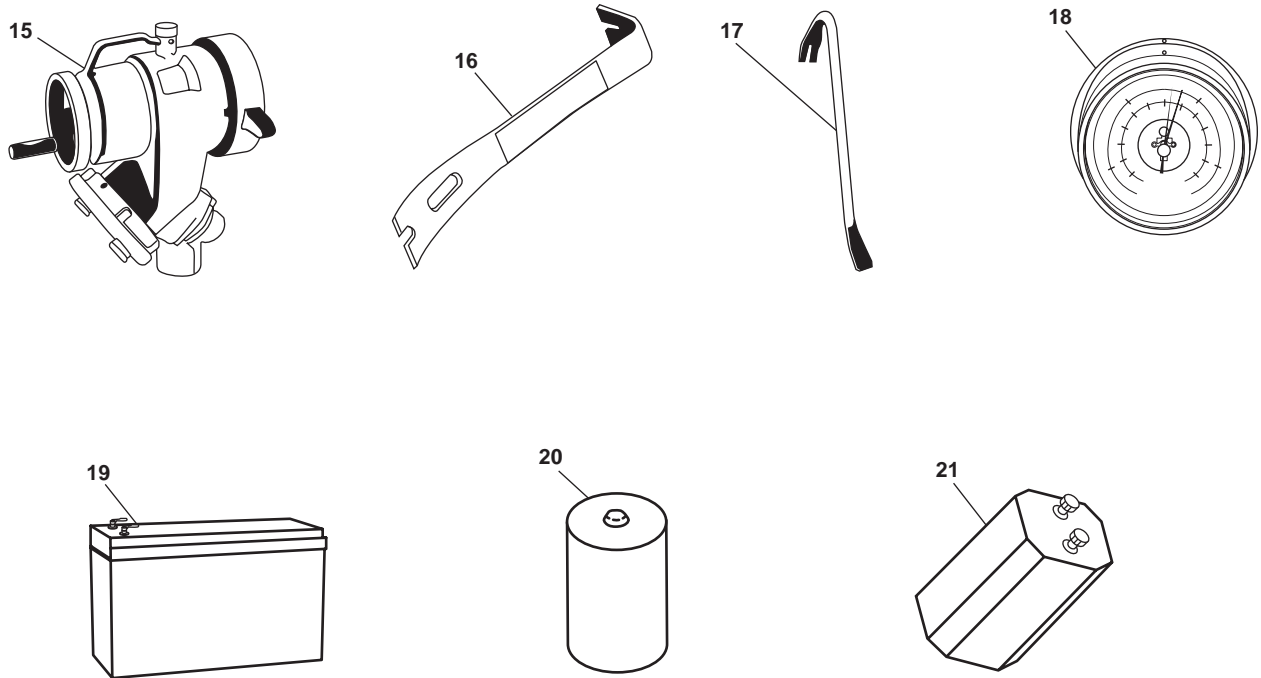


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
15	4210-01-038-6001	BALL, VALVE, PORTED (Fan Room Port) (20266) BG104	128	EA	1
16	5120-00-224-1372	BAR, PRY, OFFSET, 3/4" DIA, 26 IN LONG, TYPE 3, SZ 3 (Machine Shop, AMS2) (79202) 15840	128	EA	2
17	5120-00-293-0665	BAR, WRECKING, 30 IN, SIZE 4, TYPE 5, CLASS 1, STYLE A (Machine Shop D9) (1CV05) 55-130	128	EA	3
18	6660-00-075-6666	BAROMETER, ANEROID WEATHER IND GROUP (Arms Room) (59310) 2237MB	128	EA	2
19	6130-01-529-4545	BATTERY PACK, AUXILIARY, 12-VOLT (DC Locker) (1XRW6) RBP1270	128	EA	1
20	6135-00-100-0413	BATTERY, NONRECHARGEABLE (Bow Thruster Port S3) (77542) 942	128	EA	6
21	6140-00-295-1760	BATTERY, DRY STORAGE 12V U/D (Bosun's Locker) (96906) MS91325-243	128	EA	2

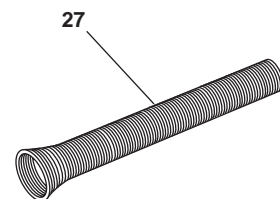
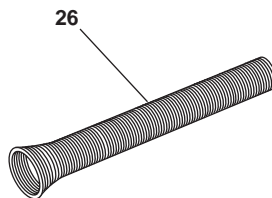
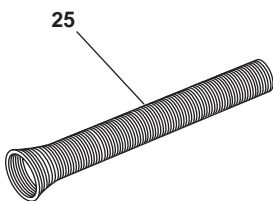
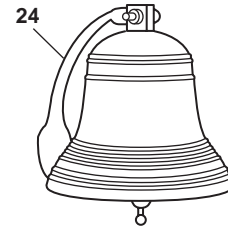
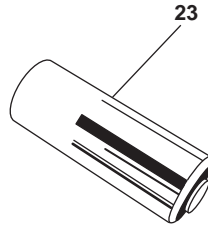
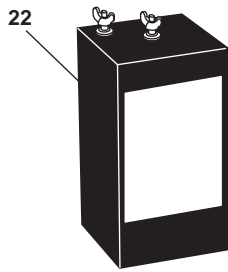


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
22	6135-01-440-1158	BATTERY, NONRECHARGEABLE (FOR TOW NAVIGATION LIGHT) (Bosun's Locker) (4V785) 4065-0163	128	EA	20
23	6140-01-529-4531	BATTERY, SPOTLIGHT (DC Locker) (1XRW6) NG12V	128	EA	1
24	6350-00-256-9062	BELL, SHIP, 30 LBS 1 1-1/2 DIA DECK AND BULKHEAD (Bosun's Locker) (81349) D24673-5	128	EA	1
25	5120-00-234-8743	BENDER, TUBE, EXTERNAL COIL SPRING, 1/2 in (Machine Shop D1) (30327) 102-F-08	128	EA	1
26	5120-00-234-8739	BENDER, TUBE, EXTERNAL COIL SPRING, 1/4 in (Machine Shop D10) (30327) 102-F-04	128	EA	1
27	5120-00-234-8741	BENDER, TUBE, EXTERNAL COIL SPRING, 3/8 IN (Machine Shop Cab A) (30327) 102-F-06	128	EA	1

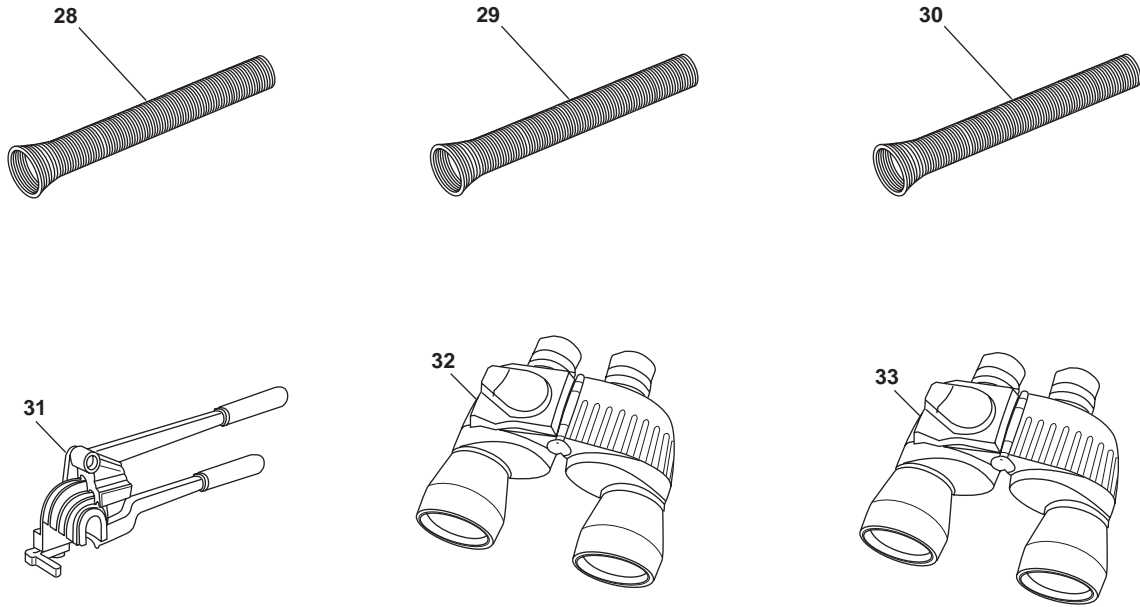


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
28	5120-00-234-8740	BENDER, TUBE, EXTERNAL COIL SPRING, 5/16 IN (Machine Shop D10) (30327) 102-F-05	128	EA	1
29	5120-00-234-8744	BENDER, TUBE, EXTERNAL COIL SPRING, 5/8 IN (Machine Shop, AMS2) (30327) 102-F-10	128	EA	1
30	5120-00-234-8742	BENDER, TUBE, EXTERNAL COIL SPRING, 7/16 IN (Machine Shop D1) (30327) 102-F-07	128	EA	1
31	5120-00-808-6191	BENDER, TUBE, HAND, MULTIPLE SIZE 3 (Machine Shop D2) (30327) 350-FHA	128	EA	1
32	6650-01-224-2555	BINOCULAR 7 X 50 (Arms Room) (12004) CIC7X50	128	EA	3
33	6650-00-530-0974	BINOCULAR 7 X 50, TYPE M17A1 (Arms Room) (81349) B13656TYPEM17A1	128	EA	4

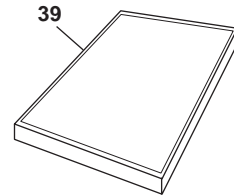
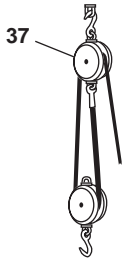
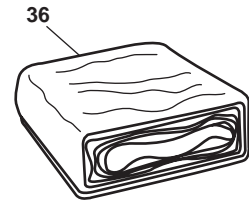
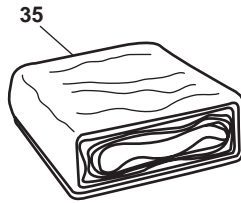
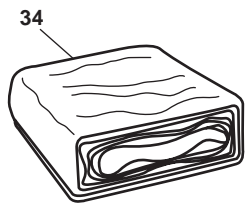


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
34	6545-00-911-1300	BLANKET SET, MEDICAL, FEDERAL SUP CAT, C-6545-IL (Medical Locker) (89875) C-6545-IL, VOL2	128	SE	4
35	6510-01-242-2271	BLANKET, BURN 72 IN. X 60 IN. (Medical Locker) (1BJ97) P7260-4P	128	EA	1
36	7210-00-715-7985	BLANKET, BED, WOOL (Linen Locker) (81349) MIL-B-844	128	EA	42
37	3940-00-820-5145	BLOCK, TACKLE, 4 1/2 IN SINGLE SHEAVE, 4800 LBS, 1/2 IN (Fan Room Main Deck) (96169) 62619-02X01PC31	128	EA	2
38	3940-00-068-9173	BLOCK, TACKLE, 4 1/2" DOUBLE SHEAVE 5100 (Fan Room Main Deck) (81348) GGG-B-490	128	EA	2
39	7330-00-078-5706	BOARD, FOOD CHOPPING AND SLICING, 15 X 20 X 3/4" (Galley) (80244) 7330-00-078-5706	128	EA	1

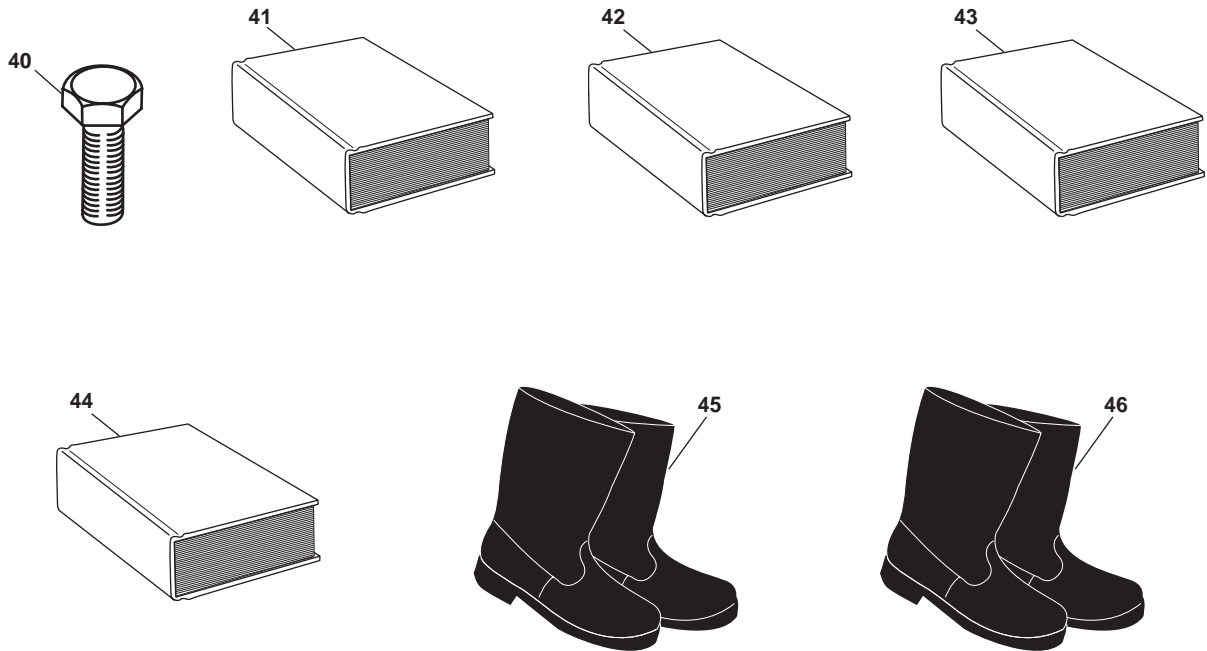


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
40	5306-01-151-1684	BOLT, SPECIAL, PLATE SHACKLE (Tool Cage EOS A2) (97403) 13226E2128	128	EA	1
41	7610-00-263-9714	BOOK, MODERN ENGRS MANUAL, VOL 1 (DC Main Deck) (No CAGE) 7610-00-263-9714	128	EA	1
42	7610-00-263-9715	BOOK, MODERN ENGRS MANUAL, VOL 2 (DC Main Deck) (No CAGE) 7610-00-263-9715	128	EA	1
43	7610-00-244-8719	BOOK, MODERN SEAMANSHIP VOL 1 (Arms Room) No Part Number	128	EA	1
44	7610-00-263-9737	BOOK, AMERICAN ELEC HANDBOOK, ELECTRICIANS (DC Locker) No Part Number	128	EA	1
45	8430-00-753-5942	BOOT'S FIREMEN'S SZ 12 (DC Locker) (58536) A-A-50371 (SZ12)	128	PR	7
46	8430-00-753-5944	BOOT'S FIREMEN'S SZ 14 (DC Locker) (58536) A-A-50371 (SZ14)	128	PR	7

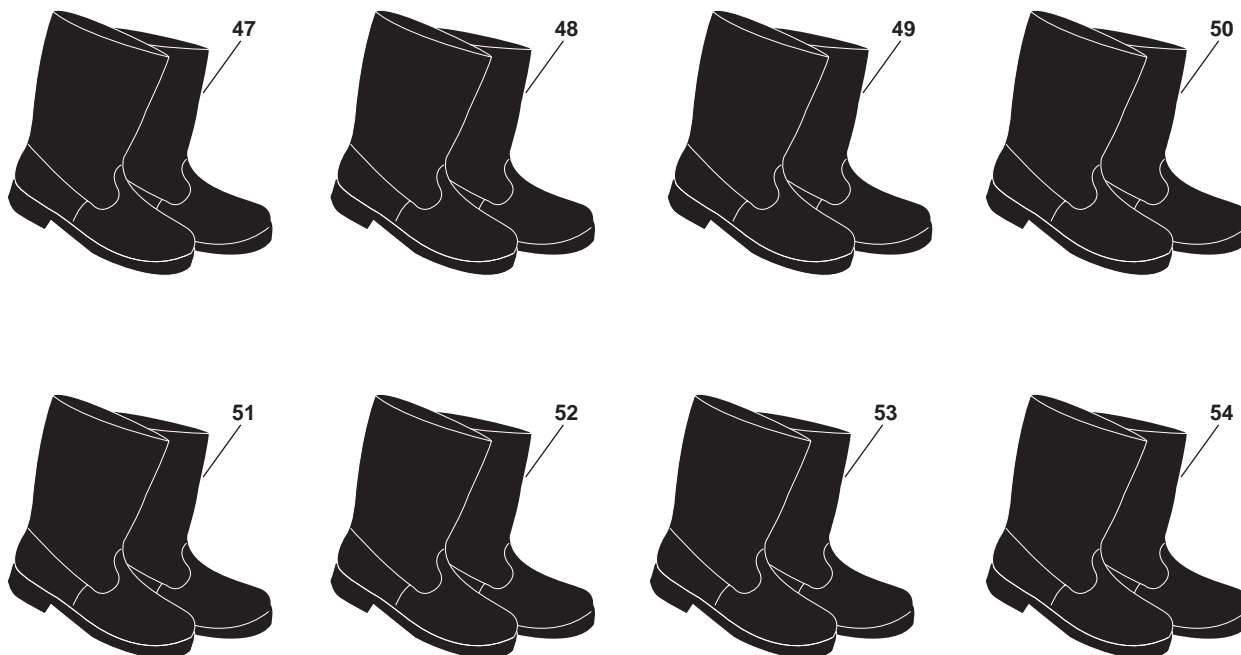


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
47	8430-00-753-5941	BOOT'S, FIREMEN'S SZ 11 (DC Locker) (58536) A-A-50371 (SZ11)	128	PR	7
48	8430-00-753-5943	BOOT'S, FIREMEN'S SZ 13 (DC Locker) (58536) A-A-50371 (SZ13)	128	PR	7
49	8430-00-753-5945	BOOT'S, FIREMEN'S SZ 15 (DC Locker) (58536) A-A-50371 (SZ15)	128	PR	7
50	8430-00-753-5935	BOOTS, FIREMEN'S SZ 5 (DC Locker) (58536) A-A-50371 (SZ5)	128	PR	7
51	8430-00-753-5936	BOOTS, FIREMEN'S SZ 6 (DC Locker) (58536) A-A-50371 (SZ6)	128	PR	7
52	8430-00-753-5937	BOOTS, FIREMEN'S SZ 7 (DC Locker) (58536) A-A-50371 (SZ7)	128	PR	7
53	8430-00-753-5938	BOOT'S, FIREMEN'S SZ 8 (DC Locker) (58536) A-A-50371 (SZ8)	128	PR	7
54	8430-00-753-5939	BOOT'S, FIREMEN'S SZ 9 (DC Locker) (58536) A-A-50371 (SZ9)	128	PR	7



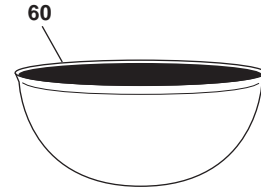
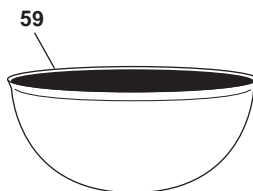
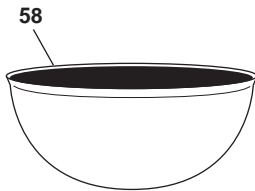
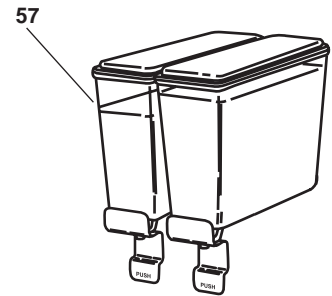
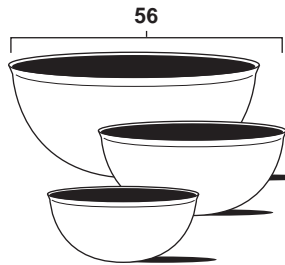


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
55	8430-00-753-5940	BOOT'S, FIREMEN'S SZ10 (DC Locker) (58536) A-A-50371 (SZ10)	128	PR	7
56	7330-00-685-5013	BOWL SET, FOOD MIXING, 3 PC STAINLESS (Galley) (80244) 7330-00-685-5013	128	SE	1
57	7310-01-343-2235	BOWL, BEVERAGE DISPENSER (Galley) (53214) 1994	128	EA	2
58	7350-00-251-8746	BOWL, EATING, PLASTIC, 5-3W4 DIA. (Galley) (80244) 7350-00-251-8746	128	DZ	4
59	7330-00-241-8168	BOWL, FOOD MIXING, STAINLESS STEEL 7-1/2 GAL (Galley) (80244) 7330-00-241-8168	128	EA	2
60	7330-00-205-3198	BOWL, FOOD MIXING, STAINLESS STEEL, 1 1/2 QT (Galley) (80244) 7330-00-205-3198	128	BX	2

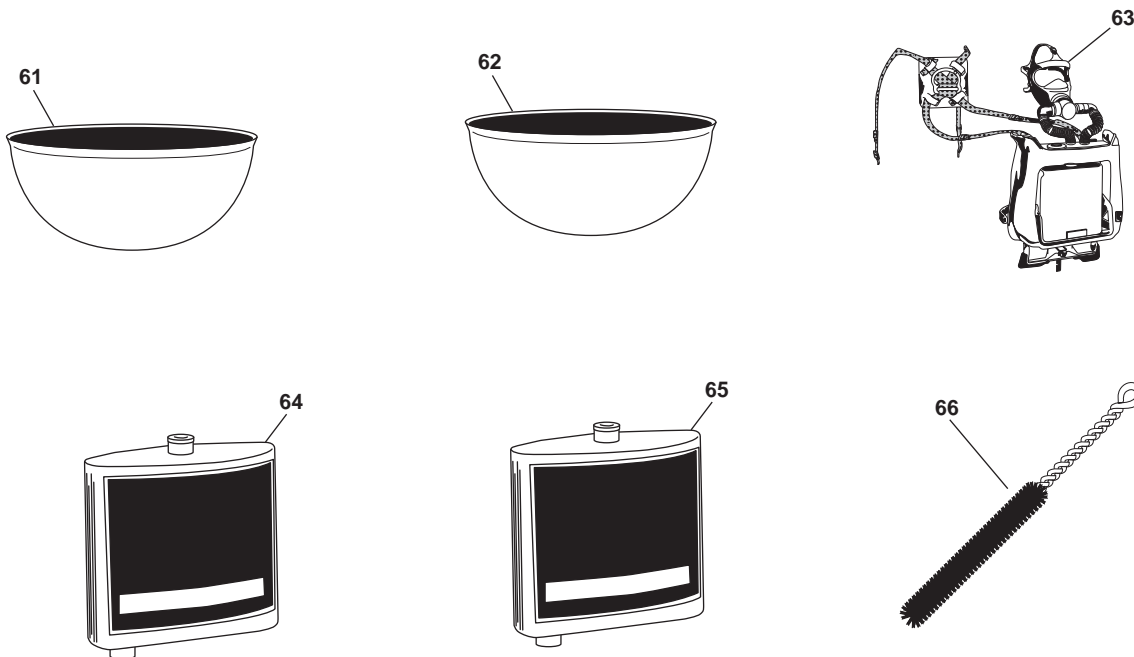


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
61	7330-00-205-3337	BOWL, FOOD MIXING, STAINLESS STEEL, 3 QT 9-3/4" DIA. (Galley) (80244) 7330-00-205-3337	128	EA	1
62	7330-00-262-2323	BOWL, FOOD MIXING, STAINLESS STEEL, 5 QT, 11" DIA (Galley) (80244) 7330-00-262-2323	128	EA	2
63	4240-00-616-2857	BREATHING APPARATUS, OXYGEN GENERATING (On Station) (81349) MIL-B-24692	128	EA	7
64	4240-01-116-9888	BREATHING APPARATUS, OXYGEN GENERATING SERVICE UNIT (On Station) (53655) 802300-14-SPEC	128	EA	27
65	4240-01-116-9889	BREATHING APPARATUS, OXYGEN GENERATING TRAINING UNIT (DC Locker) (53655) 802300-03	128	EA	7
66	7920-00-285-9100	BRUSH, BOTTLE AND BURET (Machine Shop, AMS2) (80064) 3153774PC625	128	DZ	1

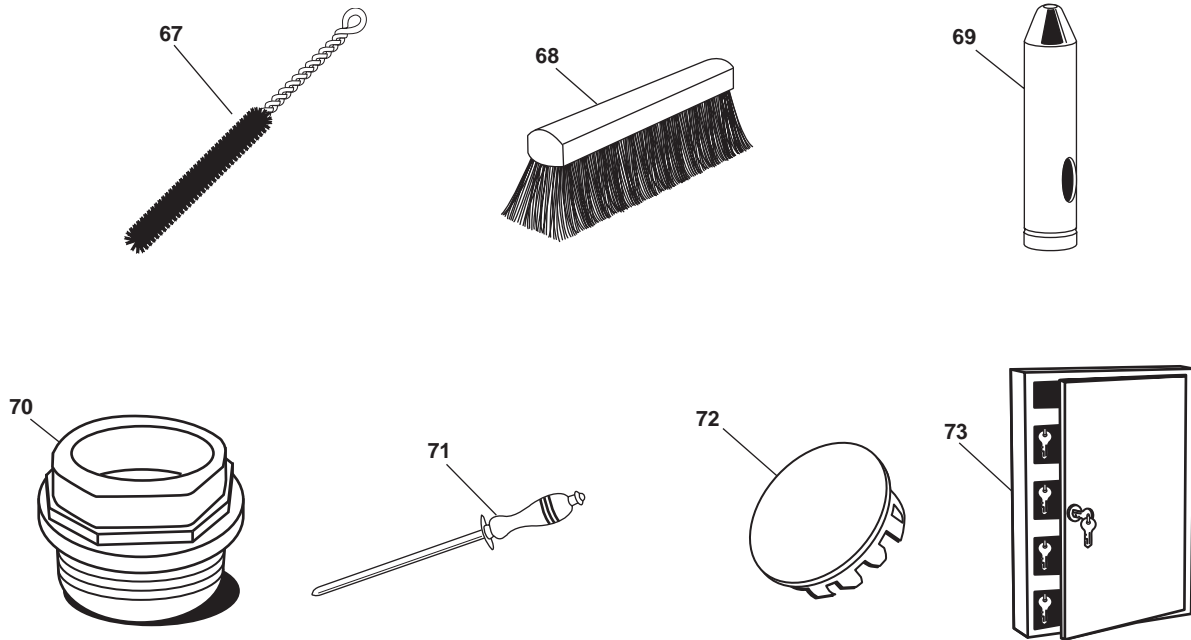


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
67	5130-01-348-5292	BRUSH, CLEANING, VALVE GUIDE (Machine Shop) (72915) 8141439	128	EA	1
68	7920-00-165-7277	BRUSH, DUSTING, BENCH (Workshop, AMS2) (45092) 378	128	EA	1
69	5120-01-363-9052	BULLET (Machine Shop) (96151) 600465-000	128	EA	1
70	4730-01-235-5782	BUSHING, PIPE (Machine Shop, AMS2) (93061) 209P-12-4	128	EA	1
71	7330-00-550-7592	BUTCHERS STEEL, 10" BLADE TYPE 12 GRADE C (Galley) (58536) A-A-2733	128	EA	1
72	5340-01-007-4950	BUTTON, PLUG (Machine Shop, AMS2) (81983) L-1360	128	EA	1
73	7125-00-132-8973	CABINET, KEY, 75 KEY, STEEL GRAY, TYPE 2 (On Station) (58536) A-A-2547	128	EA	4

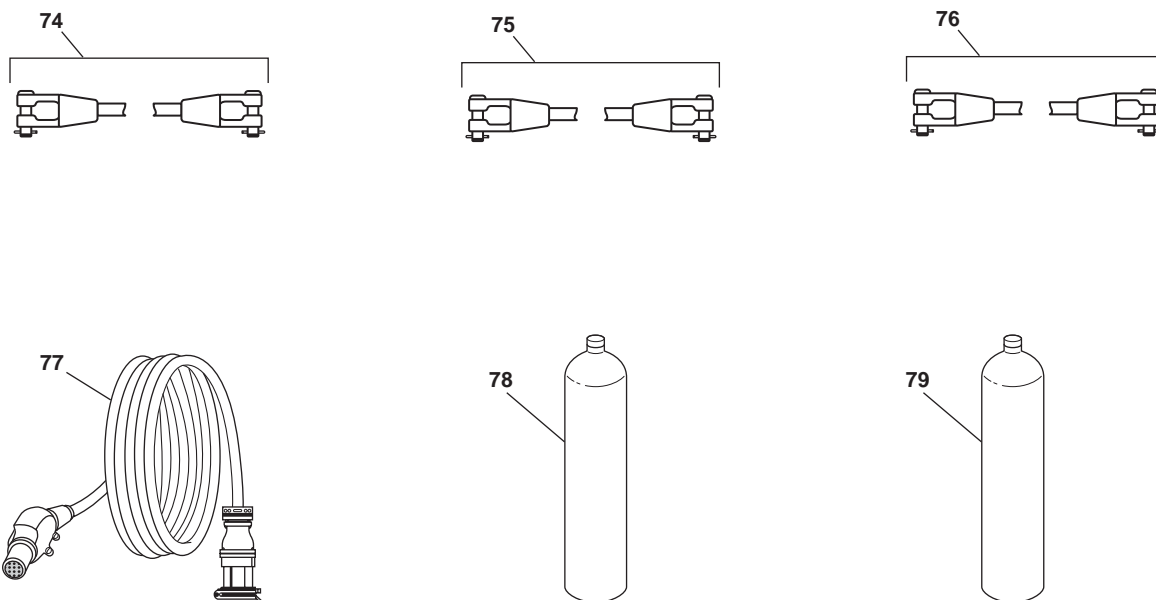


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
74	4010-01-529-4762	CABLE ASSY, TOWING BRIDLE ( 1-5/8" X 100 FT) (Towing Gear Locker) (97403) 13226E6327-5	128	EA	10
75	4010-01-529-4759	CABLE ASSY, RETRIEVING WIRE (1/2" X 200') (Towing Gear Locker) (97403) 13226E6327-1	128	EA	5
76	4010-01-529-4761	CABLE ASSY, TOWING BRIDLE (1-5/8" X 600') (Towing Gear Locker) (97403) 13226E6327-2	128	EA	5
77	6145-01-202-0671	CABLE, POWER, ELECTRICAL (For Shore Power) (Towing Gear Locker) (81349) M24643/3-29UN	128	EA	2
78		CALIBRATION GAS, 60% LEL, 60PPM CO2 (Machine Shop, AMS2) (8F723) 478191	128	EA	2
79	6830-01-331-9024	CALIBRATION GAS, MIXTURE, 10 PPM H2S (Machine Shop, AMS2) (13873) H2S/N2	128	EA	2

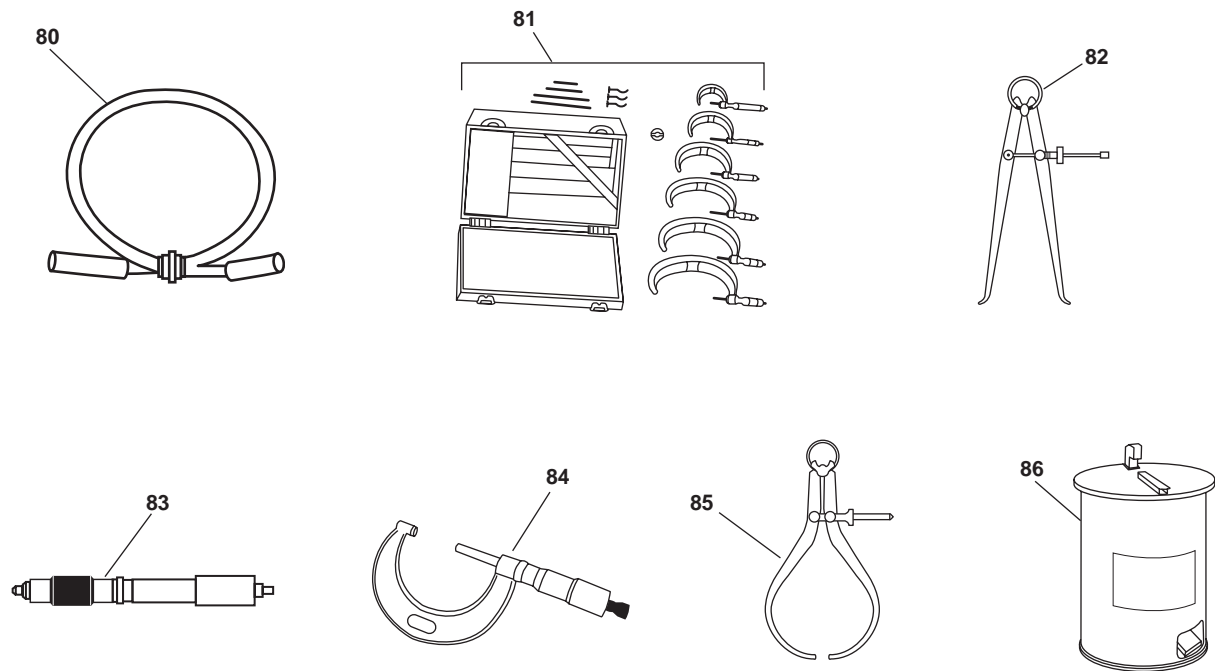


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
80	4720-01-529-5825	CALIBRATION TUBING (DC Locker) (8F723) 24194	128	FT	1
81	5120-00-554-7134	CALIPER SET, MICROMETER, OUTSIDE (Machine Shop D9 (57163) S436 RN 0-6IN. GRAD .001IN.	128	SE	1
82	5210-00-229-3051	CALIPER, INSIDE (Machine Shop) (08871) 8200-006	128	EA	1
83	5210-00-221-1921	CALIPER, MICROMETER, INSIDE (Tool Cage EOS A3) (60998) 10-0090-9000	128	EA	1
84	5120-00-287-3336	CALIPER, MICROMETER, OUTSIDE (Machine Shop D9) (60998) 05-0009-9400	128	SE	1
85	5210-00-229-3054	CALIPER, OUTSIDE (Machine Shop) (57163) 179-6	128	EA	1
86	7240-00-282-8411	CAN, FLAMMABLE WASTE, FOOT OPERATED, 6 GAL (Machine Shop CAB A) (32572) 09100	128	EA	8

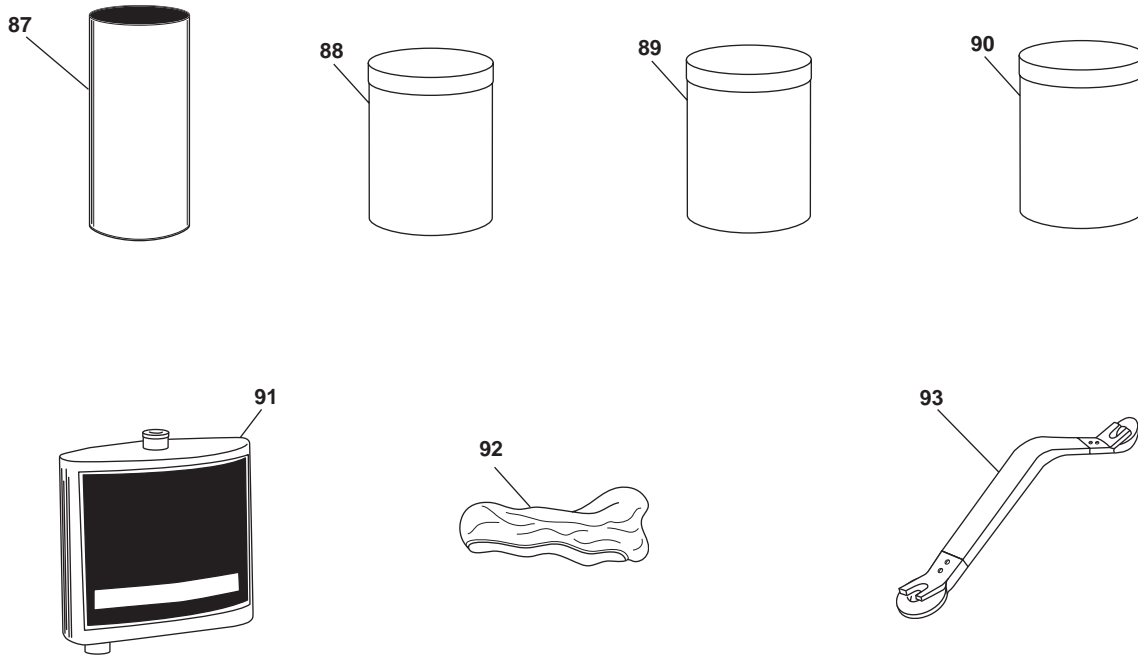


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
87	7240-00-160-0440	CAN, GARBAGE W/O COVER, 32 GL (Machine Shop) (OT115) 90146HDC	128	EA	2
88	7330-00-634-4501	CANISTER, FOOD STORAGE, FLOUR (Galley) (58536) A-A-860	128	EA	1
89	7330-00-266-7450	CANISTER, FOOD STORAGE, SUGAR (Galley) (58536) A-A-860	128	EA	1
90	7330-00-266-7449	CANISTER, FOOD STORAGE, TEA (Galley) (80244) 7330-00-266-7449	128	EA	1
91	4240-00-174-1365	CANISTER, OXYGEN GEN., BREATHING APPARATUS (DC Locker) (55799) 92908	128	BX	11
92	8415-00-634-2410	CAP, FOOD HANDLER'S, WHITE (Machine Shop CAB A) (80244) 8415-00-634-2410	128	BX	1
93	5120-00-529-4124	CARRIER, STORAGE BATTERY, SIZE 20 (Machine Shop D9) (80534) 541	128	EA	2

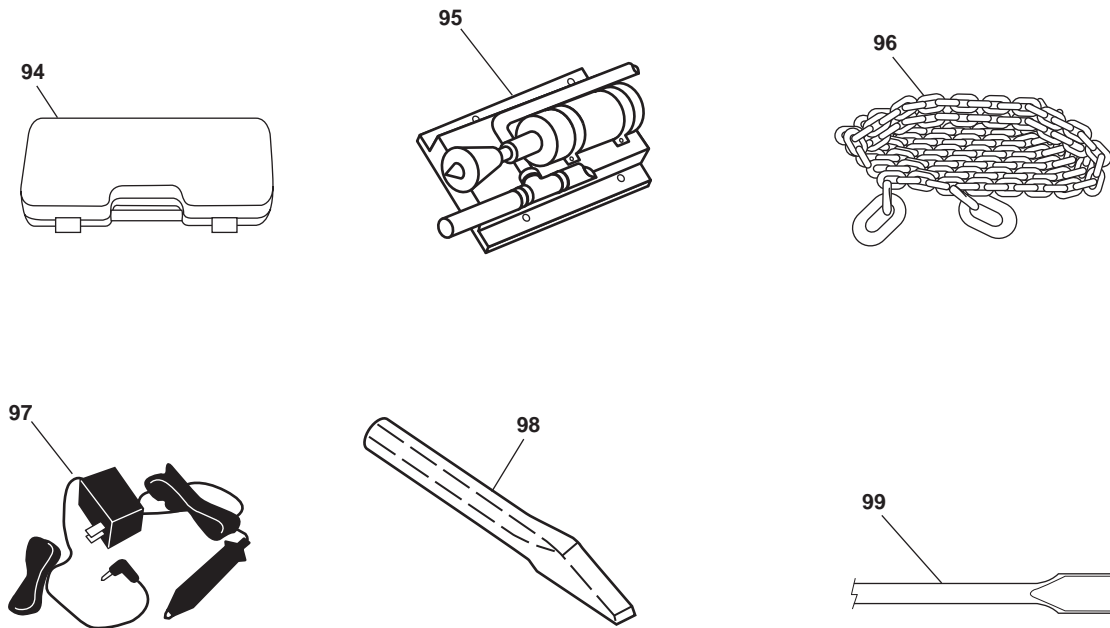


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
94	2540-01-529-5620	CARRYING CASE (insert included) (DC Locker) (8F723) 803907	128	EA	2
95	4610-01-022-9970	CARTRIDGE, WATER DEMINERALIZER, ION EXCHANGE (Galley) (08576) 9540-01	128	EA	2
96	4010-01-206-5590	CHAIN, STUD, LINK, 1-1/2 X 90' (Towing Gear Locker) (81349) MIL-C-24633	128	EA	4
97	6130-01-529-4538	CHARGER, BATTERY, 110V (DC Locker) (1XRW6) 09-0051-01	128	EA	1
98	5110-00-222-2128	CHISEL, CAPE, HAND, NORMAL- DUTY, 6-1/2 X 3/8 (DC Main Deck DE) (20728) G10-2128	128	EA	1
99	5130-00-203-6424	CHISEL, POWER HAMMER, SCALING, 1-1/4" X 9" (Machine Shop) (81348) GGG-C-330	128	EA	2

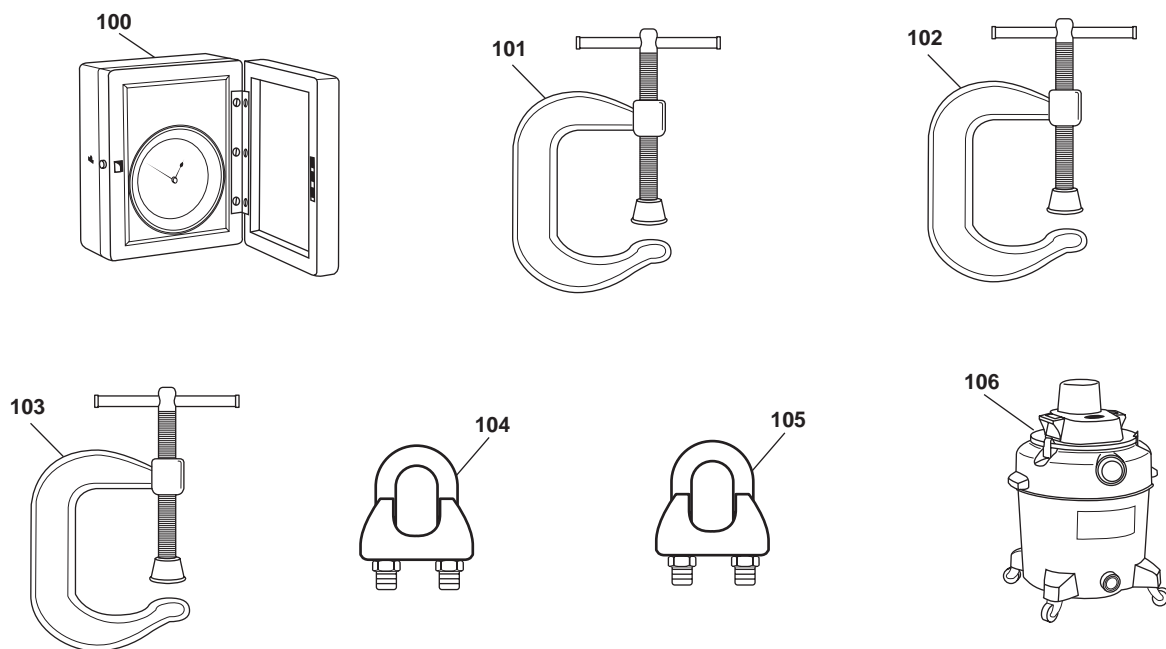


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
100	6645-01-282-1928	CHRONOMETER WITH BOX (Arms Room) (54121) 20806	128	EA	2
101	5120-00-529-3744	CLAMP, "C", HEAVY 4-1/2" TO 2-3/4" (Tool Cage EOS A1) (58536) A-A-433	128	EA	2
102	5120-00-180-0909	CLAMP, "C", LIGHT 6" OPENING, 2-3/4" DP (Tool Cage EOS A4) (0M198) 406	128	EA	4
103	5120-00-203-6431	CLAMP, "C", MEDIUM, 9 X 2-1/4" (Machine Shop D8) (08292) S34251	128	EA	2
104	4030-00-243-4441	CLAMP, WIRE ROPE, SADDLED 5/8 IN (Towing Gear Locker) (80020) A92392-8	128	EA	50
105	4030-00-243-4448	CLAMP, WIRE ROPE, SADDLE 1/2 IN (Towing Gear Locker) (81348) FFC450	128	EA	50
106	7910-00-550-9120	CLEANER, VACUUM, ELECTRIC (Cleaning Locker) (80029) MODEL 2815	128	EA	1



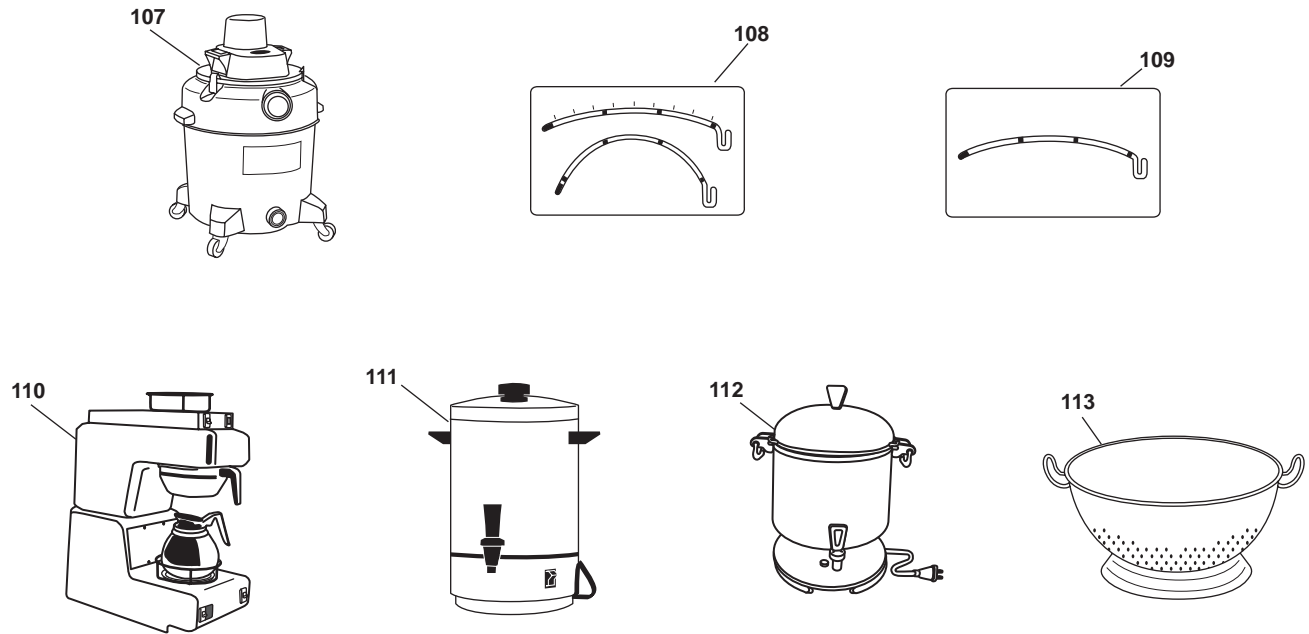


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
107	7910-00-550-9123	CLEANER, VACUUM, ELECTRIC (Cleaning Locker) (80029) MODEL NUMBER 6740AGS	128	EA	2
108	6605-00-825-5618	CLINOMETER, SHIP HEEL (Fitted Main Deck DC) (58536) AA59308-1A	128	EA	2
109	6605-00-818-3897	CLINOMETER, SHIP TRIM (Fitted Arms Room) (58536) AA59308-IIC	128	EA	2
110	7310-01-374-2669	COFFEE MAKER, AUTOMATIC (Pilothouse) (25628) OT-15	128	EA	1
111	7310-00-144-4707	COFFEE MAKER, PERCOLATOR (30 Cup) (Galley) (58536) A50354-II-30	128	EA	3
112	7310-00-505-0191	COFFEE MAKER, PERCOLATOR (80 Cup) (Galley) (58536) A50354-II-80	128	EA	1
113	7330-00-680-2762	COLANDER, ALUMINIUM, 11QT, STYLE 2 (Galley) (58536) A-A-469	128	EA	1

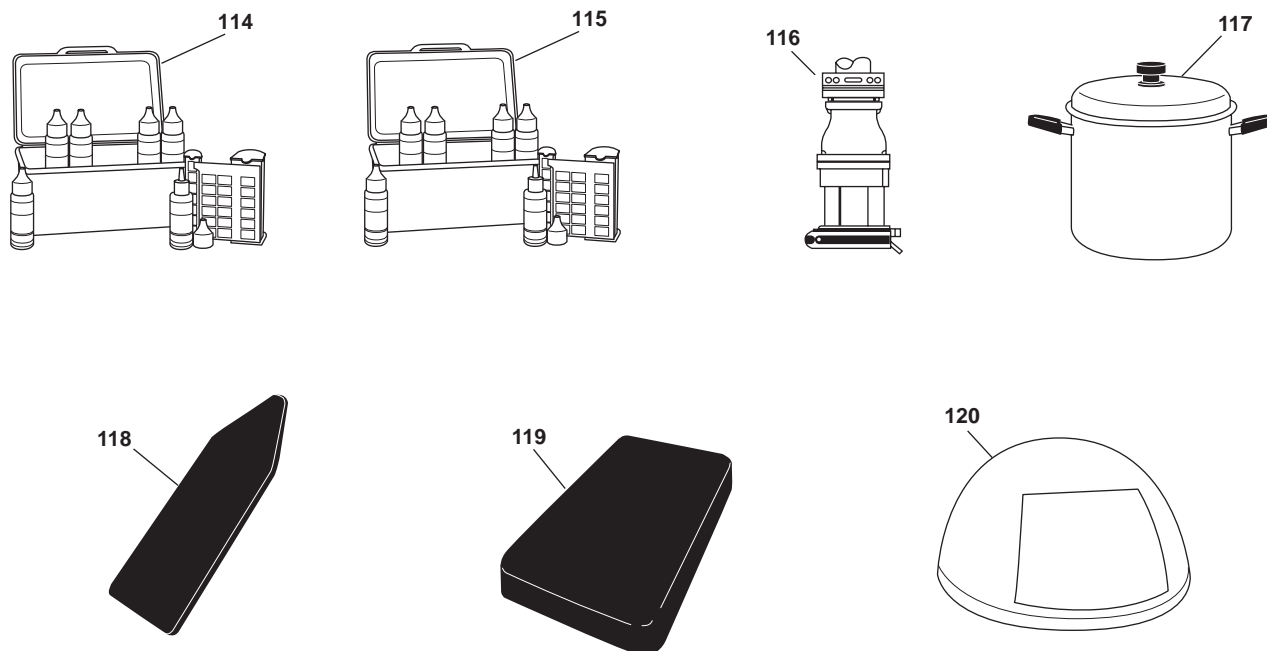


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
114	6630-01-067-3827	COMPARATOR, COLOR (Machine Shop D12) (34807) 6896	128	SE	1
115	6630-01-024-0119	COMPARATOR, COLOR (Machine Shop DS) (08576) 5719	128	EA	2
116	5935-01-529-4569	CONNECTOR, PLUG (Shore Power Cable) (59730) DS4404FP000	128	EA	1
117	7360-00-245-1224	CONTAINER, COOKING (Galley) (81337) DWG 5-13-61	128	EA	2
118	7290-00-130-3271	COVER, IRONING BOARD 16 X 54" HEAT RESISTANT (Laundry Room) (83421) 7290-00-130-3271	128	EA	1
119	7210-00-883-8492	COVER, MATTRESS, SIZED TO FIT MATTRESS (Linen Locker) (83421) 7210-00-883-8492	128	EA	46
120	7240-00-161-1143	COVER, TRASH AND GARBAGE CAN, 32 GL (Cleaning Locker Main Deck) (0T115) 90146HDL	128	EA	2

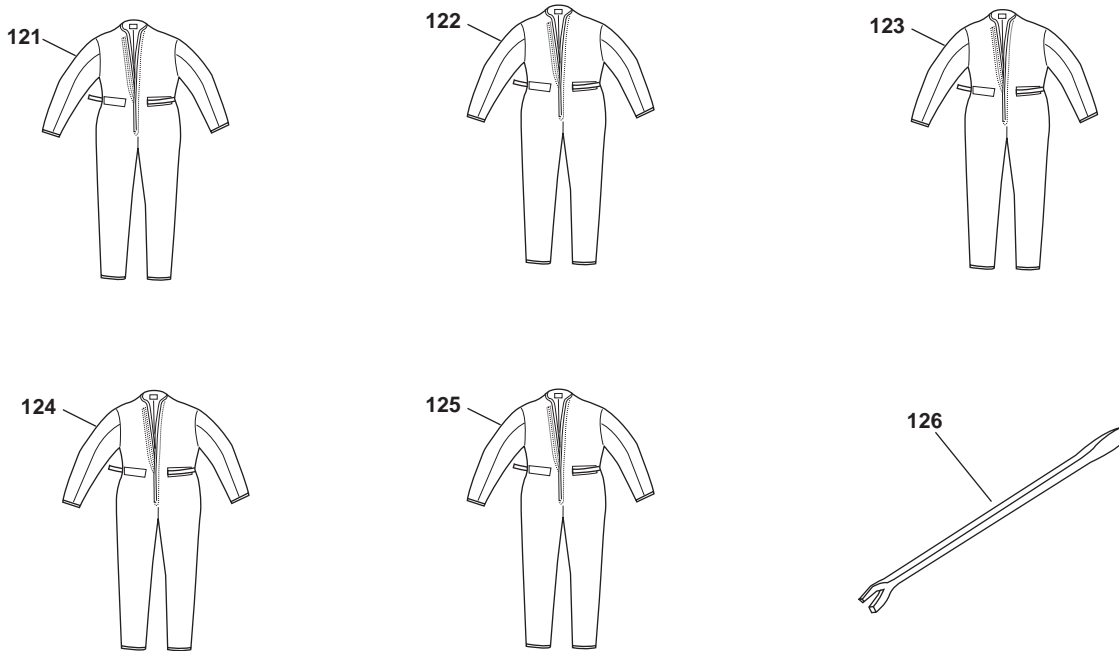


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
121		COVERALL, ANTI EXPOSURE STEARN SUIT (Staterooms) (64249) 327	128	EA	11
122	8415-01-011-5054	COVERALL, ANTIEXPOSURE, EXTRA LARGE (Staterooms) (58536) A-A-55278 (XL)	128	EA	2
123	8415-01-011-5053	COVERALL, ANTIEXPOSURE, LARGE (Staterooms) (58536) A-A-55278 (L)	128	EA	5
124	8415-01-011-5052	COVERALL, ANTIEXPOSURE, MEDIUM (Staterooms) (58536) A-A-55278 (M)	128	EA	2
125	8415-01-011-5051	COVERALL, ANTIEXPOSURE, SMALL (Staterooms) (58536) A-A-55278 (SM)	128	EA	2
126	5120-00-224-1390	CROWBAR (Machine Shop D2) (56161) 10501985	128	EA	3

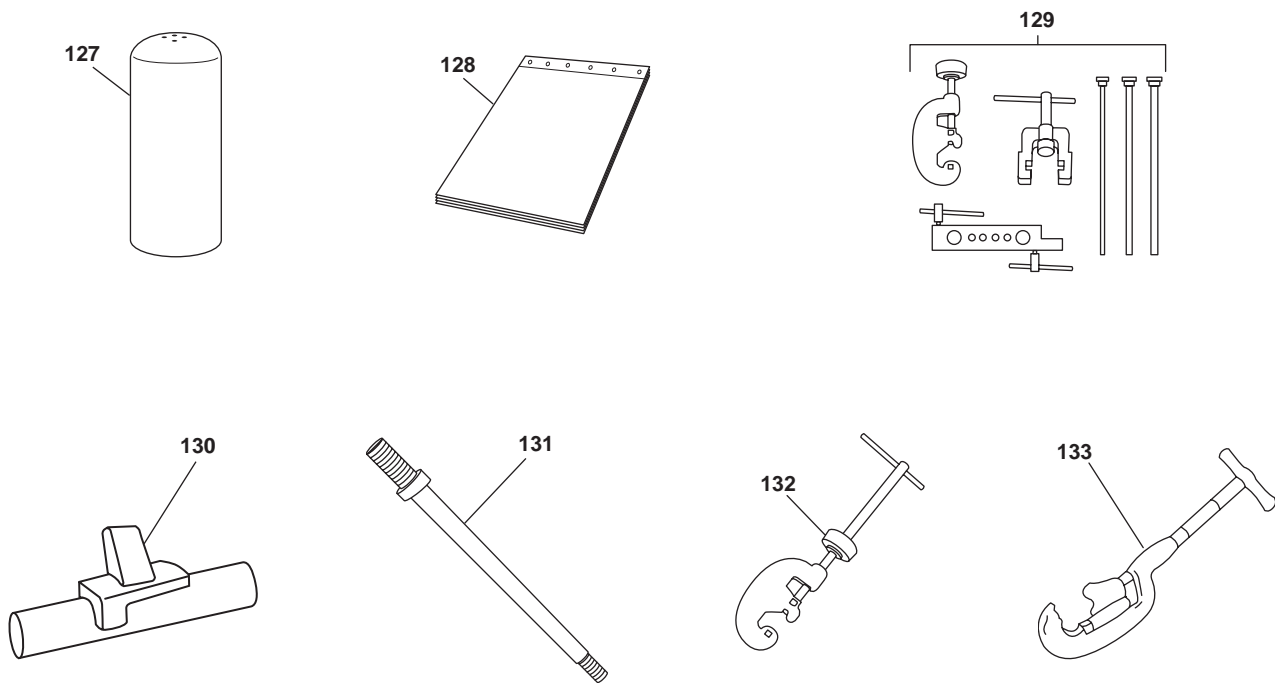


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
127	7350-00-935-6635	CRUET, CONDIMENT, 6 OZ, 24 PER BOX (Galley) (80244) 7350-00-935-6635	128	BX	1
128	7230-00-849-9839	CURTAIN, SHOWER, PLASTIC, 36" X 72" (Showers) (80244) 7230-00-849-9839	128	EA	12
129	5180-00-596-1038	CUTTER AND FLARING TOOL KIT (Tool Cage EOS C3) (80244) PD5180-00-596-1038	128	KT	1
130	5110-01-361-8588	CUTTER BIT, BOILER TUBE CUTTER (Machine Shop) (70211) OTC-750-2	128	EA	1
131	5110-01-361-8587	CUTTER, BOILER TUBE (Machine Shop) (70211) OR-750-14	128	EA	1
132	5110-00-293-0460	CUTTER, PIPE, CUTS 1/8" TO 2" DIA (DC Main Deck DO) (50893) 32820	128	EA	1
133	5110-00-221-1049	CUTTER, PIPE, WHEEL TYPE, CUTS 2" TO 4" (DC Main Deck S5) (50893) 32840	128	EA	1

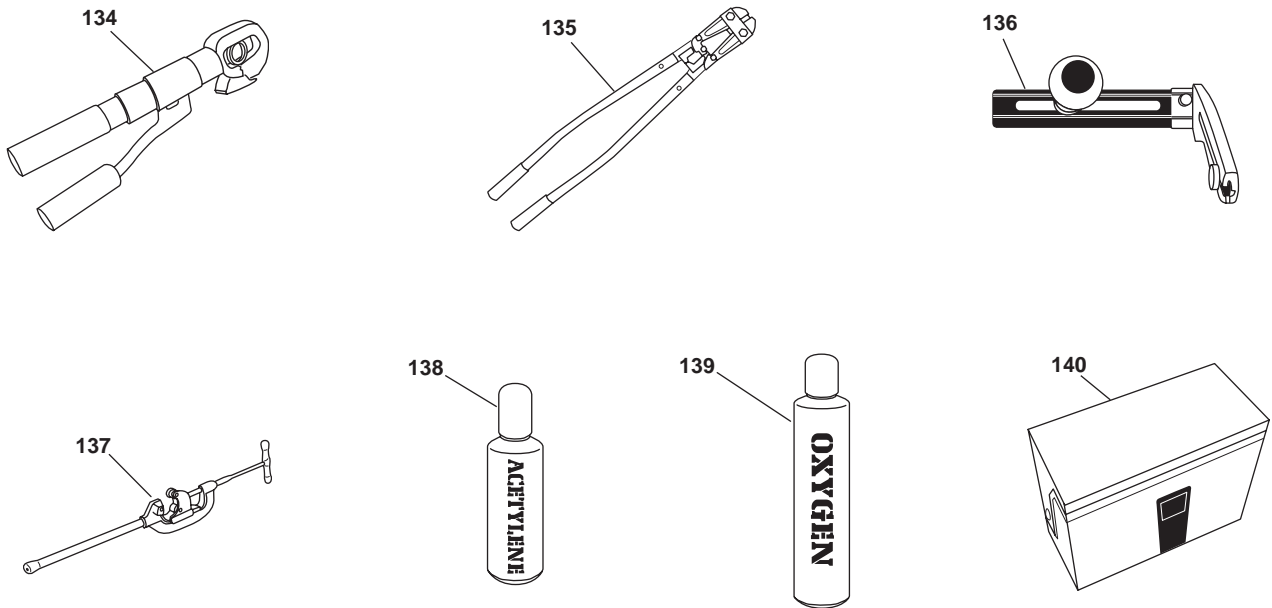


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
134	5110-00-224-7058	CUTTER, WIRE, ROPE, HAND OPERATED, HYDRAULIC (DC Main Deck DE) (85767) P1125	128	EA	1
135	5110-00-188-2524	CUTTER, BOLT, RIGID, CUPPER, 36 LONG (Bosuns Store Room) (58536) A-A-3047	128	EA	2
136	5110-00-288-8722	CUTTER, CIRCLE, GASKET (DC Main Deck DD) (80244) PD5110-00-288-8722	128	EA	1
137	5110-00-529-5092	CUTTER, PIPE, WHEEL TYPE, CUTS 4 IN TO 6 IN (Machine Shop Cab A) (50893) 32850	128	EA	1
138	8120-00-268-3360	CYLINDER, ACETYLENE GAS (AMS2) (81349) MIL-C-3701	128	EA	2
139	8120-00-357-7992	CYLINDER, OXYGEN (AMS2) (81348) C901/1-15	128	EA	2
140	6665-01-463-4278	DETECTOR KIT, CHEMICAL AGENT (DC Main Deck S11) (81361) 5-77-3274	128	EA	1

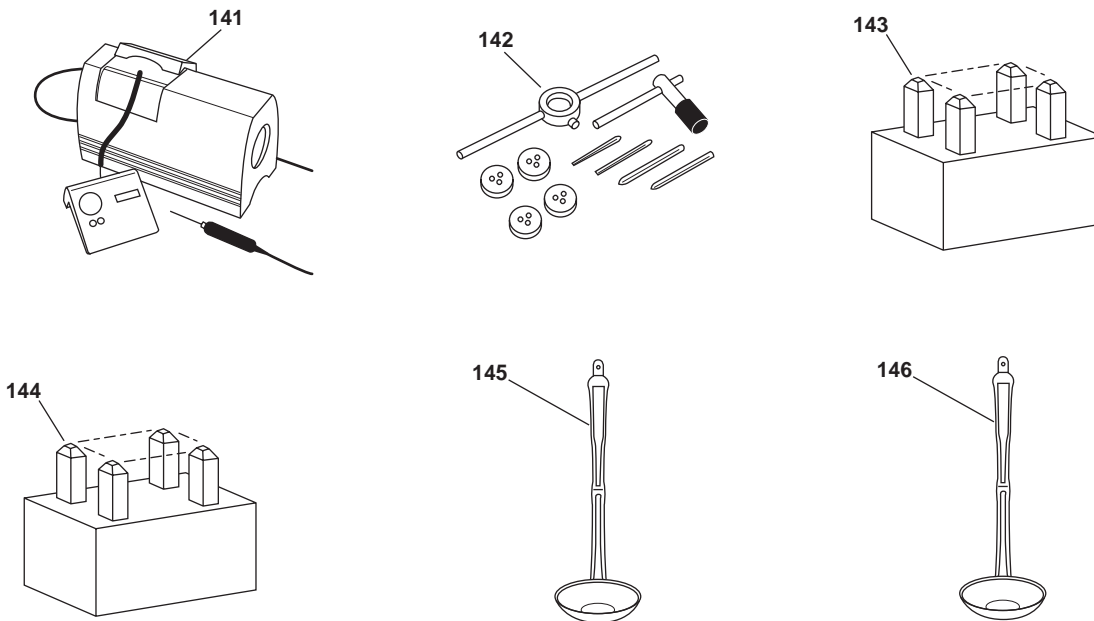


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
141	4940-01-166-7059	DETECTOR, LEAK, REFRIG, ELECTRONIC (Paint Locker Main Deck) (16734) TIFXL1	128	EA	1
142	5136-00-357-7494	DIE AND TAP SET, THREAD CUTTING (Tool Cage EOS B1) (81348) GGG-T-330	128	SE	1
143	5110-00-289-0003	DIE SET, METAL STAMPING, HAND (DC Main Deck DD) (87369) 5110-00-289-0003	128	SE	1
144	5110-00-289-0007	DIE SET, METAL STAMPING, HAND (Machine Shop D9) (87369) 5110-00-289-0007	128	SE	1
145	7330-00-272-2488	DIPPER, KITCHEN, STAINLESS STEEL, 1 PT 8" HANDLE (Galley) (80244) A-A-1752 TYP2SZ0	128	EA	1
146	7330-00-272-2489	DIPPER, KITCHEN, STAINLESS STEEL, 1/2 QT, 12" HANDLE (Galley) (80244) A-A-1752 TYP2SZ1	128	EA	2

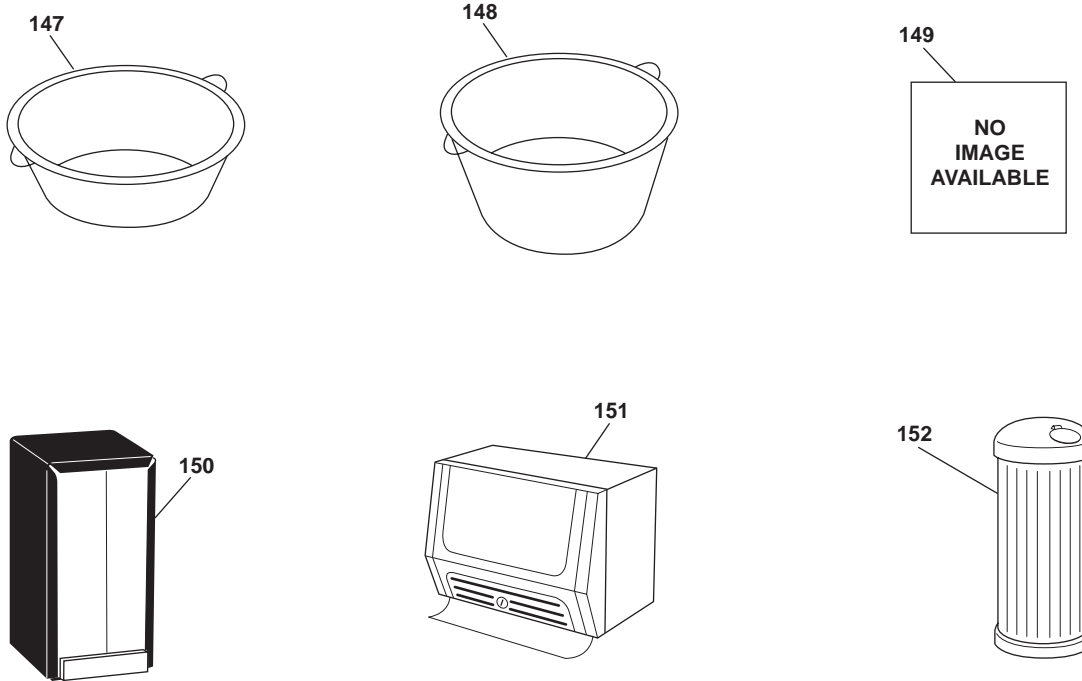


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
147	7330-00-240-2201	DISHPAN, ROUND, STAINLESS STEEL 12 QT SZ1 (Galley) (80244) 7330-00-240-2201	128	EA	1
148	7330-00-190-5190	DISHPAN, ROUND, STAINLESS STEEL 24 QT SZ3 (Galley) (80244) 7330-00-190-5190	128	EA	1
149		INTENTIONALLY LEFT BLANK			
150	7350-00-205-0928	DISPENSER, PAPER NAPKINS, STAINLESS STEEL (Galley) (80244) 7350-00-205-0928	128	EA	4
151	4510-00-585-6305	DISPENSER, PAPER TOWEL, STEEL CABINET, TYPE 3 (Fitted) (1CMY5) C-200-W	128	EA	22
152	7350-00-641-6050	DISPENSER, SUGAR, 12 OZ GLASS BODY (Galley) (80244) 7350-00-641-6050	128	EA	6

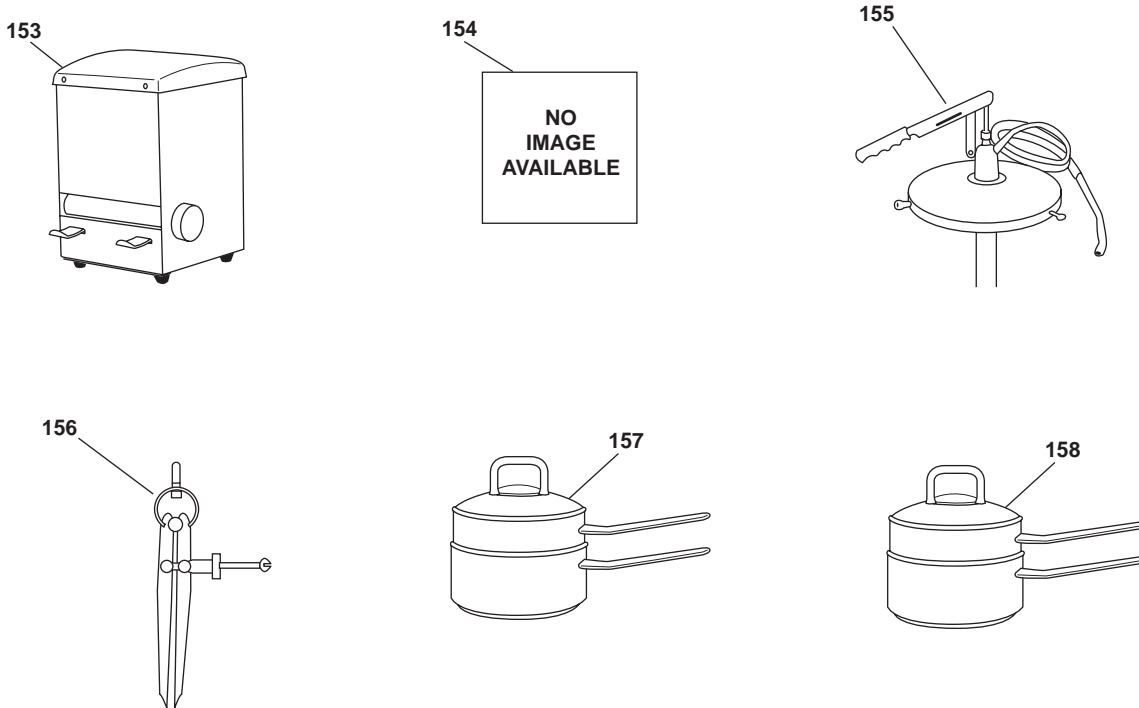


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
153	7350-00-715-1369	DISPENSER, TOOTHPICK, STAINLESS STEEL 300 CAP (Galley) (80244) 7350-00-715-1369	128	EA	2
154		INTENTIONALLY LEFT BLANK			
155	4930-00-263-9886	DISPENSING PUMP, HAND (Machine Shop, AMS2) (OGZN8) B8999	128	EA	1
156	5210-00-266-7038	DIVIDER, MECHANICS' (Machine Shop CAB C) (80244) 5210-00-266-7038	128	EA	1
157	7330-00-205-3155	DOUBLE BOILER, ALUMINIUM, HEAVY DUTY, 11QT (Galley) (80244) 7330-00-205-3155	128	EA	2
158	7330-00-205-3154	DOUBLE BOILER, DOMESTIC, ALUMINIUM 3 QT (Galley) (80244) 7330-00-205-3154	128	EA	2



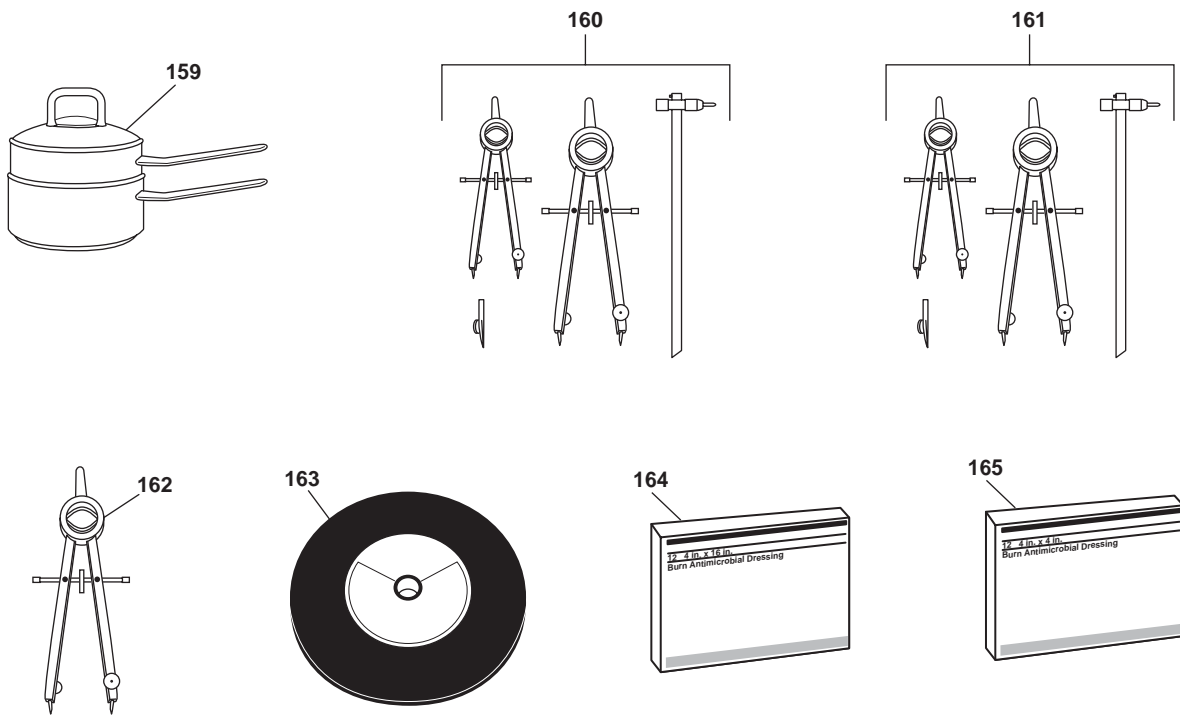


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
159	7330-00-984-4065	DOUBLE BOILER, INSTITUTIONAL 5-1/2 QT (Galley) (80244) 7330-00-984-4065	128	EA	2
160	6675-00-926-4360	DRAFTING INSTRUMENT SET (Pilothouse) (58536) A52034-1	128	SE	1
161	6675-00-641-3531	DRAFTING INSTRUMENT SET (Pilothouse) (58536) A-A-52034	128	EA	1
162	6675-00-286-0602	DRAFTING INSTRUMENT, NAVIGATION (Pilothouse) (81349) MIL-N-634	128	SE	2
163	5120-00-223-9952	DRESSER, ABRASIVE WHEEL, HAND, 1-1/4" DIA, SIZE 0 (Machine Shop D1) (81348) GGG-D-631	128	EA	1
164	6510-01-243-5894	DRESSING, BURN 4 IN. X 16 IN. (Medical Locker) (64616) 6-0310	128	EA	1
165	6510-01-243-5897	DRESSING, BURN 4 IN. X 4 IN. (Medical Locker) (1BJ97) 0404-60	128	EA	4

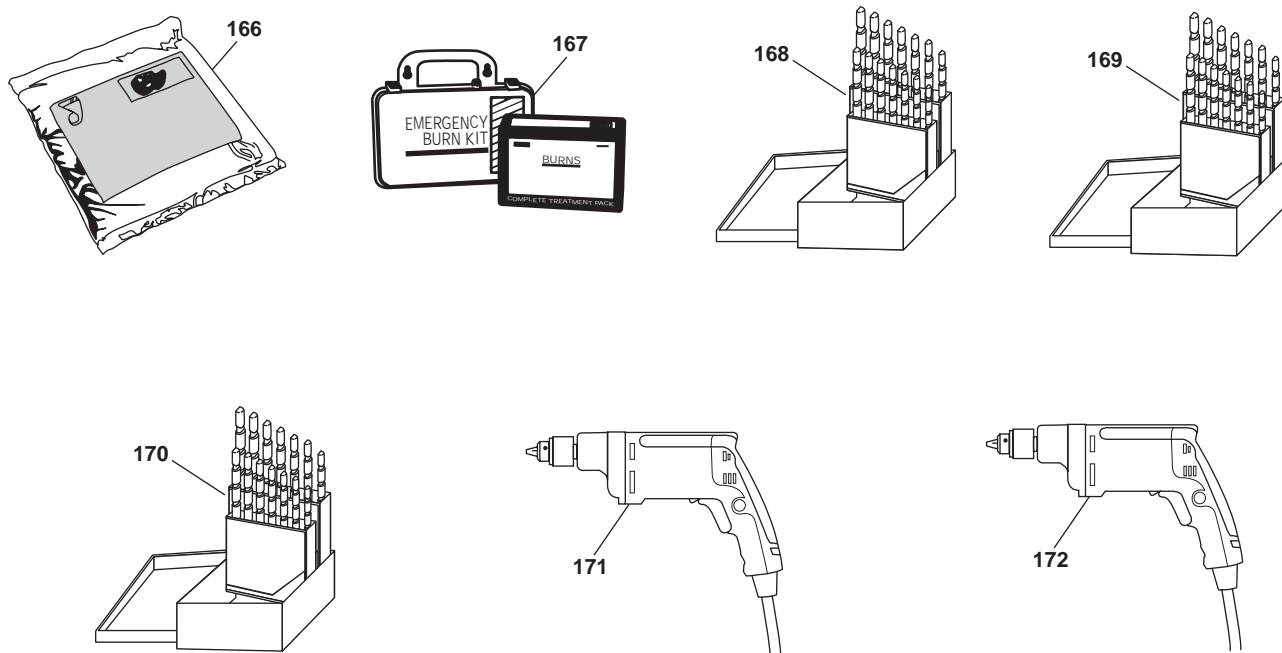


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
166	6510-01-439-5735	DRESSING, BURN, FACIAL MASK (Medical Locker) (1BJ97) 1216-20	128	EA	1
167	6510-01-239-9781	DRESSING, BURN, FIRST AID (Medical Locker) (1BJ97) 081805	128	EA	2
168	5133-00-293-0983	DRILL SET, TWIST SET, #2 STR SHORT SHANK (Paint Locker Main Deck) (55719) DB129B	128	SE	2
169	5133-00-449-6775	DRILL SET, TWIST SET, #3 MORSE TAPER SH (DC Main Deck D8) (067J8) 18103	128	SE	1
170	5133-00-293-1161	DRILL SET, TWIST, 1/2 IN TO 1 IN (Machine Shop) (05047) B94.11M	128	SE	1
171	5130-00-889-9004	DRILL, ELECTRIC, PORTABLE, 1/2" CAP (Machine Shop D11) (80244) 5130-00-889-9004	128	EA	1
172	5130-00-293-1849	DRILL, ELECTRIC, PORTABLE, AC/DC 115V TYPE 3 CLASS A 650 RPM, 1/2 IN CAP, HEAVY DUTY (Paint Locker Main Deck) (80244) 5130-00-293-1849	128	EA	1

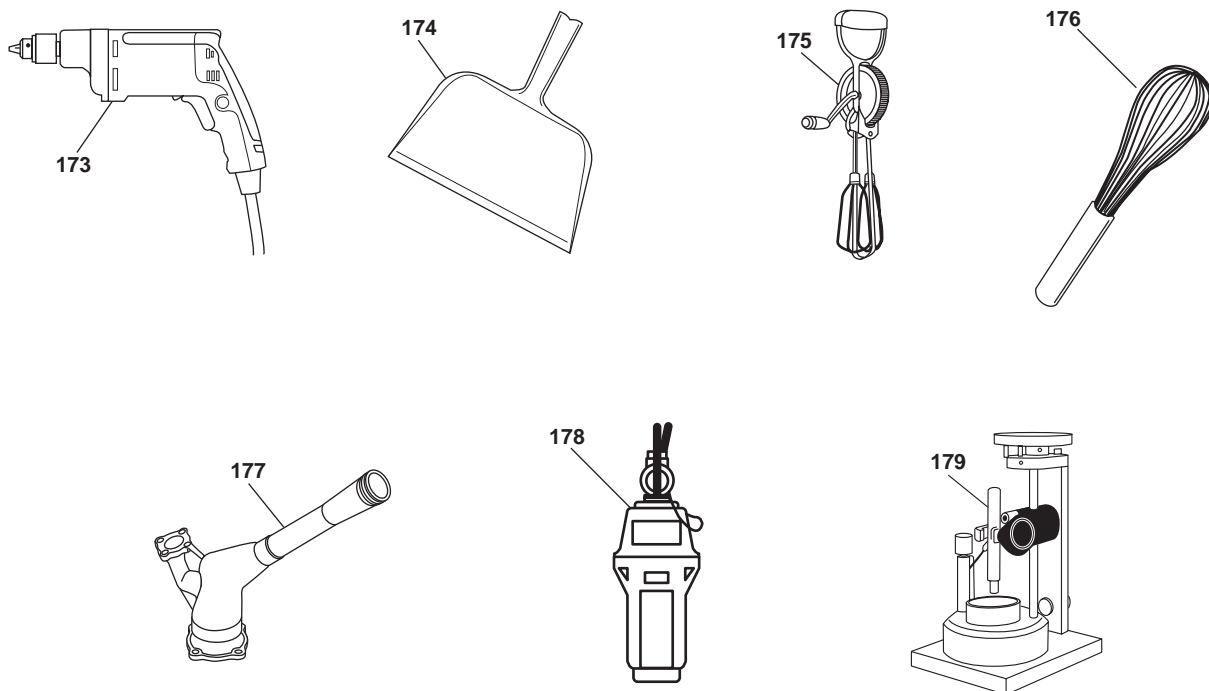


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
173	5130-00-473-6224	DRILL, ELECTRIC, PORTABLE, AC/DC, 115V 3/8" CAP (Machine Shop, AMS2) (80244) 5130-00-473-6224	128	EA	1
174	7290-00-224-8308	DUSTPAN, STEEL, TYPE 2 SIZE 12 (Laundry Room) (64067) 7290-00-224-8308	128	EA	6
175	7330-00-243-3408	EGG BEATER, HANDCRANK, DOUBLE BEATER (Galley) (80244) 7330-00-243-3408	128	EA	2
176	7330-00-205-3336	EGG WHIP (Galley) (58536) A-A-394	128	EA	1
177	4320-00-256-8206	EJECTOR, JET (Bow Thruster Port S2) (80064) 5000S4823-2501	128	EA	2
178	6320-01-378-0221	EPIRB, INDICATOR, SHIP'S POSITION (Bosuns Store Room S30) (04855) SATFIND-406M3	128	EA	1
179	5130-00-596-1062	ETCHER, ELECTRIC (Tool Cage EOS B2) OR (37201) (37201) 50	128	EA	2

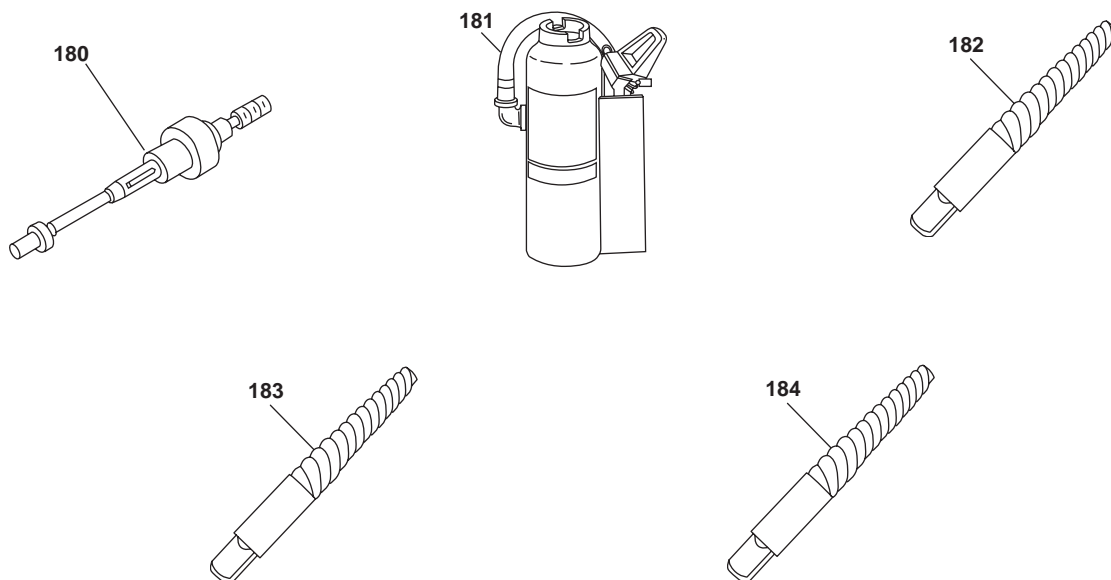
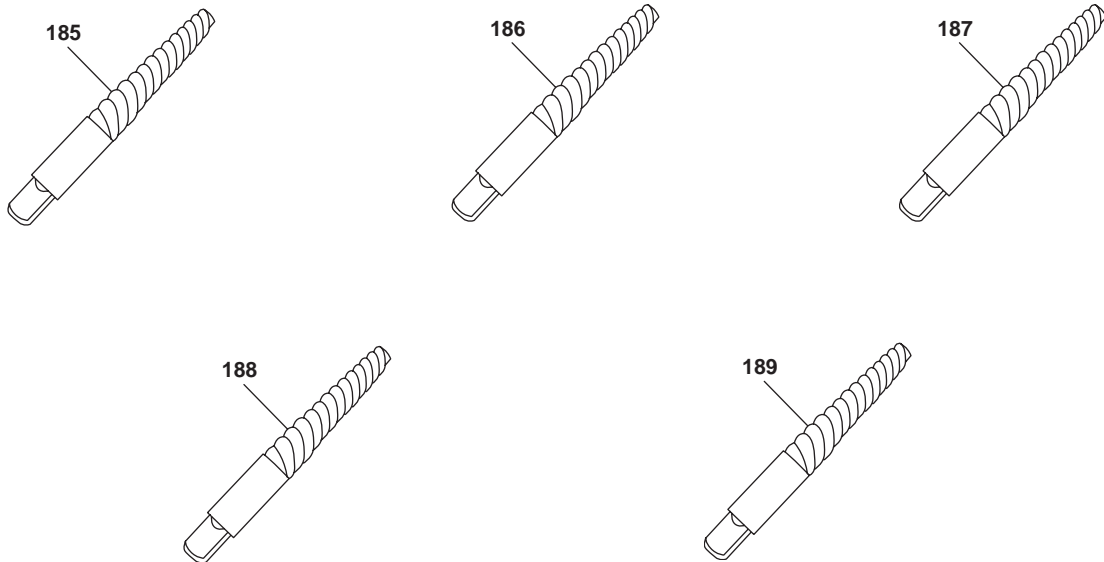


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
180	3441-01-014-6750	EXPANDER, TUBE (Machine Shop) (70211) 825	128	EA	1
181	4210-00-889-2491	EXTINGUISHER, FIRE (Fan Room Port) (58536) A-A-393	128	EA	14
182	5120-00-240-5222	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 4, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop D1) (067J8) 20204	128	EA	1
183	5120-00-240-5219	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 5, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop D1) (067J8) 20205	128	EA	1
184	5120-00-240-5220	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 6, DRILL STYLE, TYPE 1, CLASS 1, STYLE 1 (Machine Shop D1) (1NEX4) C53656	128	EA	1



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
185	5120-00-240-5217	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 7, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop D5) (1NEX4) C53657	128	EA	1
186	5120-00-240-5215	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 9, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop) (1NEX4) C53659	128	EA	1
187	5120-00-242-1118	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE B, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop D1) (1NEX4) C53658	128	EA	1
188	5120-00-223-6954	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 11, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (DC Vidmar DC) (1NEX4) C53661	128	EA	1
189	5120-00-223-6955	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 12, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Tool Cage EOS A1) (1NEX4) C53662	128	EA	1

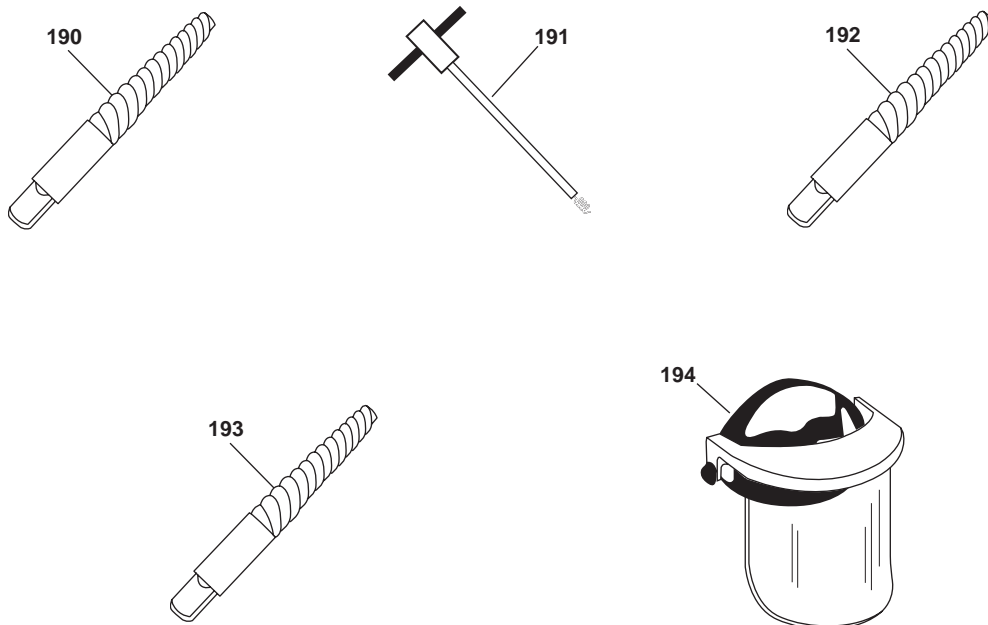


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
190	5120-00-240-5223	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 3, DRILL STYLE, TYPE 1, CLASS L, STYLE A (Machine Shop D1) (05047) B107.46M	128	EA	1
191	5120-00-223-9556	EXTRACTOR, STUFFING (Machine Shop) (81348) GGG-E-950	128	EA	1
192	5120-00-240-5221	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 1, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop D1) (05047) B107.46M	128	EA	1
193	5120-00-240-5216	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 10, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (Machine Shop CAB A) (63704) 11637	128	EA	1
194	4240-00-240-5140	FACESHIELD, INDUSTRIAL, AMBER, K18 PLASTIC VISOR (Paint Locker) (81349) MIL-S-3126	128	EA	2

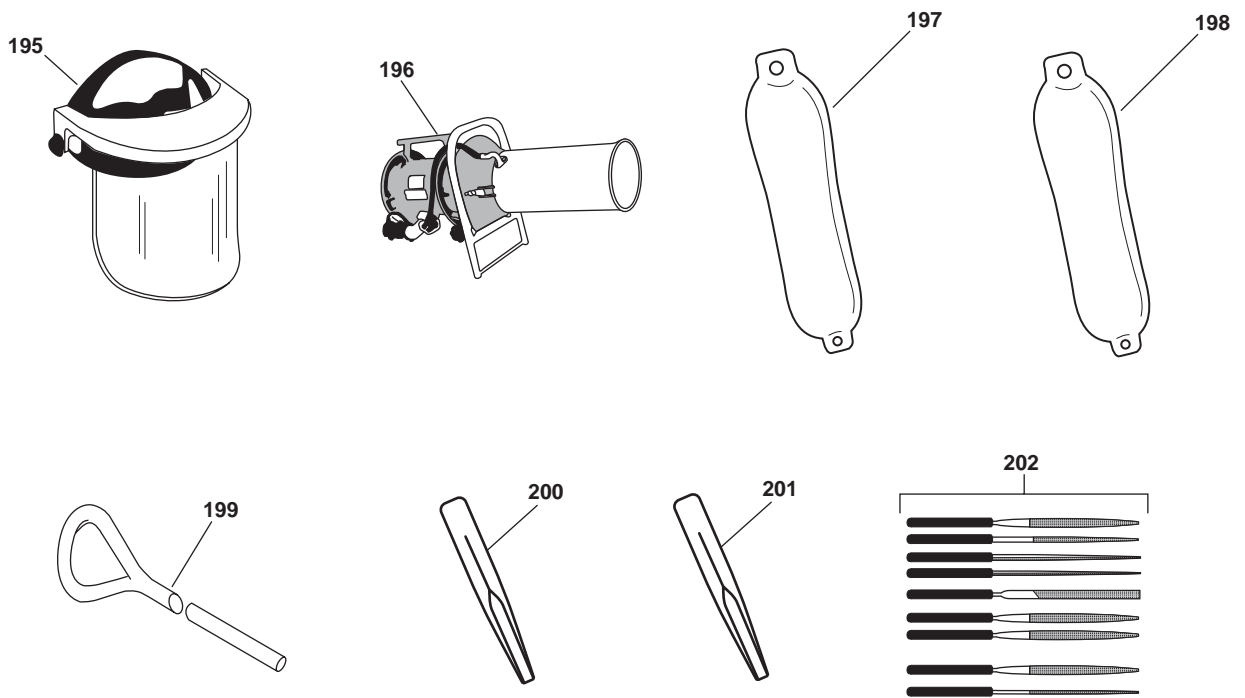


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
195	4240-00-542-2048	FACESHIELD, INDUSTRIAL, CLEAR, K11 PLASTIC VISOR (Machine Shop Cab 5) (80204) ANSI Z87.1	128	EA	5
196	4140-01-333-2224	FAN, VANEAXIAL (Bosuns Store Room) (52081) 2000 MODEL WF-20	128	EA	2
197	2040-00-128-7982	FENDER, MARINE 32 IN X 50 IN (Main Deck) (03950) 2040001287982	128	EA	6
198	2040-00-821-0808	FENDER, MARINE 16 IN X 36 IN (Main Deck) (80064) 805-1340571-16X36IN	128	EA	6
199	4020-01-344-0552	FIBER ROPE ASSEMBLY, SINGLE LEG (Bosuns Store Room S2) (0GU87) NIS-G-0213	128	EA	4
200	5120-00-223-8860	FID, 18 LONG, TYPE 1, STYLE A (Machine Shop Cab C) (58536) A-A-52129	128	EA	2
201	5120-00-223-8921	FID, 12 IN (81349) (Machine Shop) (58536) A-A-52129	128	EA	2
202	5110-00-204-2685	FILE SET, HAND (Machine Shop) (18037) 31.680	128	SE	1

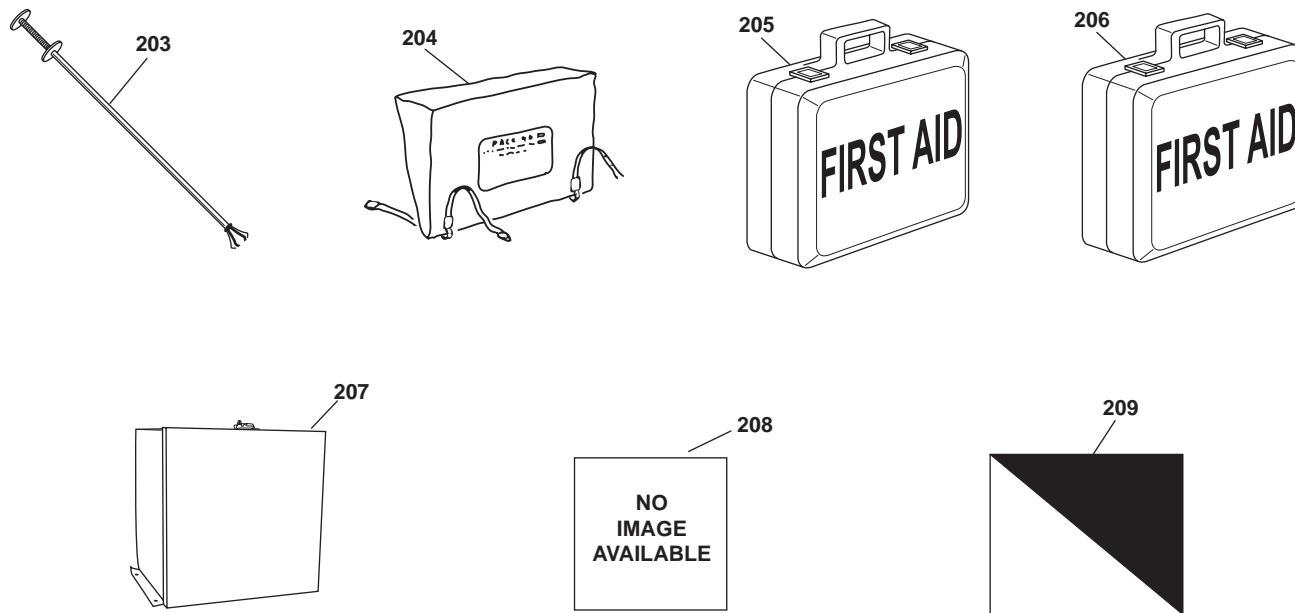


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
203	5120-01-276-0544	FINGER, MECHANICAL (DC Locker VIDMAR) (11083) 6V4950	128	EA	1
204	6545-00-656-1093	FIRST AID KIT, GENERAL PURPOSE, LIFEBOAT, 8 TO 12 PERSON (Bosuns Store Room) (04024) 6170-2 TY2	128	EA	2
205	6545-00-656-1094	FIRST AID KIT, SHIP, 25 TO 30 PERSON (Bosuns Store Room) (04024) 6170-6 TY3	128	EA	2
206	6545-01-526-9237	FIRST AID, BURN TREATMENT (Medical Locker) (1BJ97) AWK-1	128	KT	3
207	4730-00-470-6625	FITTING KIT, TUBE-PIPE (Machine Shop) (16236) CS4730-0125	128	EA	1
208	4920-00-373-9376	FIXTURE, AIRCRAFT MAINTENANCE (Machine Shop) (55974) QB73000-1	128	EA	1
209	8345-00-935-0478	FLAG, SIGNAL, "O" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0478	128	EA	1



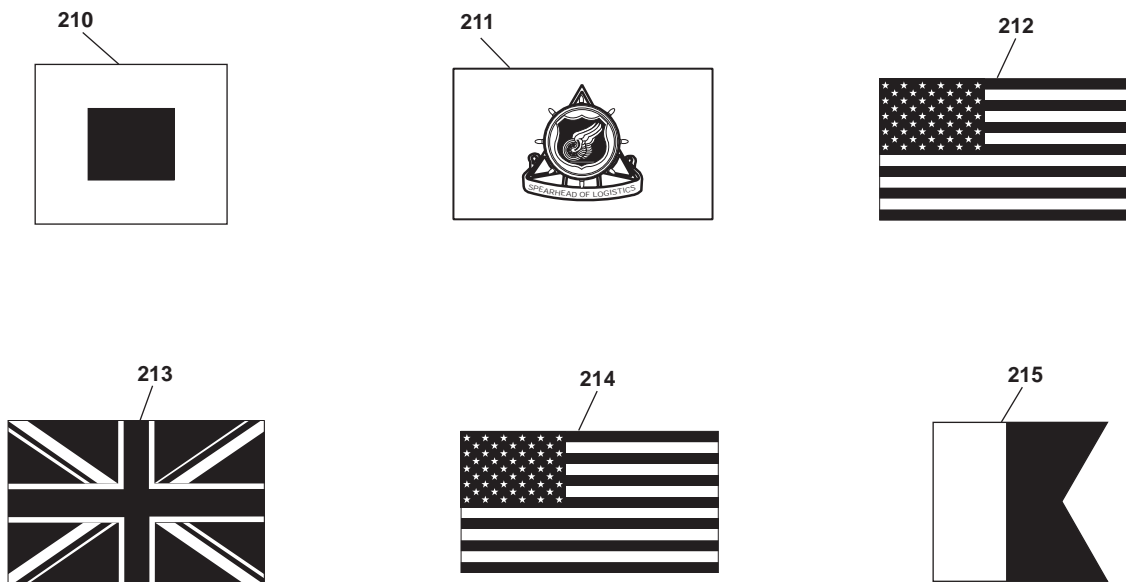


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
210	8345-00-935-0482	FLAG, SIGNAL, "S" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
211	8345-00-262-2419	FLAG, IDENTIFICATION VESSEL, TC (Pilothouse) (22571) 5-1-121	128	EA	4
212	8345-00-656-1434	FLAG, NATIONAL USA, 2.3' X 4.5' (Pilothouse)	128	EA	1
213	8345-00-656-1446	FLAG, NATIONAL, UNION JACK ( Pilothouse)	128	EA	2
214	8345-00-245-2040	FLAG, NATIONAL, UNITED STATES, 1.5' X 2.1' (Pilothouse)	128	EA	4
215	8345-00-935-0464	FLAG, SIGNAL, "A" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0464	128	EA	1

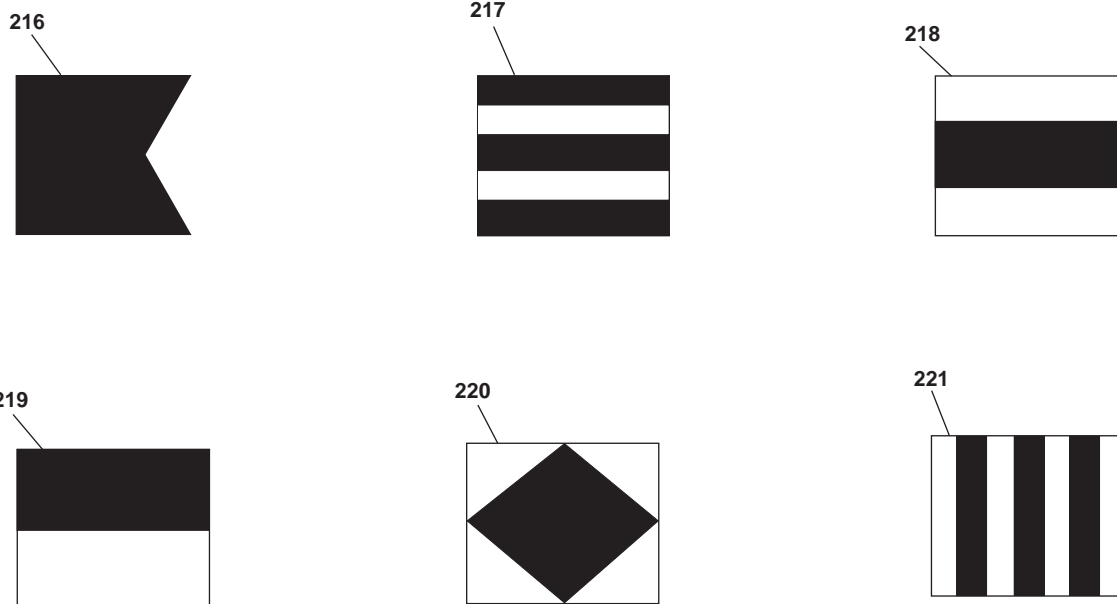
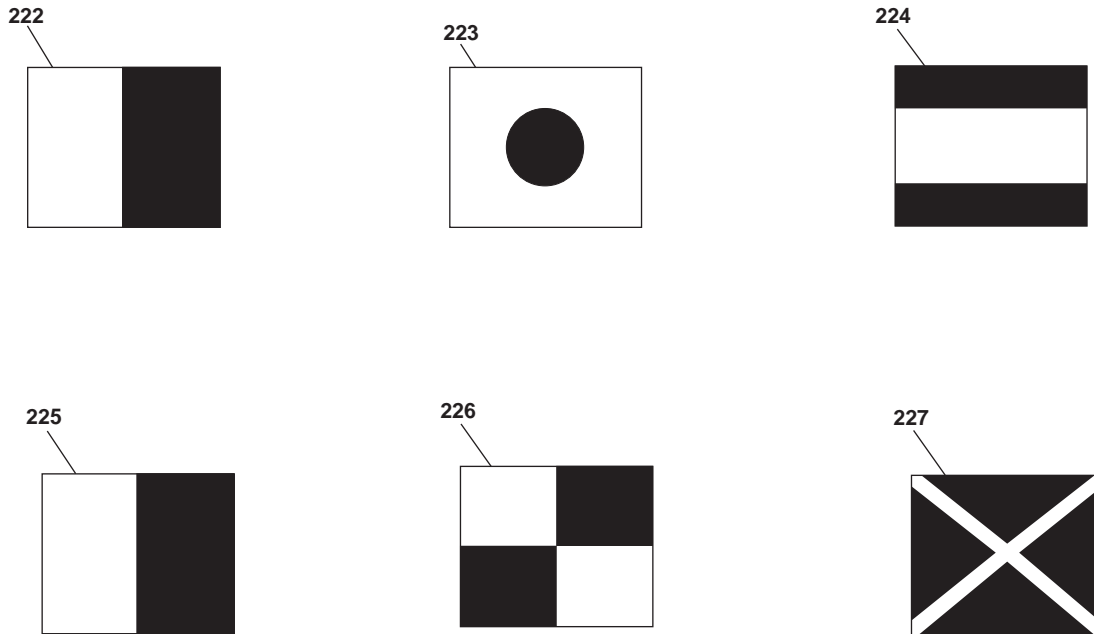


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
216	8345-00-935-0465	FLAG, SIGNAL, "B" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0465	128	EA	1
217	8345-00-935-0466	FLAG, SIGNAL, "C" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0466	128	EA	1
218	8345-00-935-0467	FLAG, SIGNAL, "D" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0467	128	EA	1
219	8345-00-935-0468	FLAG, SIGNAL, "E" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0468	128	EA	1
220	8345-00-935-0469	FLAG, SIGNAL, "F" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0469	128	EA	1
221	8345-00-935-0470	FLAG, SIGNAL, "G" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0470	128	EA	1



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
222	8345-00-935-0471	FLAG, SIGNAL, "H" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
223	8345-00-935-0472	(83421) 8345-00-935-0471 FLAG, SIGNAL, "I" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
224	8345-00-935-0473	(81349) 8345-00-935-0472 FLAG, SIGNAL, "J" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
225	8345-00-935-0474	(83421) 8345-00-935-0473 FLAG, SIGNAL, "K" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
226	8345-00-935-0475	(83421) 8345-00-935-0474 FLAG, SIGNAL, "L" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
227	8345-00-935-0476	(83421) 8345-00-935-0475 FLAG, SIGNAL, "M" INTN'L CODE, SIZE 8 (Pilothouse)	128	EA	1
		(81349) 8345-00-935-0476			

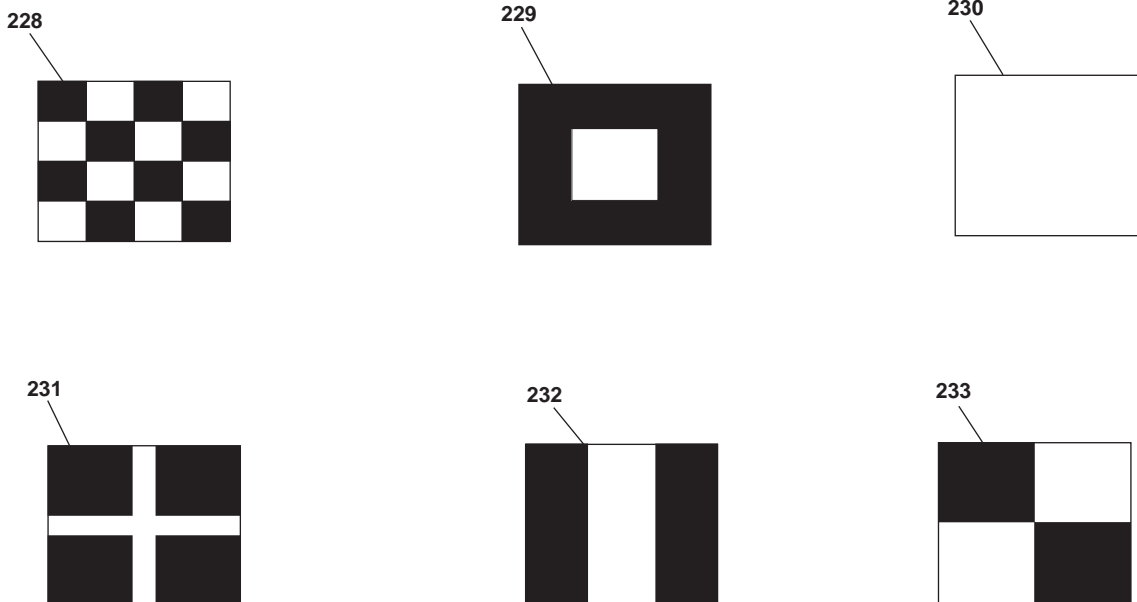


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
228	8345-00-935-0477	FLAG, SIGNAL, "N" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0477	128	EA	1
229	8345-00-935-0479	FLAG, SIGNAL, "P" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0479	128	EA	1
230	8345-00-935-0480	FLAG, SIGNAL, "Q" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0480	128	EA	1
231	8345-00-935-0481	FLAG, SIGNAL, "R" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0481	128	EA	1
232	8345-00-935-0483	FLAG, SIGNAL, "T" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0483	128	EA	1
233	8345-00-935-0484	FLAG, SIGNAL, "U" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0484	128	EA	1

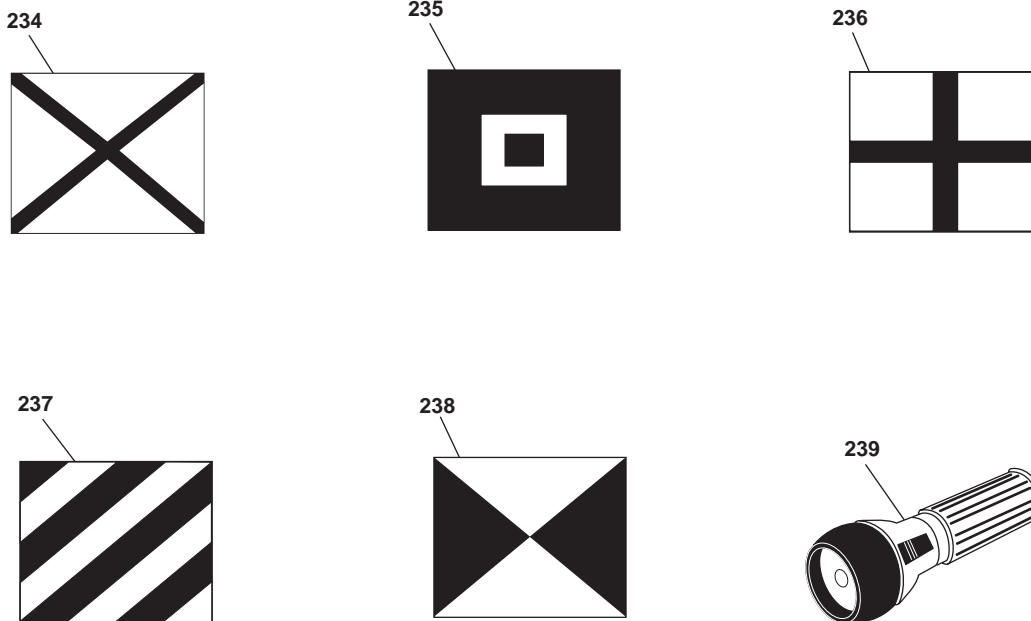


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
234	8345-00-935-0485	FLAG, SIGNAL, "V" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0485	128	EA	1
235	8345-00-935-0486	FLAG, SIGNAL, "W" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0486	128	EA	1
236	8345-00-935-0487	FLAG, SIGNAL, "X" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0487	128	EA	1
237	8345-00-935-0488	FLAG, SIGNAL, "Y" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0488	128	EA	1
238	8345-00-935-0489	FLAG, SIGNAL, "Z" INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0489	128	EA	1
239	6230-00-269-3034	FLASHLIGHT (Pilothouse) (84609) N35-IB	128	EA	10

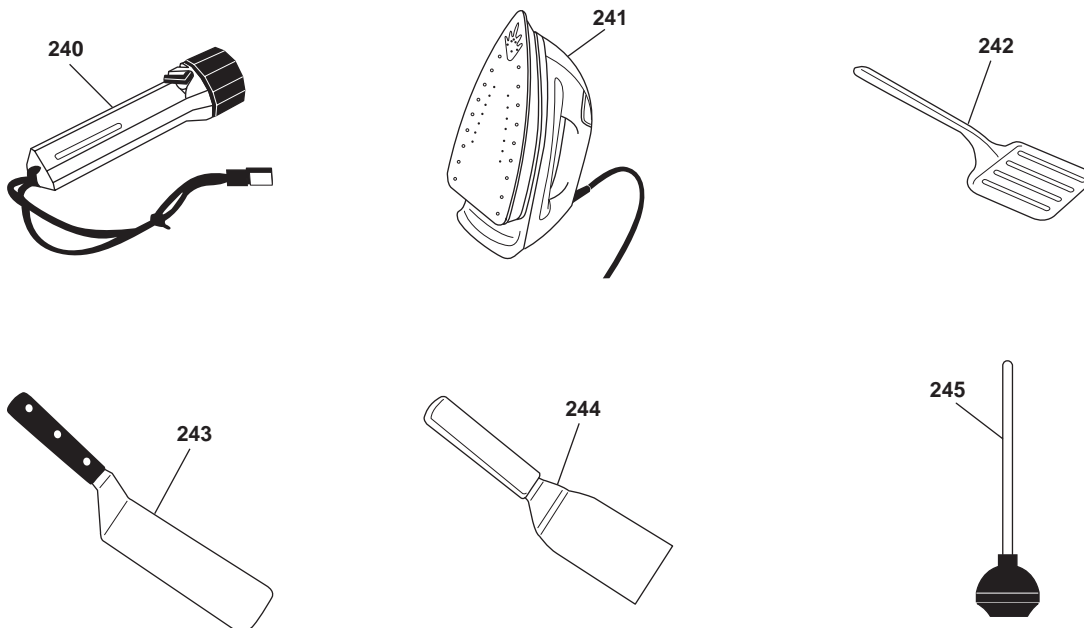
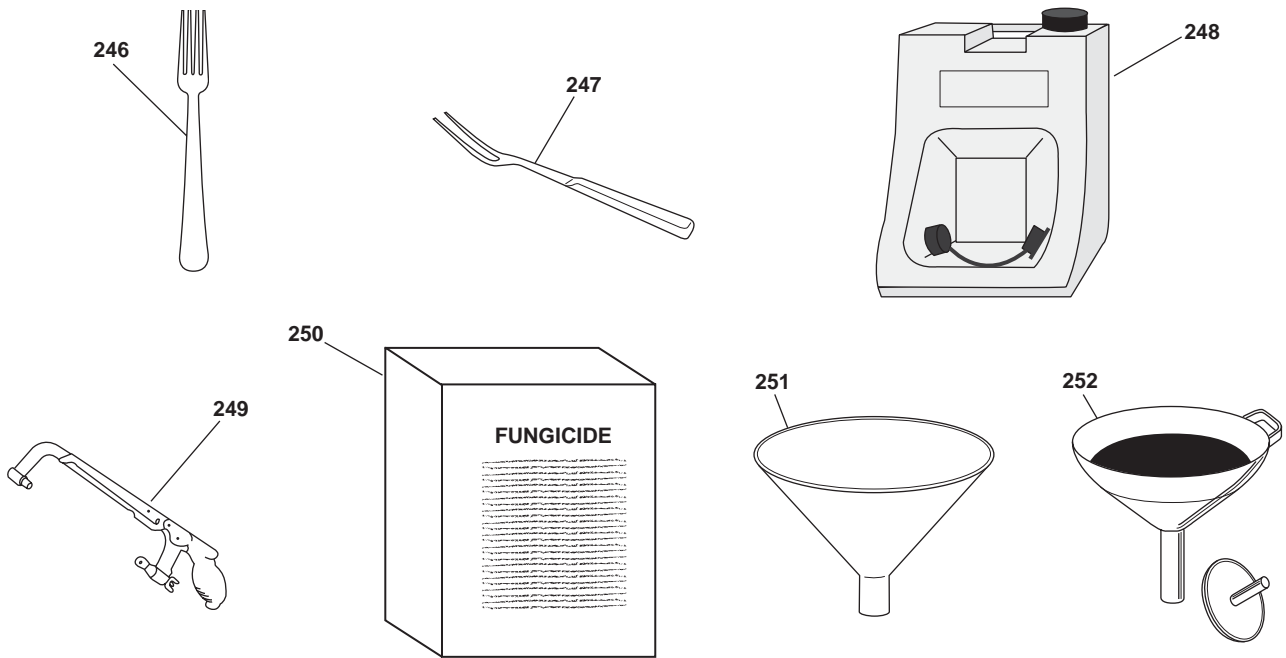


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
240	6230-00-264-8261	FLASHLIGHT WATERTIGHT (Towing Gear Locker) (1CSX9) MX-991/U	128	EA	14
241	7290-00-148-7068	FLAT IRON, ELECTRIC, STEAM AND DRY (Laundry Room) (0A987) 16210	128	EA	1
242	7330-00-810-1937	FOOD TURNER, 4-1/2" SLOTTED BLADE. (Galley) (58536) A-A-1640	128	EA	1
243	7330-00-634-1995	FOOD TURNER, CAKE 7-1/2" SOLID BLADE (Galley) (58536) A-A-1640	128	EA	3
244	7330-00-205-0617	FOOD TURNER, HAMBURGER, 3 X 4 2" BLADE (Galley) (58536) A-A-1640	128	EA	1
245	5120-00-849-1141	FORCE CUP, PLUMBERS BALL SHAPED, TYPE II (Machine Shop D8) (84849) BALL TY BB2 GSA	128	EA	2



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
246	7340-00-241-8169	FORK, TABLE, PLAIN, 24 TO A BOX (Galley)	128	BX	2
247	7340-00-223-7792	FORK, FOOD SERVICE, 21" LG (Galley)	128	EA	2
248	4240-01-258-1245	FOUNTAIN, EYE AND FACE WASH (DC Locker)	128	EA	2
249	5110-00-289-9657	FRAME, HAND, HACKSAW, FOR 10" TO 12" BLADE TY 1, CL 1, STYLE 1 (Machine Shop Cab C)	128	EA	4
250	6840-01-267-4346	FUNGICIDE, (EYE & FACE WASH FOUNTAIN) (Medical Locker)	128	BX	1
251	7240-00-404-9793	FUNNEL, PLASTIC, 1 QT (Machine Shop)	128	BX	2
252	7240-00-144-5995	FUNNEL, STEEL W/STRAINER, 1 GAL (On Station)	128	EA	1

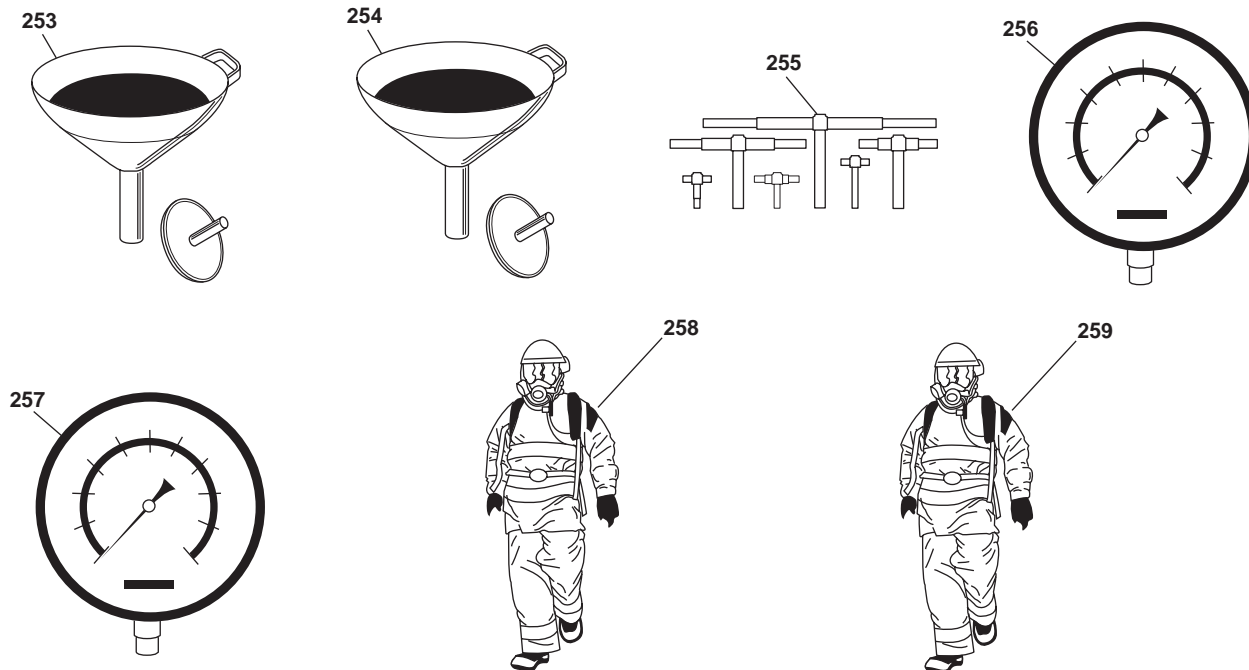


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
253	7240-00-230-2416	FUNNEL, W/SPOUT 1/2 QT CAP (Machine Shop) (81348) RRF800	128	EA	1
254	7240-00-230-2393	FUNNEL, WITH SPOUT AND STRAINER, GALVAN (DC Main Deck DF) (3T537) 50	128	BX	1
255	5210-00-473-9350	GAGE SET, TELESCOPING (Machine Shop CAB C) (SA251) 155-903	128	SE	1
256	6685-01-351-6868	GAGE, PRESSURE, DIAL INDICATING (DC Locker) (26952) G2515L	128	EA	1
257	6685-00-251-1360	GAUGE, PRESSURE, DIAL (Tool Cage EOS B3) (38508) C233A	128	EA	1
258	4210-01-468-5565	GEAR, FIRE PROTECTIVE (DC Main Deck DF) (68219) GUARD97(NAVY1)- SZ L-REGULAR	128	EA	4
259	4210-01-468-5551	GEAR, FIRE PROTECTIVE (DC Main Deck DF) (68219) GUARD97/NAVY1- SZ M-REGULAR	128	EA	4



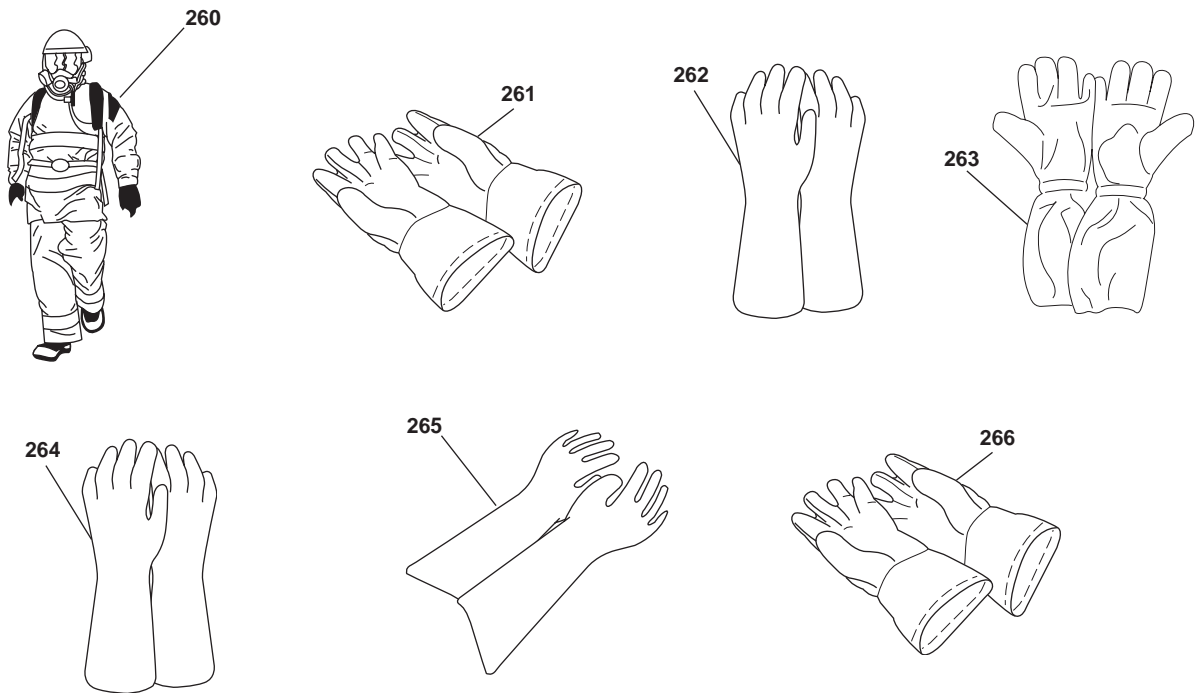


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
260	4210-01-468-5671	GEAR, FIRE PROTECTIVE (DC Main Deck DF) (68219) NAVY1/GUARD97- SIZE XL-REGULAR	128	EA	4
261	8415-00-264-3618	GLOVE SHELLS, ELECTRICAL WORKERS' (Bosun's Locker) (81346) ASTM F 696-85	128	PR	1
262	8415-00-266-8677	GLOVES, RUBBER, INDUSTRIAL (Machine Shop CAB A) (81349) MIL-DTL-32066	128	PR	2
263	8415-01-267-9661	GLOVES, ANTIFLASH (Bosun's Locker) (81349) MIL-G-2874	128	PR	29
264	8415-01-013-7384	GLOVES, CHEMICAL AND OIL PROTECTIVE (Bosun's Locker) (81349) MIL-G-87066	128	PR	2
265	8415-01-158-9455	GLOVES, ELECTRICAL WORKERS' (Bosun's Locker) (91019) E011B SIZE 10	128	PR	1
266	4210-01-476-5010	GLOVES, FIREFIGHTER, SM (Bosun's Locker) (1HT35) 5229 SIZE SMALL	128	PR	2

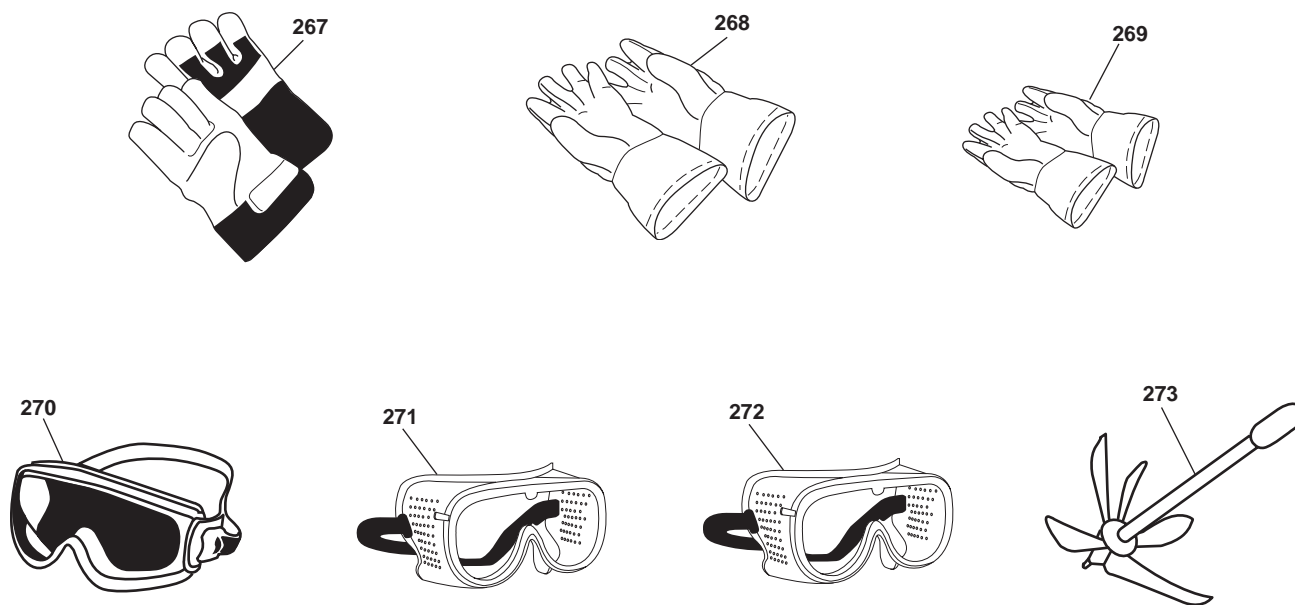


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
267	8415-01-394-0215	GLOVES, LEATHER (Bosun's Locker) (04024) 6170-5	128	PR	2
268	8415-00-268-7860	GLOVES, WELDERS, GUNN CUT, REG SIZE (Machine Shop CAB A) (58536) A-A-50022	128	PR	2
269	8415-00-268-7869	GLOVES, MEN'S AND WOMEN'S (Bosun's Locker) (58536) A-A-55060	128	PR	2
270	4240-00-764-5152	GOGGLES, INDUSTRIAL (Machine Shop) (02622) 484B	128	EA	1
271	4240-00-052-3776	GOGGLES, INDUSTRIAL PLASTIC, SAFETY TYPE (Machine Shop) (80204) 4240-00-052-3776	128	PR	8
272	4240-00-190-6432	GOGGLES, INDUSTRIAL (Machine Shop D5) (80204) ANSI Z87.1-1989	128	PR	2
273	2040-00-238-9060	GRAPNEL, MARINE, 5 PRONG (Paint Locker) (81349) MIL-G-613	128	EA	1

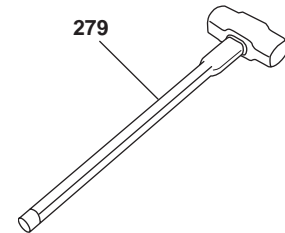
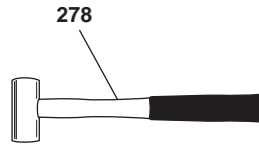
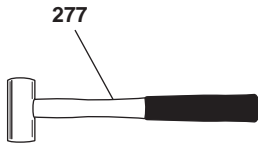
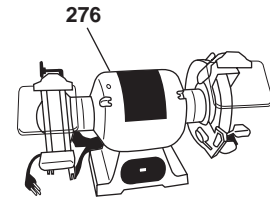
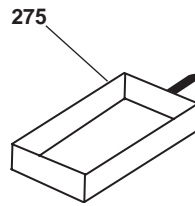
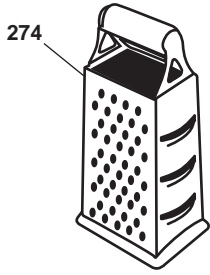


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
274	7330-00-272-2518	GRATER, FOOD (Galley)	128	EA	1
275	7330-00-243-3418	GRIDDLE PLATE (Galley)	128	EA	1
276	3415-01-382-0745	GRINDING AND BUFFING MACHINE, UTILITY (Workshop, AMS2)	128	EA	1
277	5120-00-194-1648	HAMMER, HAND, COPPER, SOFT HEAD BARREL, 2 LBS (Tool Cage EOS A1)	128	EA	1
278	5120-00-224-4121	HAMMER, HAND, COPPER, SOFT HEAD, 1 LB (Bosuns Store Room S3)	128	EA	1
279	5120-00-230-7843	HAMMER, HAND, DOUBLE FACED SLEDGE, 20 LBS (Machine Shop, AMS2)	128	EA	2

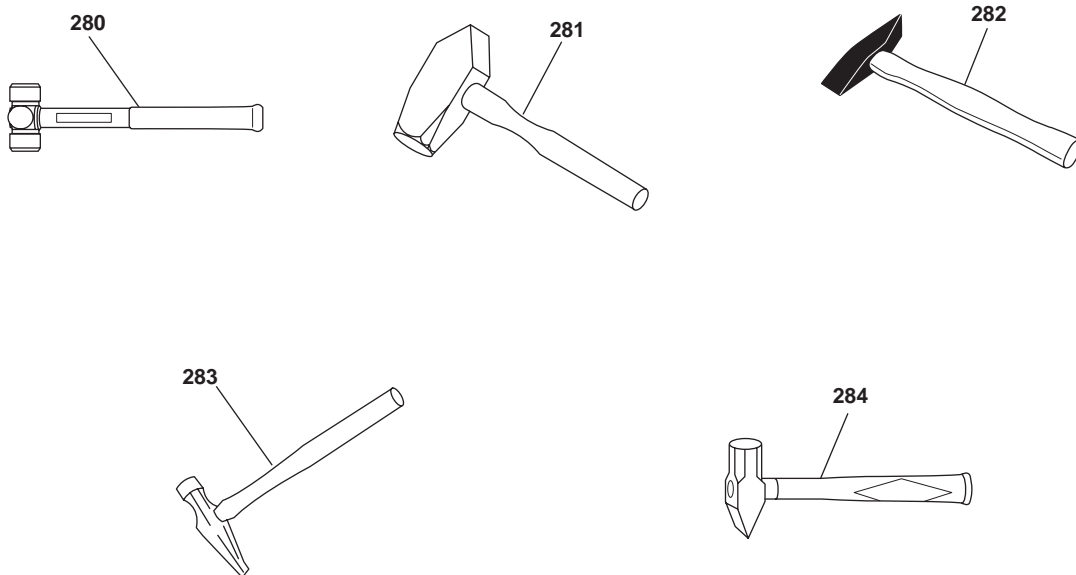


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
280	5120-00-203-4656	HAMMER, HAND, DOUBLE FACE, 2-1/2 LBS (Machine Shop, AMS2) (1BZ19) 33009	128	EA	1
281	5120-00-903-9303	HAMMER, HAND, NONSPARKING AND NON-MAGNETIC, 2-1/2 LBS, FIBERGLASS HANDLE, CLASS 2 (Machine Shop D1) (01DJ4) H-41	128	EA	2
282	5120-00-224-4111	HAMMER, HAND, SCALING, BOILER PICK 1 LB, TYPE 6 (DC Main Deck S5) (79171) SC16	128	EA	4
283	5120-00-255-1476	HAMMER, HAND, SHIP'S MAUL 5 LBS, TYPE 12 (DC Locker) (58536) A-A-1285	128	EA	1
284	5120-00-224-4130	HAMMER, HAND, SLEDGE, BLACKSMITHS CROSS-PEEN, 12 LBS, TYPE 10, CLASS 2 (Machine Shop Cab A) (63704) 11443	128	EA	2

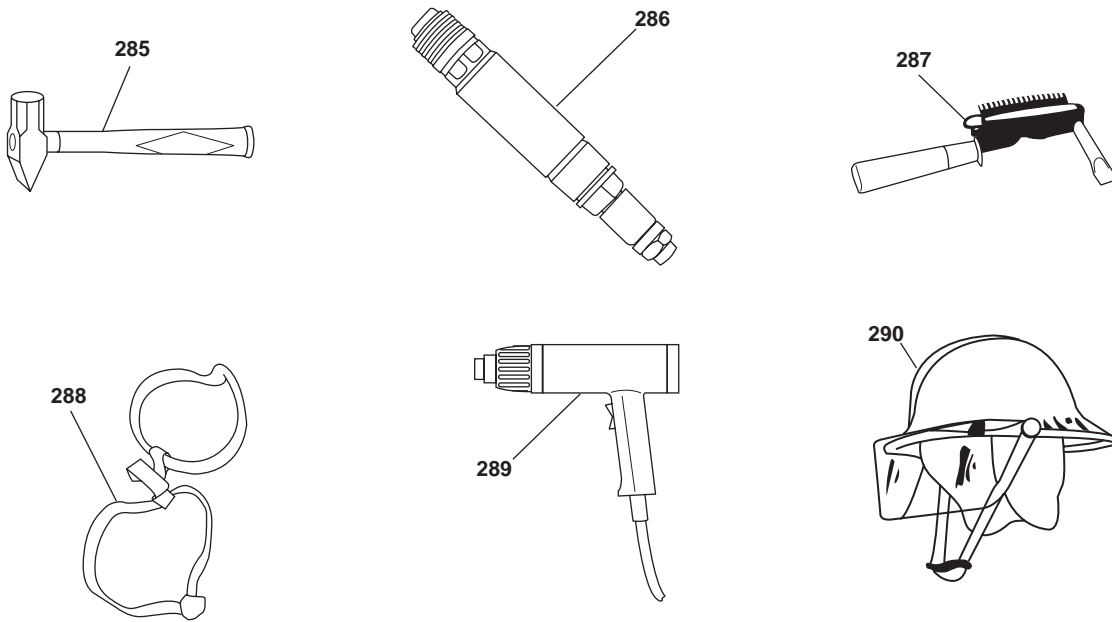


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
285	5120-00-242-3915	HAMMER, HAND, SLEDGE, BLACKSMITHS CROSS-PEEN, 3 LBS, TYPE 10, CLASS 2 (DC main Deck S5) (80642) 3B	128	EA	2
286	5130-00-190-6442	HAMMER, PNEUMATIC, PORTABLE, SCALING, TYPE 1, STYLE A  (Machine Shop, AMS2) (79852) 5130-00-190-6442	128	EA	2
287	5120-00-240-3096	HAMMER-BRUSH, WELDERS CHISEL HEAD W/2 EXTRA BRUSHES, TYPE 4, STYLE D (DC Vidmar DC) (00741) 1329-0280	128	EA	2
288	4240-00-022-2522	HARNESS, SAFETY, INDUSTRIAL (Bosun's Locker) (55799) 502644	128	EA	4
289	4940-01-316-1133	HEAT GUN, ELECTRIC (Machine Shop, AMS2) (83284) VT-750C	128	EA	1
290	4210-01-271-8069	HELMET, FIREFIGHTER (DC Locker) (68219) LFH3712 A-41	128	EA	8

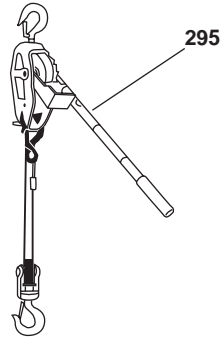
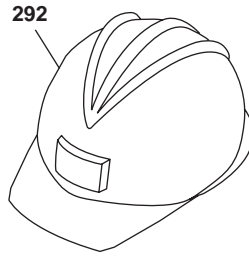
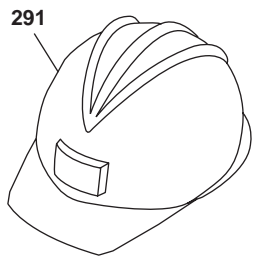


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
291	8415-00-935-3136	HELMET, SAFETY, CONSTRUCTION, ORANGE (Bosuns Store Room S25) (80204) ISEA/ANSI Z89.1	128	BX	2
292	8415-00-935-3139	HELMET, SAFETY, CONSTRUCTION, WHITE (Bosuns Store Room S25) (80204) ISEA/ANSI Z89.1	128	EA	6
293	4240-00-540-0623	HELMET, WELDERS (Machine Shop) (81348) 4240-00-540-0623	128	EA	1
294	3950-00-965-0096	HOIST, CHAIN, HAND-OPERATED, SPNSN 2 TON CAPACITY, CLASS 2, TYPE C (Tool Cage EOS A4) (81349) MILH904	128	EA	2
295	3940-00-150-7108	HOIST, WIRE ROPE, HAND 3/4 TON 10 FT (Towing Gear Locker) (93601) 3000-30M	128	EA	2
296	3950-00-235-4235	HOIST, CHAIN (Machine Shop, AMS2) (81349) MILH904CLASS1TYPEH STYLE1	128	EA	1

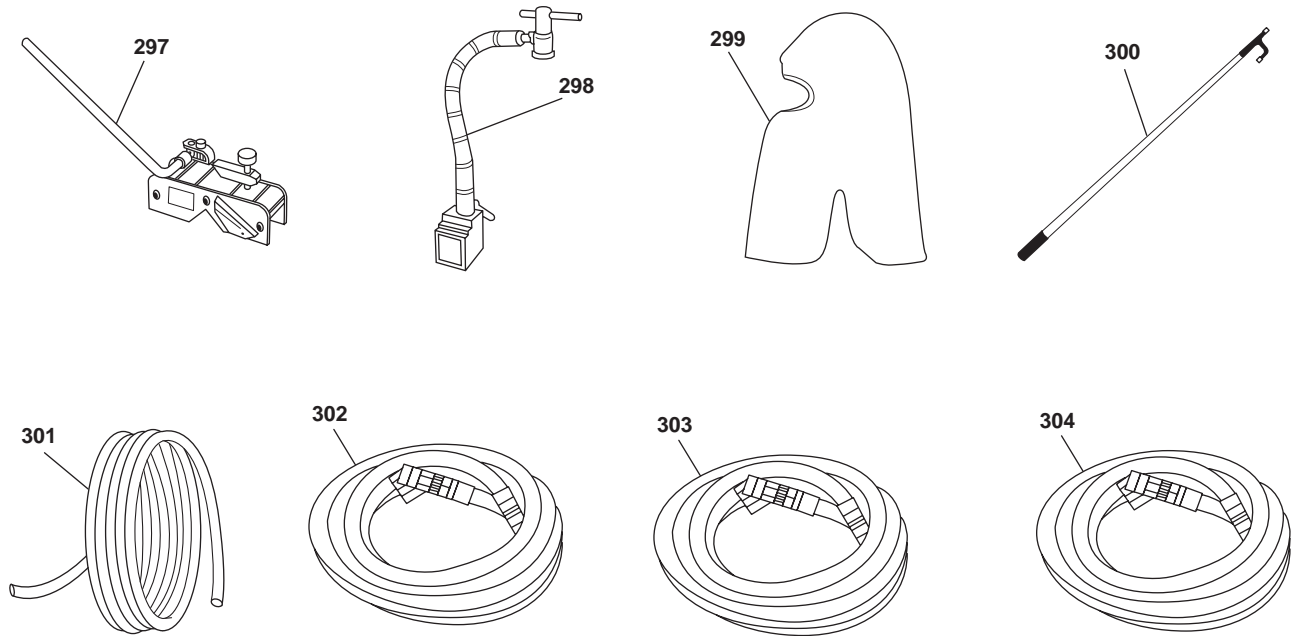


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
297	5210-00-390-5446	HOLDER, DIAL, TEST INDICATOR (Machine Shop CAB C) (96168) 200M	128	EA	1
298	5210-00-138-5333	HOLDER, DIAL, INDICATOR, MAGNETIC (Machine Shop D9) (57163) 657T	128	EA	1
299	8415-01-268-3473	HOOD, ANTIFLASH (Bosun's Locker) (64067) 8415-01-268-3473	128	EA	29
300	2040-00-268-9250	HOOK, BOAT, 10' (Bosuns Store Room) (21530) H389	128	EA	4
301	4720-00-277-7225	HOSE ASSEMBLY, AIR DUCT (Machine Shop) (80064) 53801-607819	128	EA	2
302	4210-00-776-0657	HOSE ASSEMBLY, NONMETALLIC (Bosuns Store Room) (25472) 47-60-4071	128	EA	2
303	4210-00-725-9234	HOSE ASSEMBLY, NONMETALLIC (Bosuns Store Room) (96400) 592223	128	EA	2
304	4210-01-248-8822	HOSE ASSEMBLY, NONMETALLIC (Fan Room Main Deck) (81349) M24606-150-50	128	EA	4

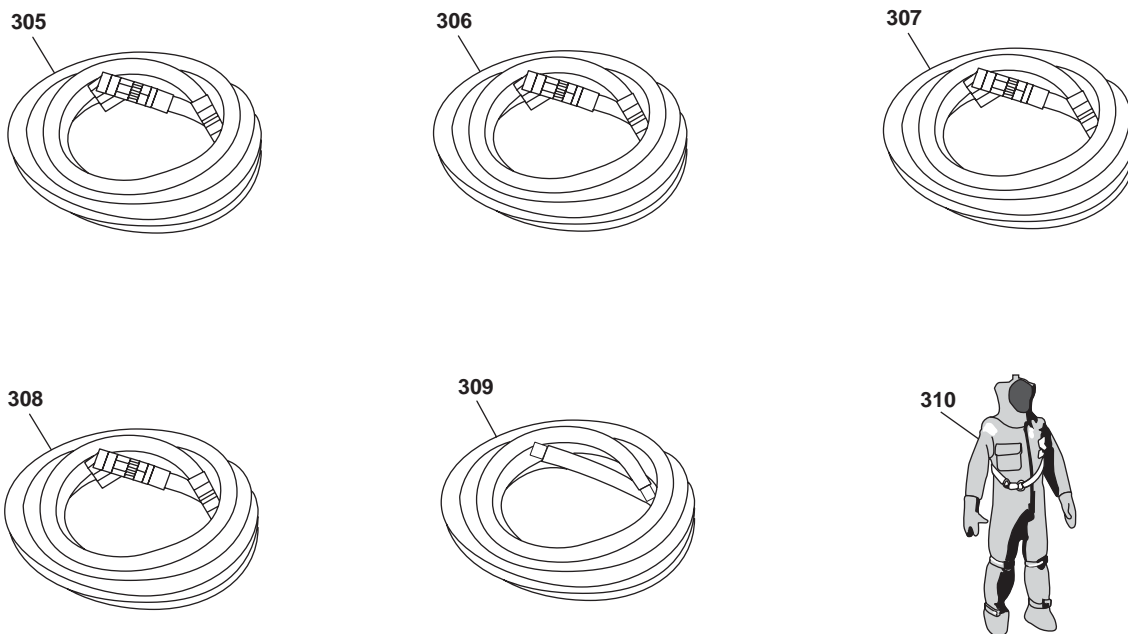


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
305	4720-00-293-7874	HOSE ASSEMBLY, NONMETALLIC, AIR, RUBBER WRAPPED, 112", CLASS 1 (Machine Shop) (81348) A-A-59565	128	EA	4
306	4210-00-595-1838	HOSE ASSEMBLY, NONMETALLIC, WATER 3/4 ID 50' LG (Bosuns Store Room) (04024) 5100-185	128	LG	4
307	4210-01-143-1404	HOSE ASSEMBLY, NONMETALLIC, FIRE FIGHTING, ORANGE, 1-1/2 IN. X 50 FT (Fire Stations) (81349) M24606-175-50	128	EA	11
308	4210-01-220-6648	HOSE ASSY, NONMETALLIC, 4 IN, TYPE 1, CLASS B, SZ 4 (Bosun's Locker) (81349) M24606-400-50	128	EA	2
309	4320-01-529-4564	HOSE, DISPENSING PUMP (DC Locker) (39428) 4257K21	128	EA	2
310	4220-01-251-6466	SUIT, SURVIVAL, COLD (Bosuns Store Room S14) (63806) ISS-590	128	EA	30



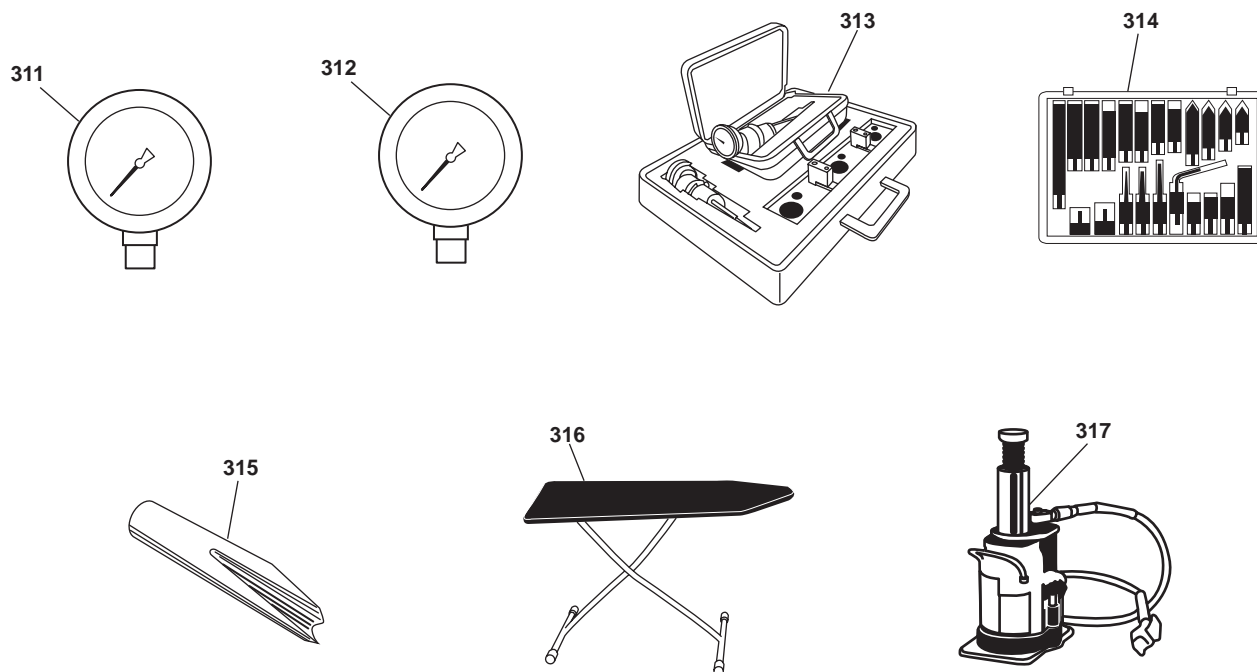


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
311	5210-00-277-8840	INDICATOR DIAL, 1-1/2" DIA, 0-100 MUSHROOM (Machine Shop CAB C) (57163) 196A	128	EA	1
312	5210-00-377-6525	INDICATOR DIAL, 2-3/16", DIA 0-50-0, REGULAR C (Machine Shop CAB C) (37163) 399A	128	EA	1
313	4910-01-332-6932	INDICATOR, PISTON POSITION, IGNITION TIMING (DC Locker VIDMAR) (11083) 8T5300	128	EA	1
314	4940-01-268-2200	INDICATOR, POINT SET (DC Locker VIDMAR) (11083) 9U7400	128	EA	1
315	5120-01-363-8597	INSERTER, SEAL (Machine Shop, AMS2) (96151) 600496-000	128	EA	1
316	7280-00-663-7300	IRONING BOARD 16 IN X 54 IN (Laundry Room) (97158) 53-6041	128	EA	1
317	5120-00-224-7330	JACK, HYDRAULIC, HAND (Workshop, AMS2) (99696) 5029209-111-101	128	EA	1

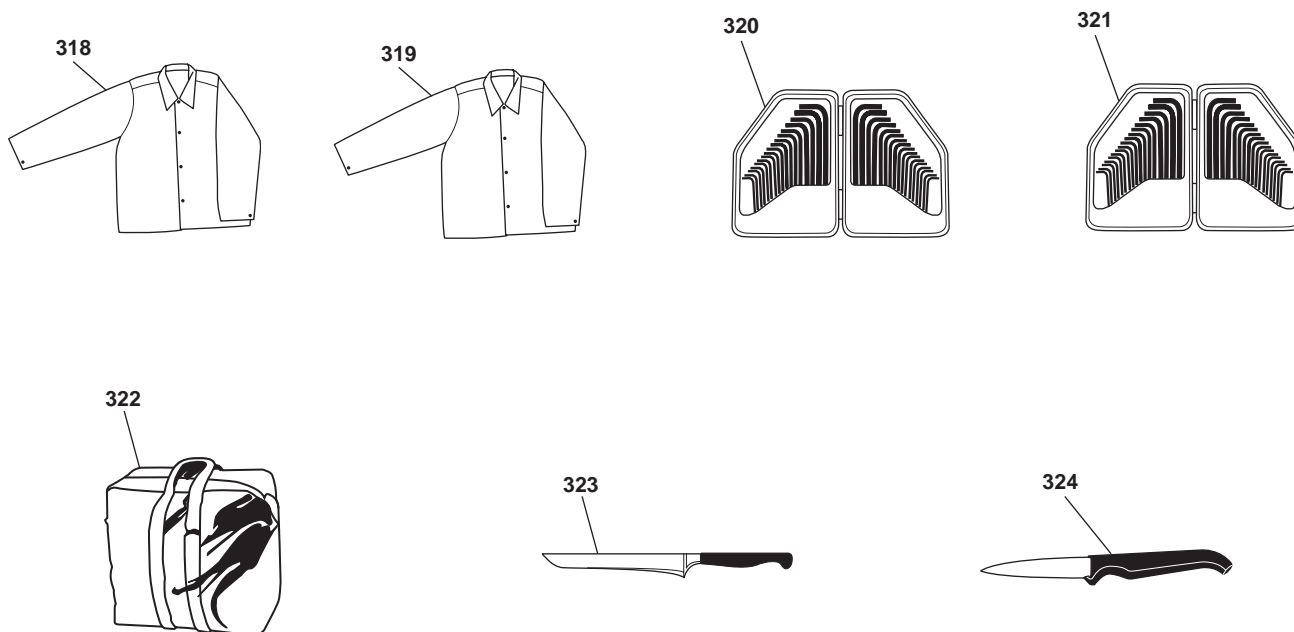


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
318	8415-00-268-8263	JACKET, WELDER'S (Machine Shop CAB A) (58536) A-A-55098 (SZ38)	128	EA	1
319	8415-00-268-8264	JACKET, WELDER'S (Machine Shop CAB A) (58536) A-A-55098 (SZ42)	128	EA	2
320	5120-01-087-3616	KEY SET, SOCKET HEAD (METRIC) (Machine Shop D9) (80204) B18.3.2M	128	SE	1
321	5120-00-935-4641	KEY SET, SOCKET HEAD SCREW, 20 PIECE, TYPE 1, CLASS 1 (Cleaning LKR Main Deck) (1JU00) 88028	128	SE	1
322	8460-00-606-8366	KIT BAG, FLYER'S (Bosun's Locker) (83421) 8460-00-606-8366	128	EA	12
323	7340-00-197-1271	KNIFE, BONING 6" CARBON STEEL BLADE (Galley) (58536) A-A-2733	128	EA	2
324	7340-00-488-7939	KNIFE, PARING, 3-1/2" HI- CARBON BLADE (Galley) (88001) 0316	128	EA	2

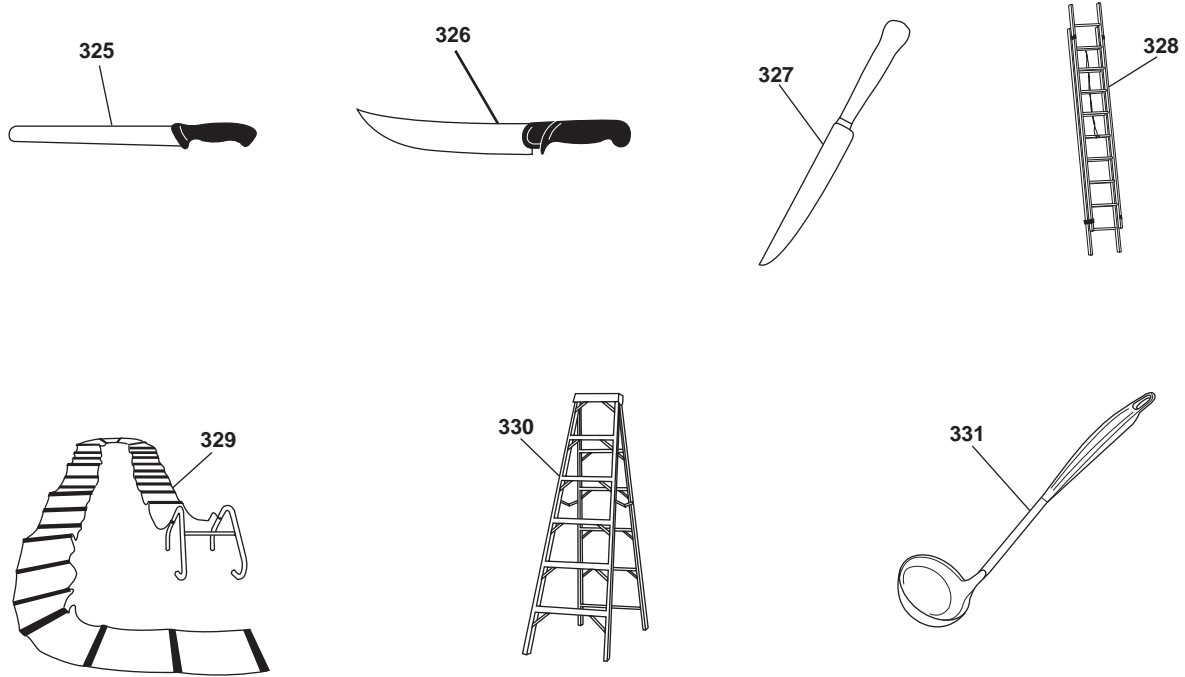


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
325	7340-00-406-6531	KNIFE, SLICING, 12" CORROSION RESISTANT (Galley) (58536) A-A-2733	128	EA	2
326	7340-00-197-1274	KNIFE, STEAK, SCIMITAR 10 LG (Galley) (58536) A-A-2733	128	EA	2
327	7340-00-060-6057	KNIFE, TABLE, CRESCENT (Galley) (80244) 7340-00-060-6057	128	BX	2
328	5440-00-221-0346	LADDER, EXTENSION, WOOD (Machine Shop D5 (3EA)) (45826) LEL-20	128	EA	1
329	2090-00-242-2511	LADDER, JACOBS (Bosuns Store Room) (53711) 804-5959234-15FT	128	EA	2
330	5440-00-514-4485	LADDER, STEP, ALUMINUM, 6 FT, TYPE 1 (AMS2) (80204) ANSI A14.2	128	EA	2
331	7330-00-685-5330	LADLE, KITCHEN, 12 OZ (Galley) (80244) 7330-00-685-5330	128	EA	1

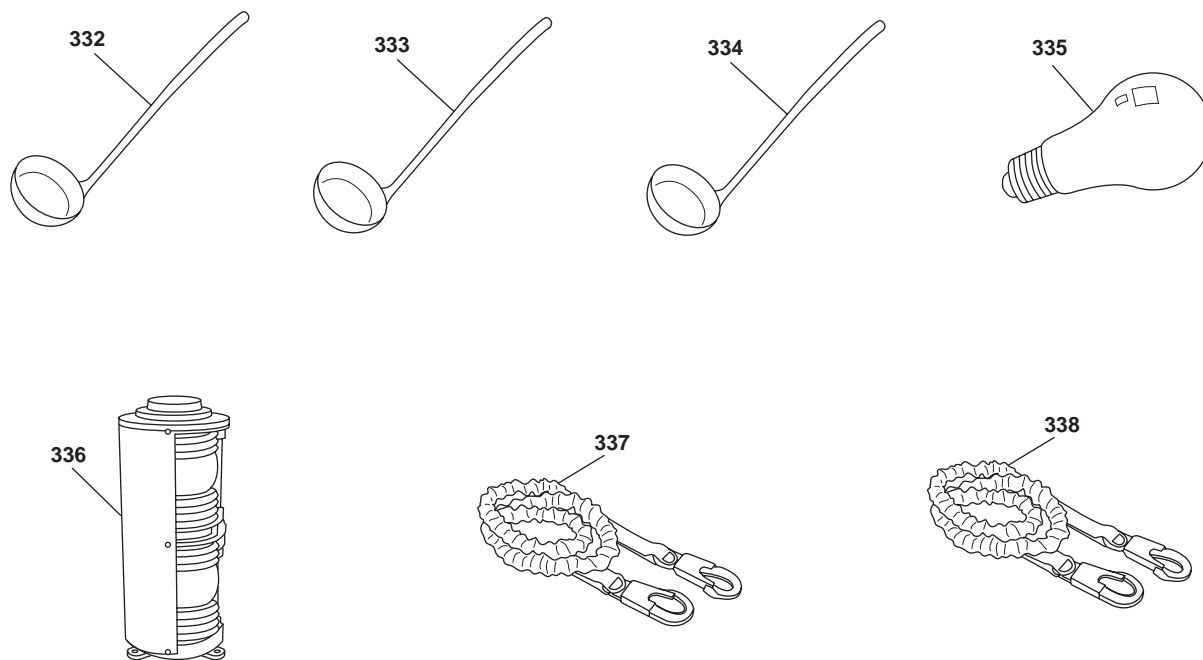


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
332	7330-00-254-4793	LADLE, KITCHEN 2 OZ (Galley) (80244) 7330-00-254-4793	128	EA	1
333	7330-00-680-0865	LADLE, KITCHEN, 4 OZ (Galley) (80244) 7330-00-680-0865	128	DZ	2
334	7330-00-248-1153	LADLE, KITCHEN, 8 OZ STAINLESS STEEL, W/O POURING UP (Galley) (80244) 7330-00-248-1153	128	EA	2
335	6240-01-380-1121	LAMP, INCANDESCENT (Bosun's Locker) (3CUT7) 260	128	BX	1
336	6230-01-181-9893	LANTERN, MARINE (NAVIGATION LIGHT) (Fitted) (28763) FA-249	128	EA	5
337	4240-00-022-2518	LANYARD, SAFETY HARN (Bosuns Store Room A16) (86809) 505002	128	EA	4
338	4240-00-022-2521	LANYARD, SAFETY, SHOCK ABSORBING (Towing Gear Locker) (8Z172) 400ABN	128	EA	4

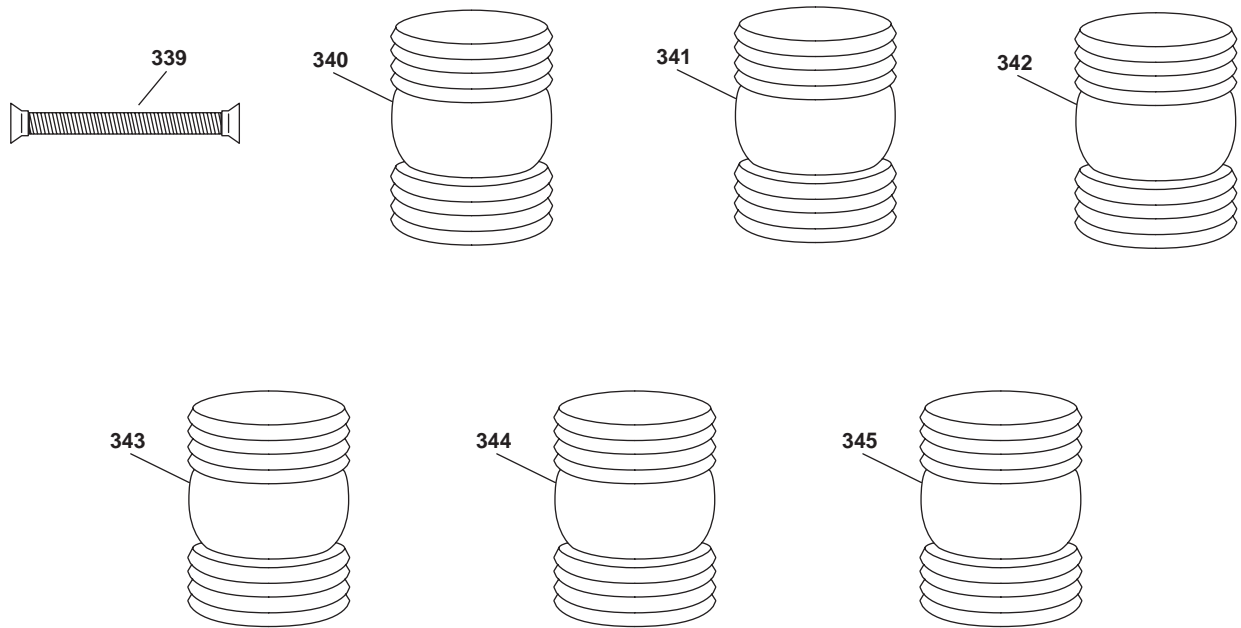


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
339	5120-00-289-0502	LAPPER, POPPET VALVE, GRADE A (Machine Shop D2) (58536) A-A-59221	128	EA	1
340	6220-00-376-1482	LENS, CLEAR (Towing Gear Locker) (28763) 8086-0001	128	EA	3
341	6220-00-376-1538	LENS, CLEAR, FOR NAVIGATION LIGHT TOWING (Towing Gear Locker) (28763) 8086-0089	128	EA	1
342	6210-01-316-8227	LENS, GREEN (Towing Gear Locker) (28763) 8086-0003	128	EA	3
343	6220-00-376-1486	LENS, GREEN, NAVIGATION LIGHT TOWING (Towing Gear Locker) (28763) 8086-0087	128	EA	3
344	6210-01-316-8226	LENS, RED (Towing Gear Locker) (28763) 8086-0002	128	EA	3
345	6220-00-376-1483	LENS, RED, NAVIGATION LIGHT TOWING (Towing Gear Locker) (28763) 8086-0086	128	EA	3

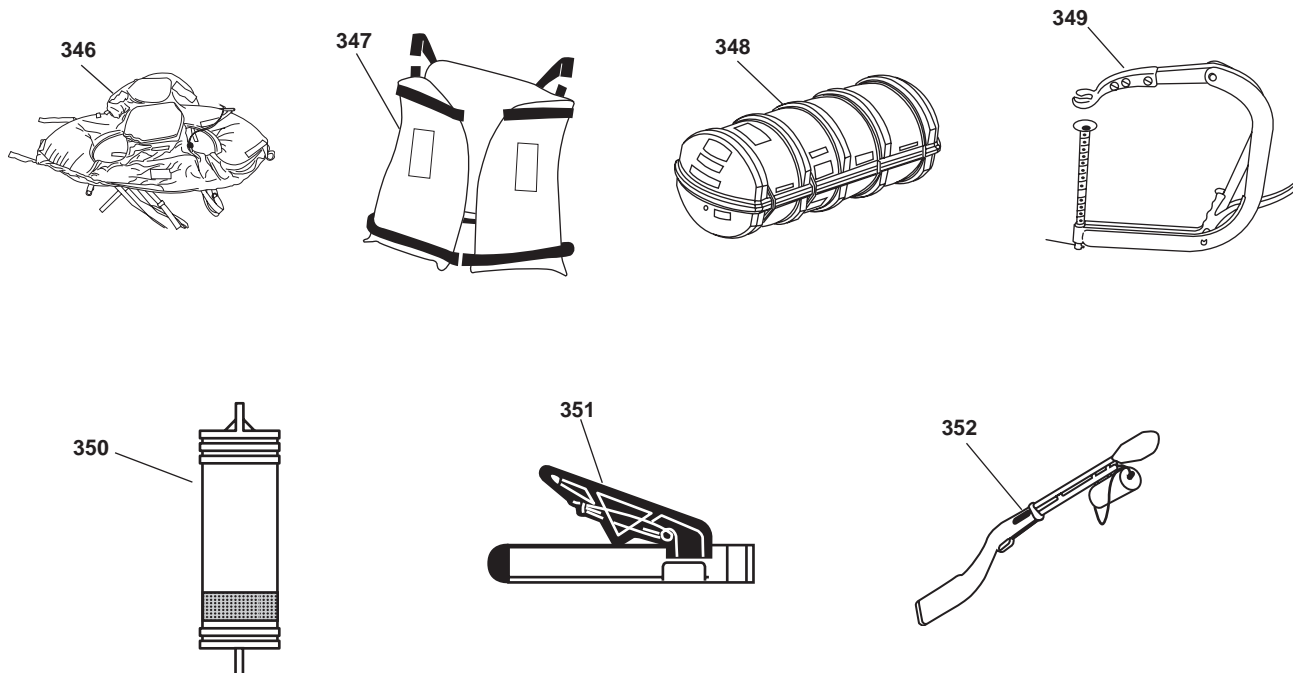


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
346	4220-01-485-1135	LIFE PRESERVER, VEST W/COLLAR, ORANGE (Fan Room Main Deck) (63806) MODEL 600-ORG-NAV	128	EA	30
347	4220-01-415-9817	LIFE PRESERVER, VEST (Bosuns Store Room S5) (63806) IWV-222	128	EA	12
348	4220-01-444-6260	LIFERAFT, INFLATABLE (Fitted) (074V1) 00013592	128	EA	2
349	5120-00-239-8686	LIFTER, VALVE SPRING SIZE 2, TYPE 1 (Machine Shop D1) (58536) A-A-3037	128	EA	1
350	6230-01-143-4778	LIGHT, MARKER, DISTRESS (Pyrotechnics Locker) (63607) SN-TD	128	EA	12
351	6260-01-086-8077	LIGHT, SURVIVAL, PERSONNEL, CHEMILUMINESCENE (Stored in Staterooms) (0BY83) 9-80770	128	BX	2
352	1095-00-392-2980	LINE THROWING DEVICE (Small Arms Locker) (75324) GR52CK	128	SE	1

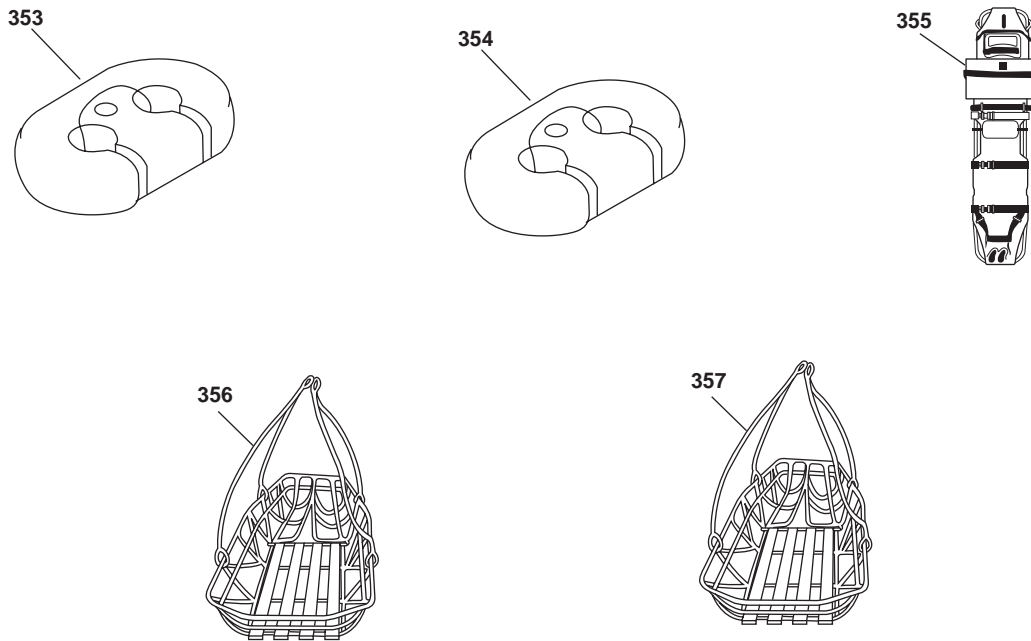


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
353	4010-00-106-9468	LINK, CHAIN, DETACHABLE HIGH STRENGTH, W/HAIR PIN, USN BUSHIP PLAN 312603-921790 MIL-L-2710A (TOOL CAGE EOS A4) (80064) S2603-921790SZ1 1-2WHAIRPIN	128	EA	7
354	4010-00-106-9472	LINK, CHAIN, DETACHABLE HIGH STRENGTH, W/HAIR PIN, USN BUSHIP PLAN 52603-921790, MIL-L-2710A (Towing Gear Locker) (80064) S2603-860062SZ1WHAIRPIN	128	EA	4
355	6545-01-155-1598	LITTER SUPPORT SET (Bosun's Locker) (04624) G-OSR-4-8/82 LITTER	128	EA	2
356	6530-01-187-0104	LITTER, RIGID, SEA-AIR, MEDICAL EVAC. (DC Locker) (64249) 402	128	EA	1
357	6530-00-042-8131	LITTER, RIGID, STOKES (01 Deck, Aft) (89875) 20748S	128	EA	1

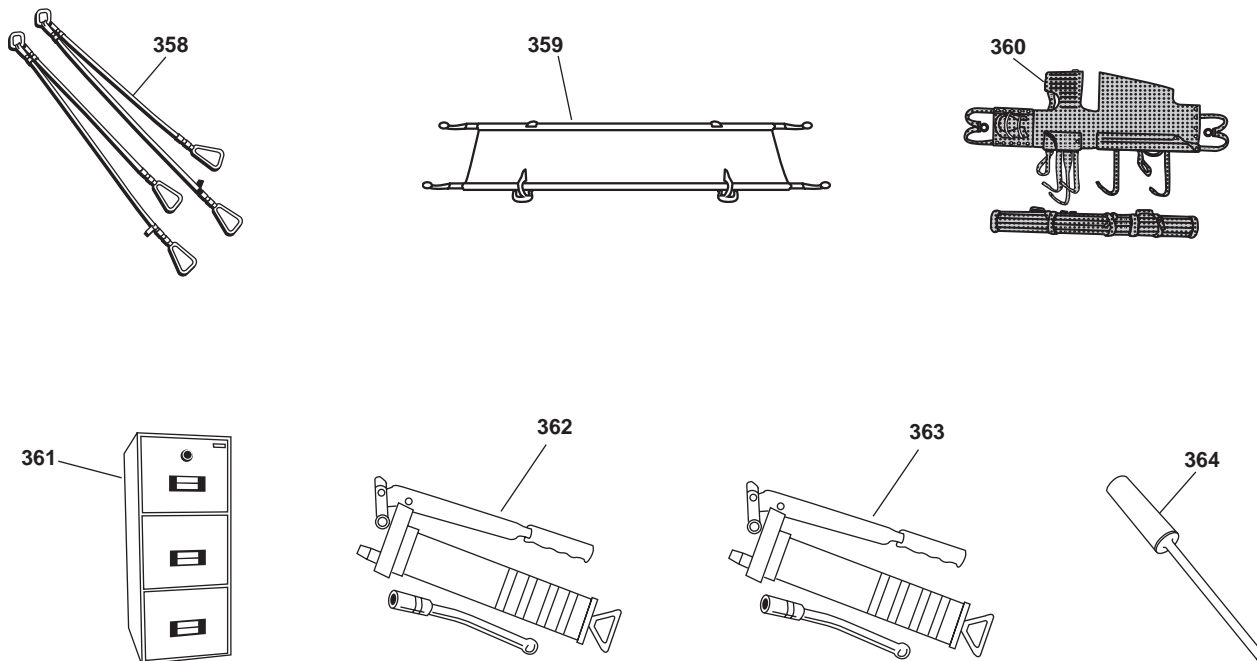


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
358	1680-01-226-5300	LITTER, SLING, RESCUE, HELO (DC Locker) (64249) 190	128	EA	2
359	6530-01-380-7309	LITTER, FOLDING, RIGID POLE (DC Locker) (4A777) 6530013807309	128	EA	1
360	6530-00-783-7600	LITTER, SEMIRIGID, POLELESS (Vestibule) (81349) MILL16815	128	EA	1
361	2090-00-243-2362	LOCKER, SAFE, NO. 7 (Bosuns Store Room) (63538) S3209-860212 TYPE 7	128	EA	3
362	4930-00-223-3389	LUBRICATING GUN, HAND (Machine Shop) (0FKM1) 7584	128	EA	1
363	4930-00-253-2478	LUBRICATING GUN, HAND, 14 OZ (Tool Cage EOSA1) (1PL57) 1142	128	EA	3
364		MANDREL (Machine Shop) (70211) M-8	128	EA	1



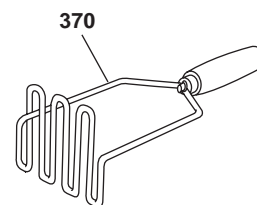
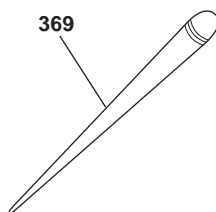
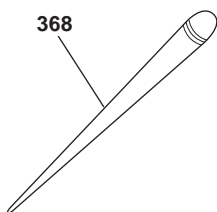
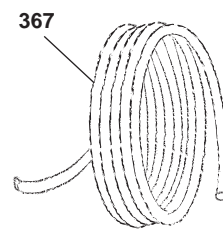
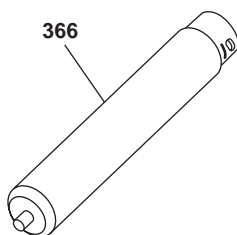
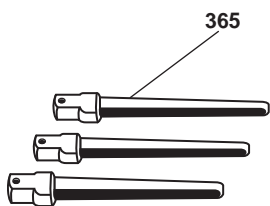


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
365	5120-00-691-1165	MANDREL SET, HAND (USED TO ASSEMBLE SWIVEL NUT FITTINGS TO HOSES) (Machine Shop D2) (01276) 1568	128	EA	1
366	1370-01-074-0591	MARKER, LOCATION MARINE MK 58 MODI BOBIE 1370-L580 (DC Locker) (10001) 3139741	128	EA	2
367	4020-00-240-2185	MARLINE, HEMP TYPE 4, CLASS 1, 20 LBS COIL (Bosun's Locker) (81348) T-R-650 TY 4 CL 1	128	CL	2
368	5120-00-221-2731	MARLINESPIKE, 8", WIRE ROPE TYPE, W/EYE, TYPE 1 (Machine Shop D9) (80244) 5120-00-221-2731	128	EA	2
369	5120-00-224-9443	MARLINSPIKE, 14", PLAIN, WIRE ROPE TYPE, W/EYE (Machine Shop D9) (80244) 5120-00-224-9443	128	EA	2
370	7330-00-205-3093	MASHER, POTATO, HAND (Galley) (80244) 7330-00-205-3093	128	EA	1

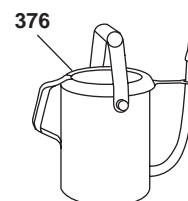
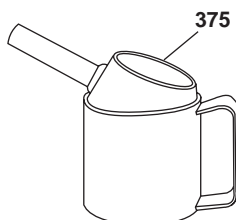
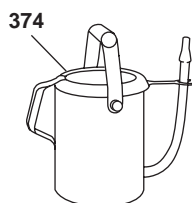
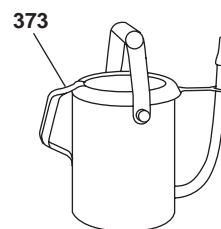
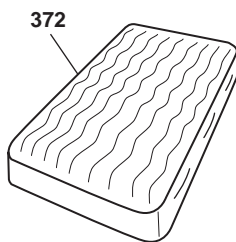
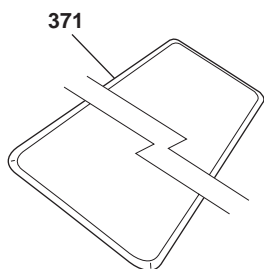


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
371	7220-00-267-4630	MATTING, FLOOR, SAFETY RUBBER OR VINYL, BLUE, NONSLIP (On Station) (81349) MIL-DTL-15562	128	RO	1
372	7210-01-244-9735	MATTRESS, BED (Linen Locker) (83421) 7210-01-244-9735	128	EA	22
373	7240-00-255-8113	MEASURE, LIQUID W/ FLEXIBLE SPOUT, 2 QT (Machine Shop CAB A) (1JZ80) 6110-007	128	EA	1
374	7240-00-233-6013	MEASURE, LIQUID, FLEXIBLE SPOUT, 1 QT (Machine Shop CAB A) (39428) 4340T1	128	EA	1
375	7240-00-233-6025	MEASURE, LIQUID, RIGID SPOUT, 4 QT (Machine Shop CAB A) (39428) 4340T45	128	EA	2
376	7240-00-255-5996	MEASURE, LIQUID, W/FLEXIBLE SPOUT, 8 QT (Galley) (1JZ80) 6110-002	128	EA	1

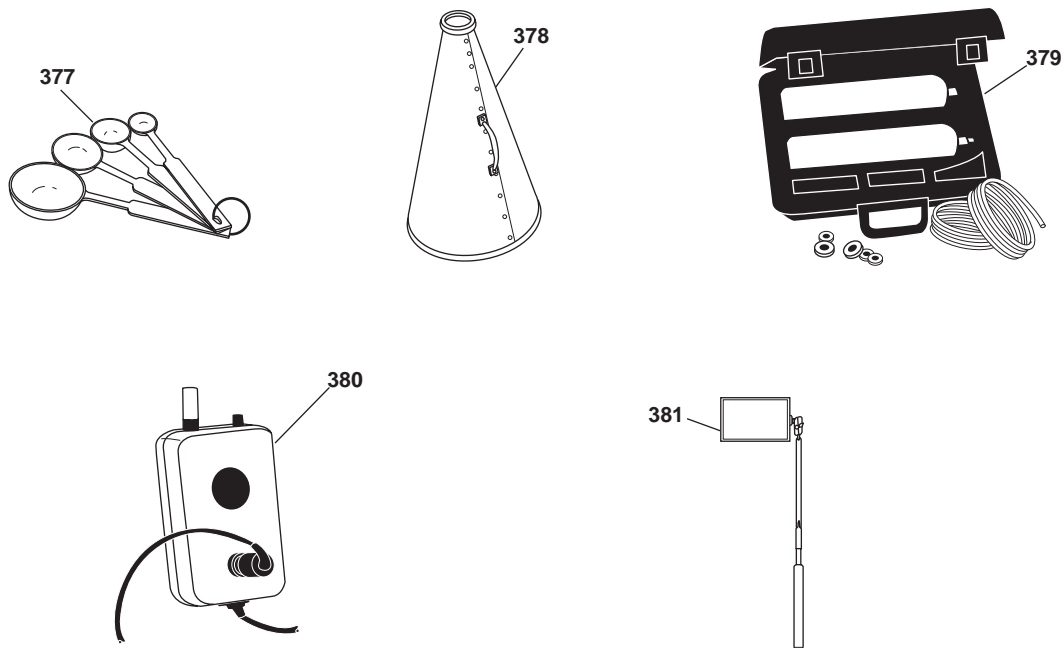


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
377	7330-00-272-7876	MEASURING SET, SPOON CRES (4 SPOONS) (Galley) (80244) 7330-00-272-7876	128	EA	2
378	8465-00-238-3344	MEGAPHONE, HAND, 18" (Pilothouse) (81349) MIL-M-1263	128	EA	1
379	4820-01-474-4705	METER CALIBRATION KIT, MODEL RP (DC Locker) (8F723) 467895	128	EA	2
380	6665-01-529-4849	METER, REMOTE ALARM (Bosun Store Room) (8F723) 800991	128	EA	1
381	5120-00-618-6902	MIRROR, INSPECTION, RECTANGULAR GLASS 1-3/4" X 2-5/8", 18: OVERALL LENGTH, PLUNGER ACTUATED ANGLE ADJUSTMENT, TYPE 1, CLASS 3, SIZE 2 (Machine Shop) (77335) 71-510	128	EA	3

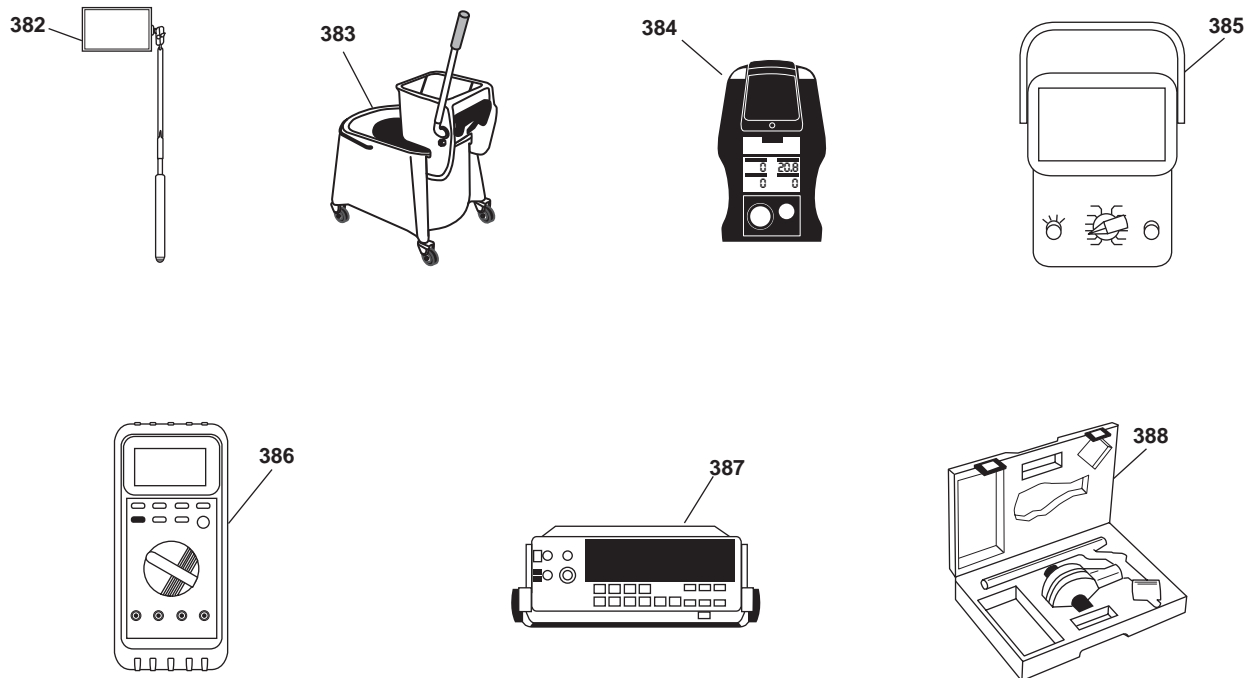


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
382	5120-00-278-9926	MIRROR, INSPECTION, RECTANGULAR GLASS 1-1/4" X 1-1/2" 11" OVERALL LENGTH, TYPE 2, CLASS 3 (Machine Shop D9) (77335) 71-520	128	EA	3
383	7920-00-579-8484	MOPPING OUTFIT, 16 QT (Cleaning Locker) (80244) 7920-00-579-8484	128	OT	3
384	6665-01-529-8483	DETECTOR, GAS (MSA ORION MULTIGAS) (DC Locker) (8F723) A-ORION-1-1-1-1-C-0-P-3-3-0- C-1-0-4-0	128	EA	2
385	6625-00-121-3140	MULTIMETER (DC Locker) (81349) MILM9983 TYPE1	128	EA	1
386	6625-01-329-0720	MULTIMETER (DC Locker) (89536) Fluke 85-3	128	EA	1
387	6625-01-265-6000	MULTIMETER, AN/PSM45A (DC Locker) (89536) 27 W/ACCE	128	EA	2
388	5180-00-935-4642	MULTIPLIER KIT, TORQUE WRENCH (Machine Shop) (72915) 9551713	128	EA	1

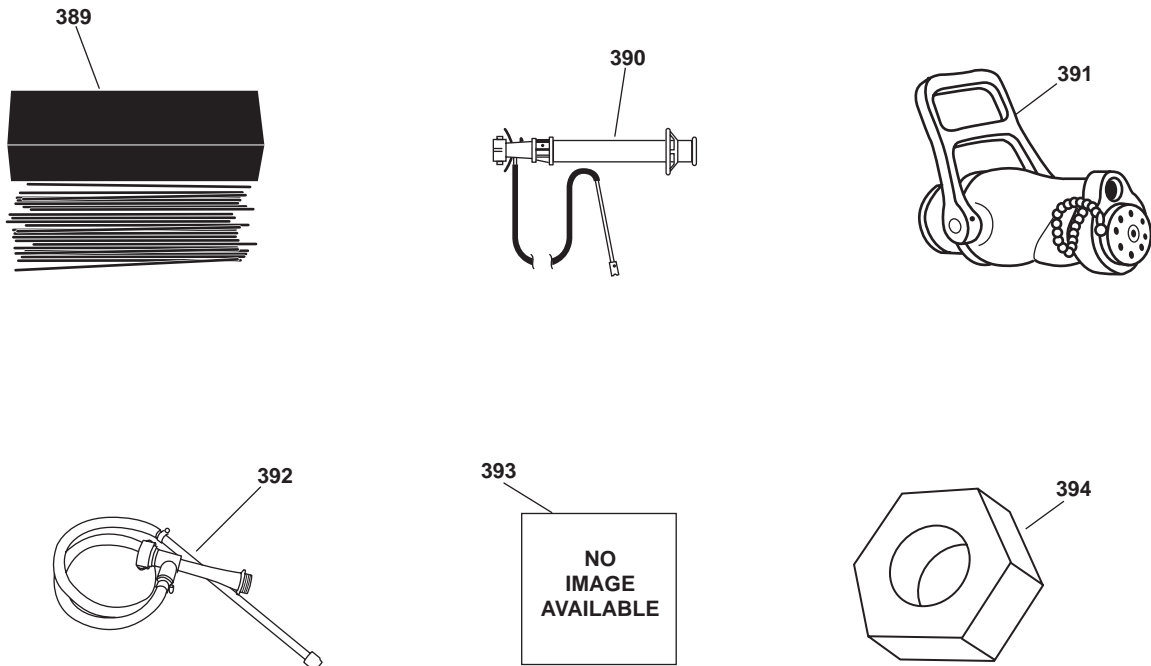


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
389	5130-01-083-5949	NEEDLE SET, FOR SCALER, NEEDLE TYPE (Machine Shop) (56632) 50303	128	EA	3
390	4210-00-225-6225	NOZZLE, FIRE HOSE, FOAM, 3 POSITION, 1-1/2 THREADED CONNECTION (DC Main Deck S5) (81349) MILN12279	128	EA	2
391	4210-00-392-2943	NOZZLE, FIREHOSE 1.5 (Fire Stations) (00912) 20690002	128	EA	11
392	4210-00-465-1906	NOZZLE, FIRE HOSE (DC Locker) (81349) M24408-T1-1	128	EA	3
393	5310-01-529-5866	INTENTIONALLY LEFT BLANK	128	EA	3
394		NUT, STEEL, HEX SHACKLE BOLT HEAVY DUTY, GALVANIZED 2.250-4 1/2 UNC-2A SPECIFICATION: ASTM A563 (Bosun's Locker) (75535) 1075437			

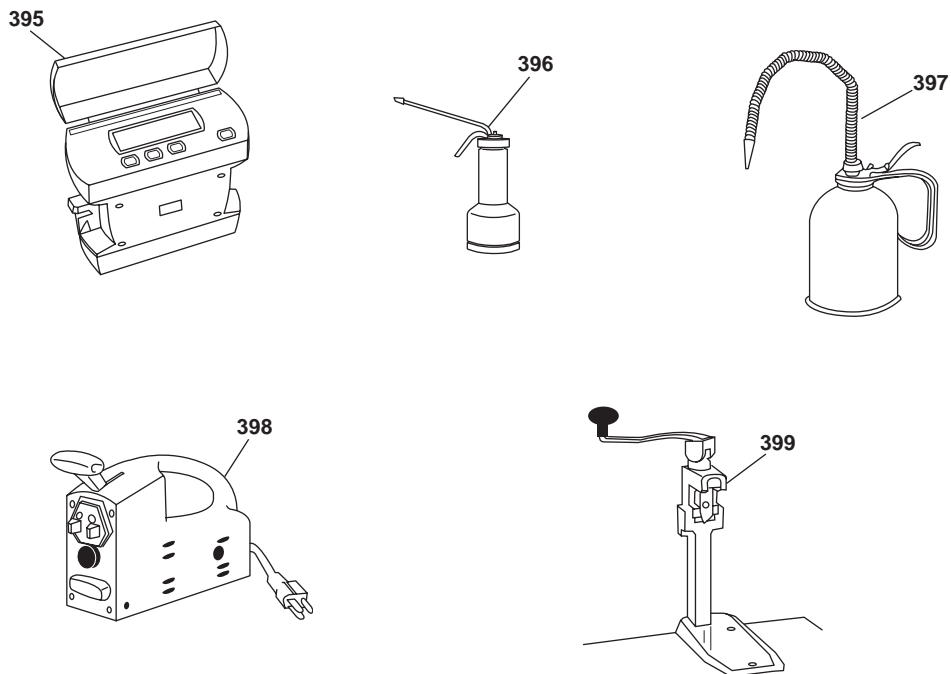


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
395	6625-01-223-2980	OHMMETER, 0-1000 MEG OHMS RESISTANCE (Fitted) (07239) 212159	128	EA	50
396	4930-00-266-9182	OILER, HAND, 8 OZ (Machine Shop D12) (72798) 14A	128	EA	1
397	4930-00-262-8868	OILER, HAND, FLEX SPOUT, 1 PT (Paint Locker Main Deck) (72798) 328	128	EA	1
398	7330-00-272-2590	OPENER, CAN, ELECTRIC PORTABLE (Galley) (83190) 201	128	EA	1
399	7330-00-205-3151	OPENER, CAN, MANUAL, TABLE MOUNTED, TYPE 3, GRADE A (Galley) (81390) 2	128	EA	1

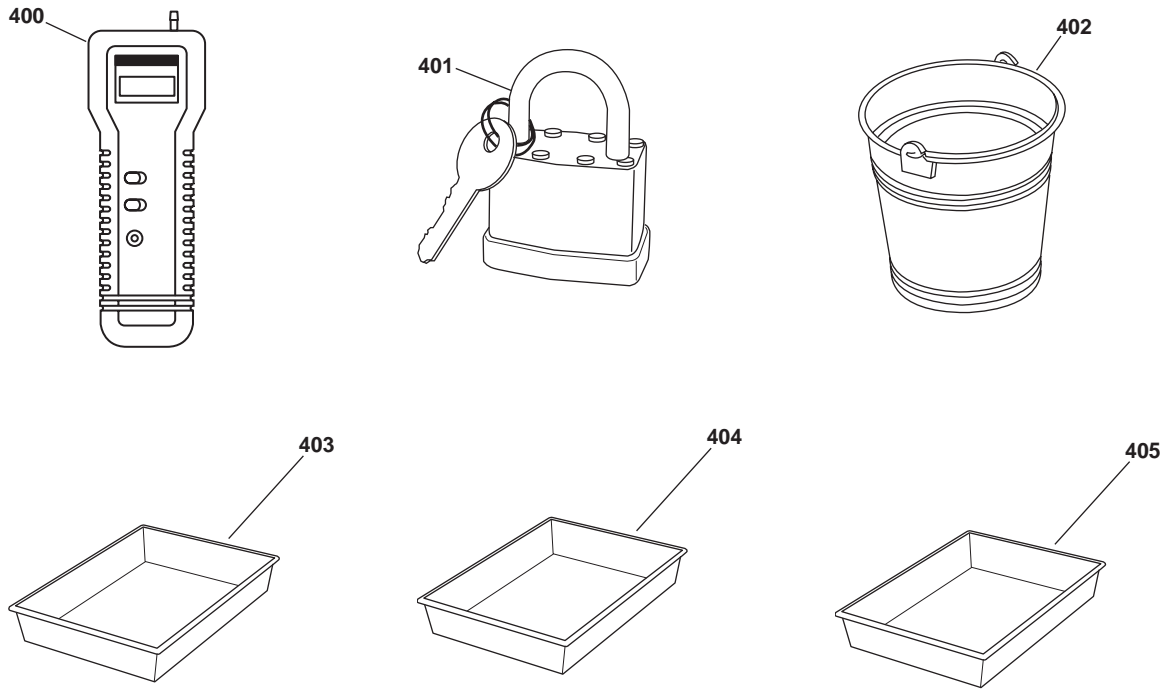


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
400	6665-01-038-3741	OXYGEN ALARM, GAS (DC Main Deck DF) (05083) 23-7245	128	EA	2
401	5340-00-582-2742	PADLOCK, KEYED (Machine Shop, AMS2) (96906) MS35647-2	128	EA	2
402	7240-00-160-0455	PAIL, UTILITY, METAL, HEAVY WEIGHT 3-1/2 GA (Fan Room Main Deck) (9C665) 514	128	EA	24
403	7330-00-205-3166	PAN, BAKING AND ROASTING 18" X 12" X 2-1/2" (Galley) (80244) 7330-00-205-3166	128	EA	2
404	7330-00-234-7401	PAN, BAKING AND ROASTING 24" X 12" X 3" (Galley) (81349) MIL-P-3852	128	EA	1
405	7330-00-286-8069	PAN, BAKING AND ROASTING 24 X 18 X 4-1/2" (Galley) (95027) C36793B	128	EA	1

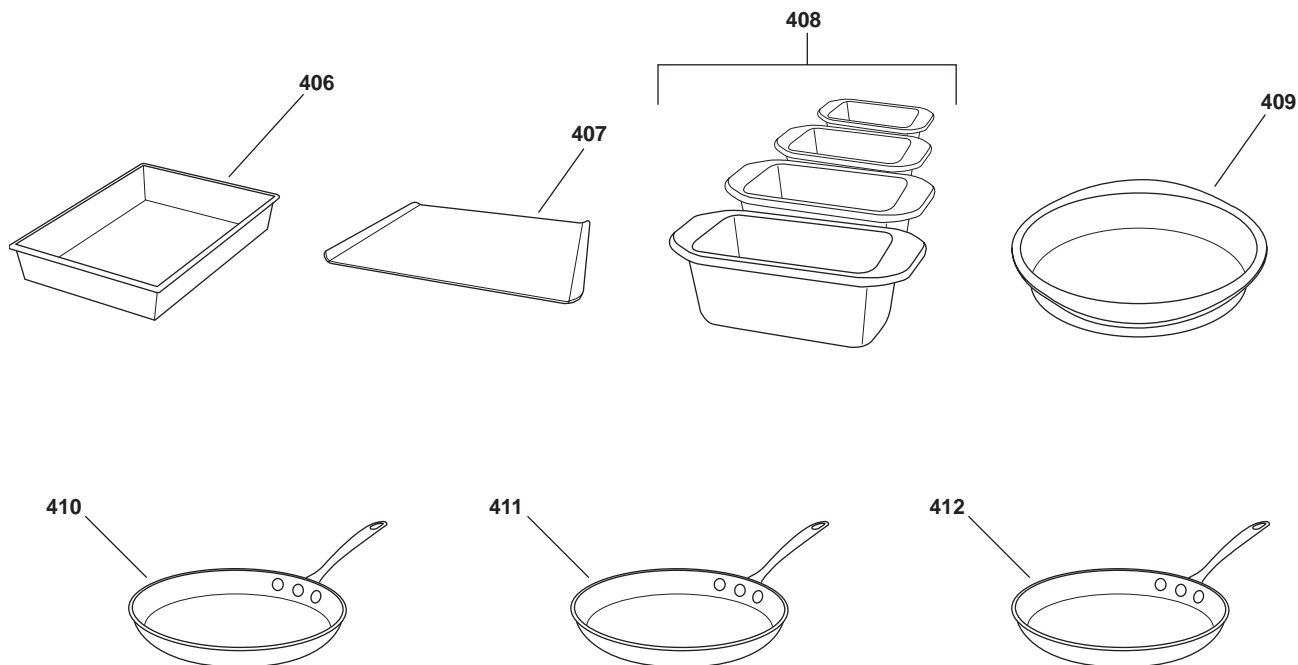


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
406	7330-00-205-3164	PAN, BAKING AND ROASTING, 13-1/4" X 9-1/4" X 2-1/4" (Galley) (80244) 7330-00-205-3164	128	EA	2
407	7330-00-633-8905	PAN, BAKING SHEET (Galley) (80244) 7330-00-633-8905	128	EA	1
408	7330-00-255-5995	PAN, BREAD, FOUR- PAN SET (Galley) (80244) 7330-00-255-5995	128	EA	2
409	7330-00-205-3150	PAN, CAKE, ROUND, 12 PER BOX, 9" X 1-1 1/2 DEEP (Galley) (80244) 7330-00-205-3150	128	SE	1
410	7330-00-238-3805	PAN, FRYING 12" DIA (Galley) (58536) A-A-423	128	BX	1
411	7330-01-278-8265	PAN, FRYING 6" DIA (Galley) (80244) 7330-01-278-8265	128	EA	2
412	7330-00-954-6015	PAN, FRYING 8" DIA W/O COVER CAST IRON (Galley) (70866) AP4150	128	EA	2



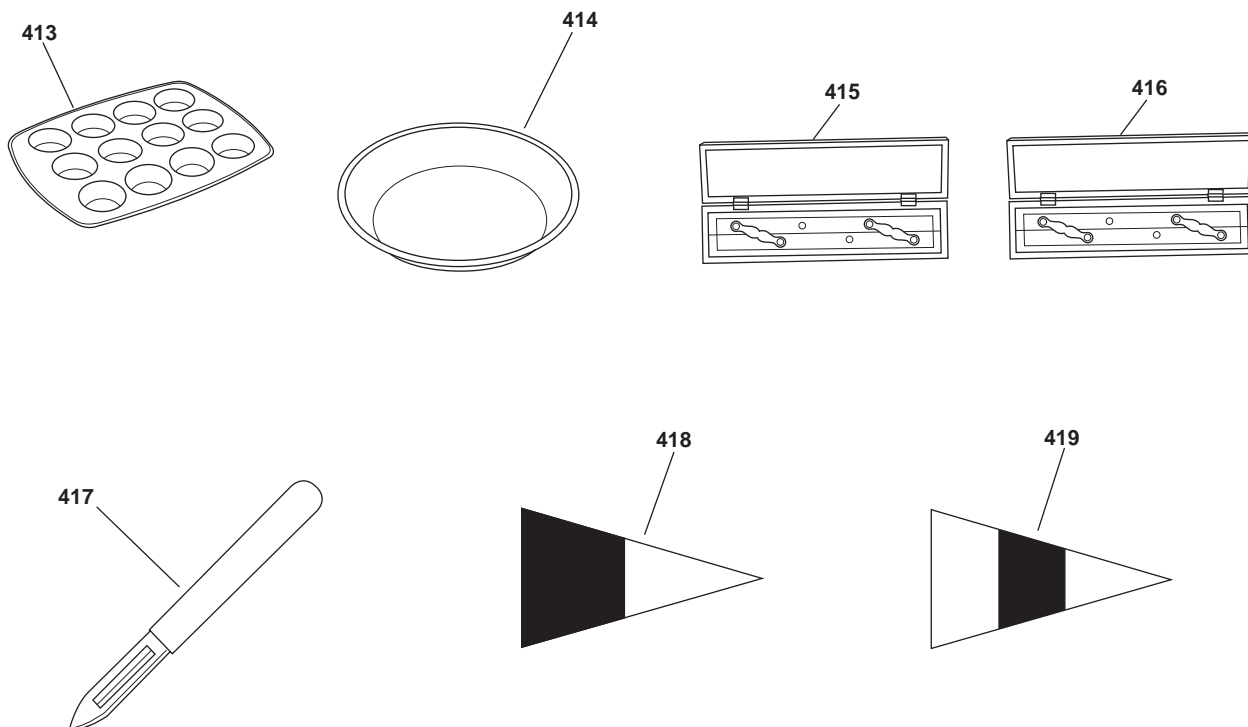


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
413	7330-00-244-4549	PAN, MUFFIN, 12 CUP ALUMINIUM, HEAVY DUTY (Galley) (80244) 7330-00-244-4549	128	EA	2
414	7330-00-823-6883	PAN, PIE, ALUMINIUM 9" STYLE A (Galley) (80244) 7330-00-823-6883	128	EA	2
415	6675-00-191-1507	PARALLEL RULER (Pilothouse) (58536) A-A-50212A	128	DZ	1
416	6675-00-191-1509	PARALLEL RULER (Pilothouse) (81348) GG-P-118	128	EA	1
417	7330-00-238-8316	PEELER, POTATO, HAND (Galley) (85812) W8079	128	EA	1
418	8345-00-935-0538	PENNANT, SIGNAL, ANSWER 2ND REPEATER INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0538	128	DZ	1
419	8345-00-935-0504	PENNANT, SIGNAL, "0" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0504	128	EA	1

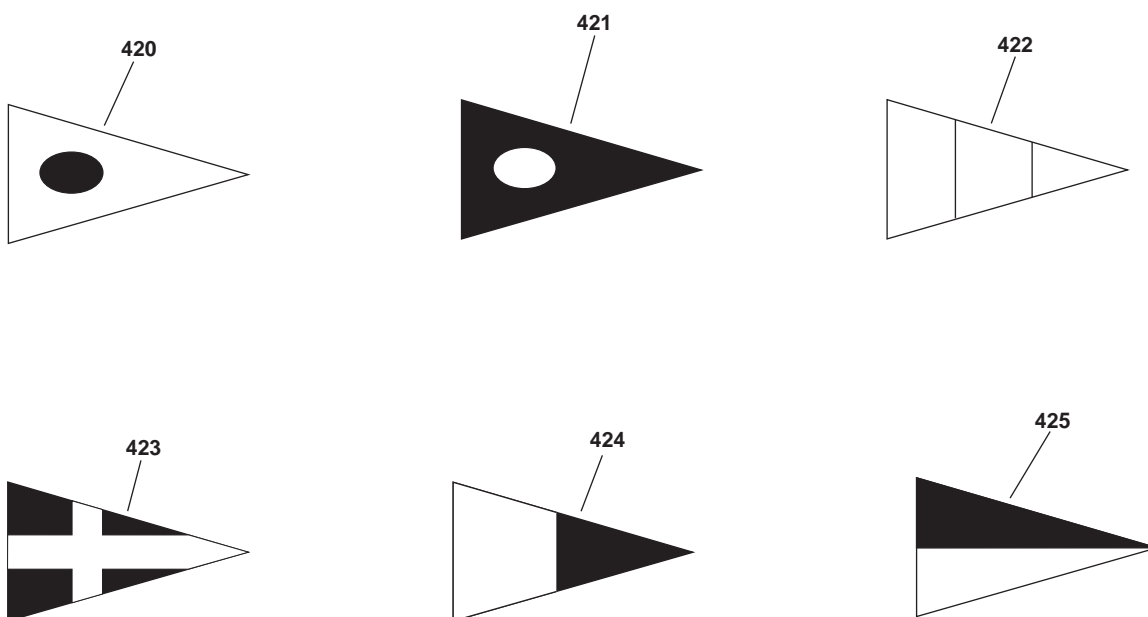
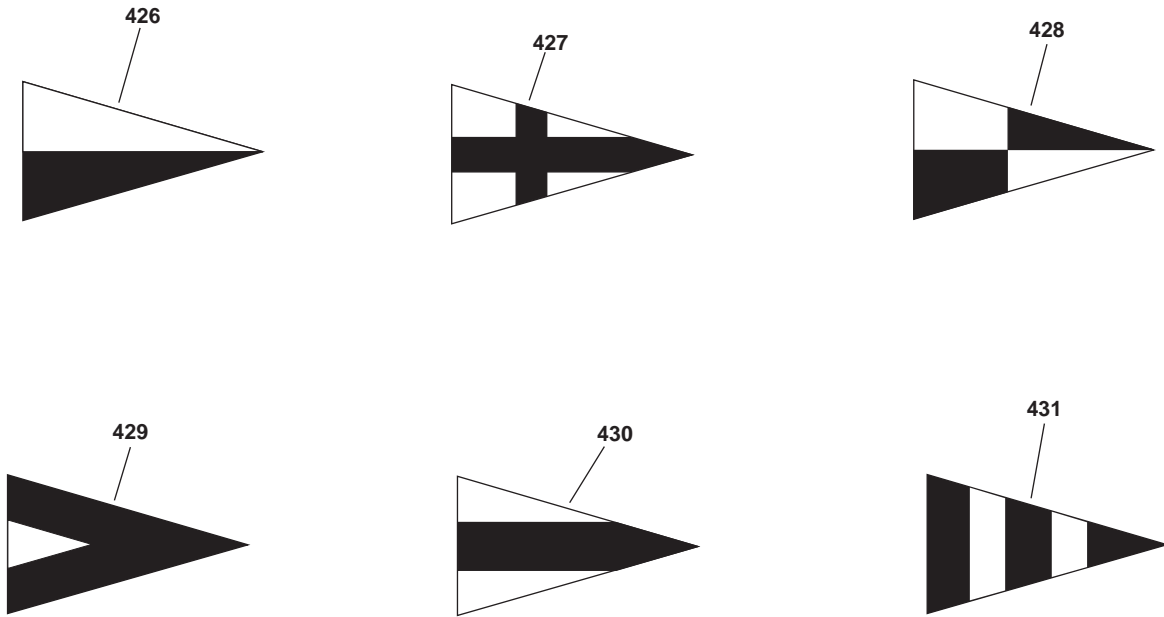


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
420	8345-00-935-0496	PENNANT, SIGNAL, "1" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0496	128	EA	1
421	8345-00-926-6022	PENNANT, SIGNAL, "2" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-926-6022	128	EA	1
422	8345-00-935-0497	PENNANT, SIGNAL, "3" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0497	128	EA	1
423	8345-00-935-0498	PENNANT, SIGNAL, "4" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0498	128	EA	1
424	8345-00-935-0499	PENNANT, SIGNAL, "5" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0499	128	EA	1
425	8345-00-935-0500	PENNANT, SIGNAL, "6" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0500	128	EA	1



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
426	8345-00-935-0501	PENNANT, SIGNAL, "7" INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0501	128	EA	1
427	8345-00-935-0502	PENNANT, SIGNAL, "8" NUMERIC INTN'L CODE, SIZE 8 (Pilothouse) (81349) 8345-00-935-0502	128	EA	1
428	8345-00-935-0503	PENNANT, SIGNAL, "9" INTN'L CODE SIZE 8 (Pilothouse) (83421) 8345-00-935-0503	128	EA	1
429	8345-00-935-0537	PENNANT, SIGNAL, ANSWER 1ST REPEATER INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0537	128	EA	1
430	8345-00-935-0540	PENNANT, SIGNAL, ANSWER 3RD REPEATER INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0540	128	EA	1
431	8345-00-935-0534	PENNANT, SIGNAL, ANSWER INTN'L CODE, SIZE 8 (Pilothouse) (83421) 8345-00-935-0534	128	EA	1

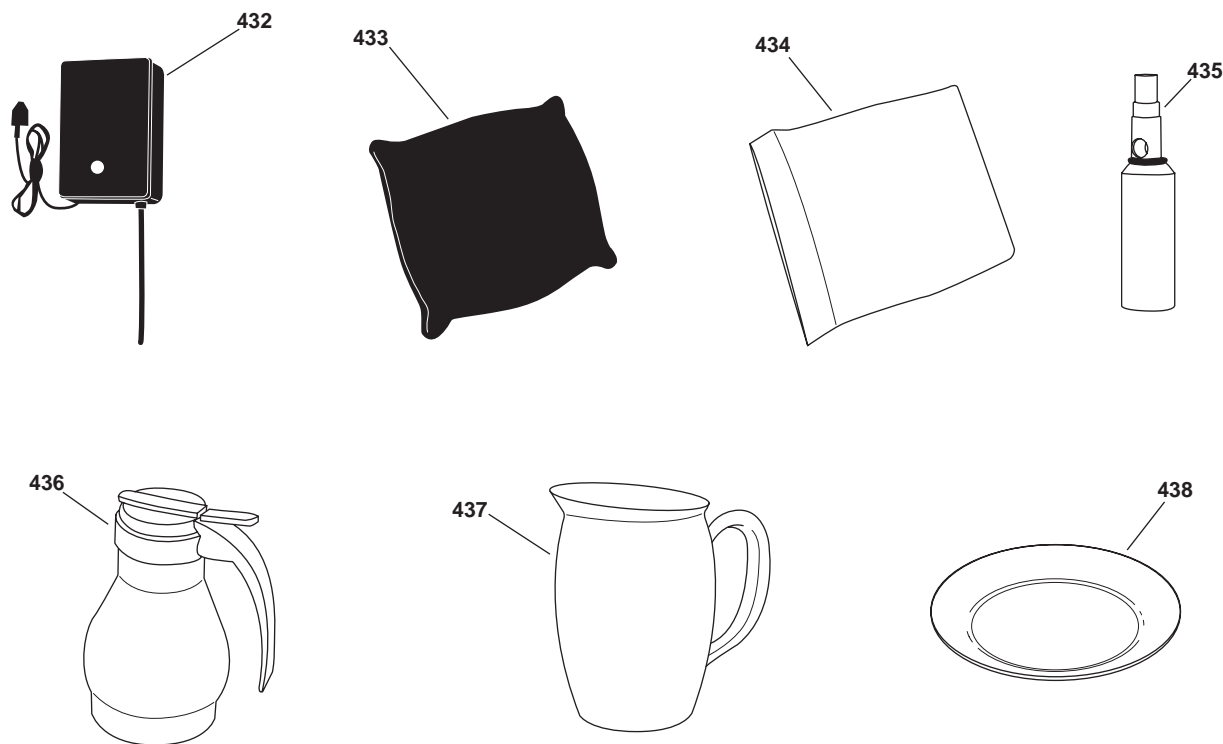


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
432	5980-01-134-2068	PHOTO-CELL (FOR NAVIGATION LIGHT TOWING) (Bosun's Locker) (28763) 9001 0317	128	EA	1
433	7210-00-205-3205	PILLOW, BED, TYPE 1, SIZE 3 (Fitted) ( 83421) 7210-00-205-3205	128	EA	2
434	7210-00-231-2373	PILLOWCASE (Linen Locker) (83421) 7210-00-231-2373	128	EA	25
435	4820-00-596-3712	PISTON, VALVE (Machine Shop D8) (53214) 1010	128	EA	50
436	7350-00-195-4763	PITCHER, SYRUP, GLASS, 14 OZ BODY CHROME TOP (Galley) (80244) 7350-00-195-4763	128	EA	1
437	7350-00-249-5165	PITCHER, WATER, 2 QT STAINLESS STEEL (Galley) (80244) 7350-00-249-5165	128	EA	4
438	7350-01-256-1087	PLATE, EATING (Galley) (80244) 7350-01-256-1087	128	EA	4

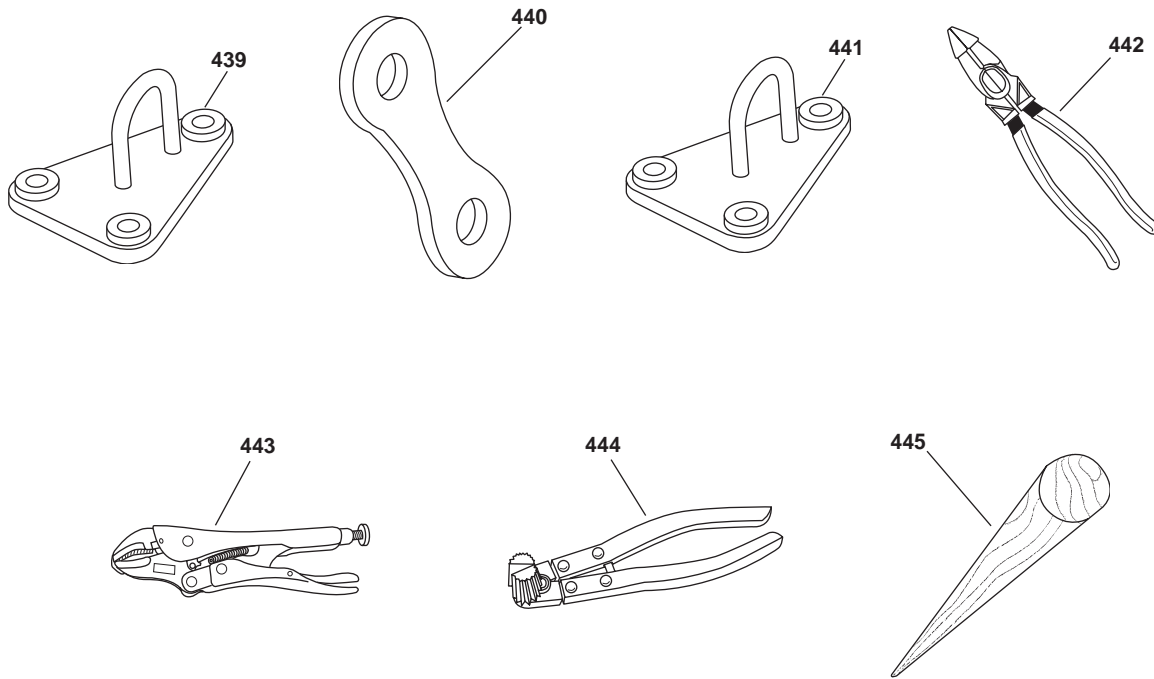


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
439	5120-01-275-2152	PLATE, PROPELLER (Towing Gear Locker) (32862) SK-0050	128	BX	2
440	2040-01-151-1683	PLATE, SHACKLE PER US ARMY DWG (Fitted) (97403) 13226E2127	128	EA	1
441	2040-01-151-1686	PLATE, FLOUNDER (Towing Gear Locker) (97403) 13226E2131	128	EA	19
442	5120-00-239-8251	PLIERS (Machine Shop D1) (75347) 201	128	EA	3
443	5120-01-530-8719	PLIERS, LOCKING, HOLDING CLAMP, 11" (Machine Shop D3) (39428) 5105A19	128	EA	2
444	5120-00-943-9929	PLIERS, BATTERY (Machine Shop D8) (70786) 20	128	EA	2
445	5510-00-260-8953	PLUG, WOOD, SOFT (1") (Bow Thruster Port Floor) (80064) 5510-00-260-8953	128	EA	1

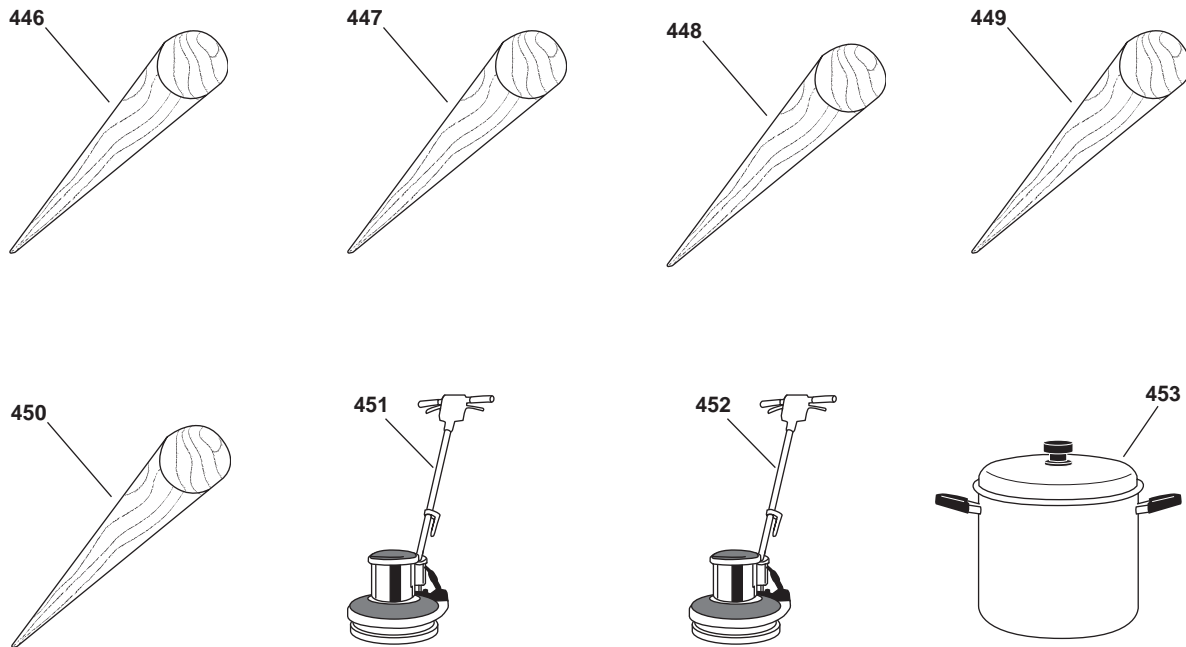


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
446	5510-00-260-8949	PLUG, WOOD, SOFT 10" X 12" (Towing Gear Locker) (80064) 5510-00-260-8949	128	EA	20
447	5510-00-260-8962	PLUG, WOOD, SOFT, 3" X 0" X 8" (DC Main Deck S14) (80064) 5510-00-260-8962	128	EA	20
448	5510-00-260-8966	PLUG, WOOD, SOFT, 5" X 3" X 10" (DC Main Deck S14) (80064) 5510-00-260-8966	128	EA	20
449	5510-00-260-8969	PLUG, WOOD, SOFT, 7" X 3" X 10" (DC Main Deck S14) (80064) 5510-00-260-8969	128	EA	20
450	5510-00-260-8973	PLUG, WOOD, SOFT, 8" X 4" 10" (DC Main Deck S14) (80064) 5510-00-260-8973	128	EA	20
451	7910-00-224-7985	POLISHER, FLOOR, ELECTRICAL W/5 BRUSHES (Cleaning Locker) (58536) A-A-50478	128	EA	10
452	7910-00-680-8296	POLISHER, FLOOR, ELECTRICAL (Cleaning Locker) (58536) A-A-50478	128	EA	1
453	7330-00-205-4146	POT, COOKING, W/COVER, 14 QT (Galley) (80244) 7330-00-205-4146	128	EA	1

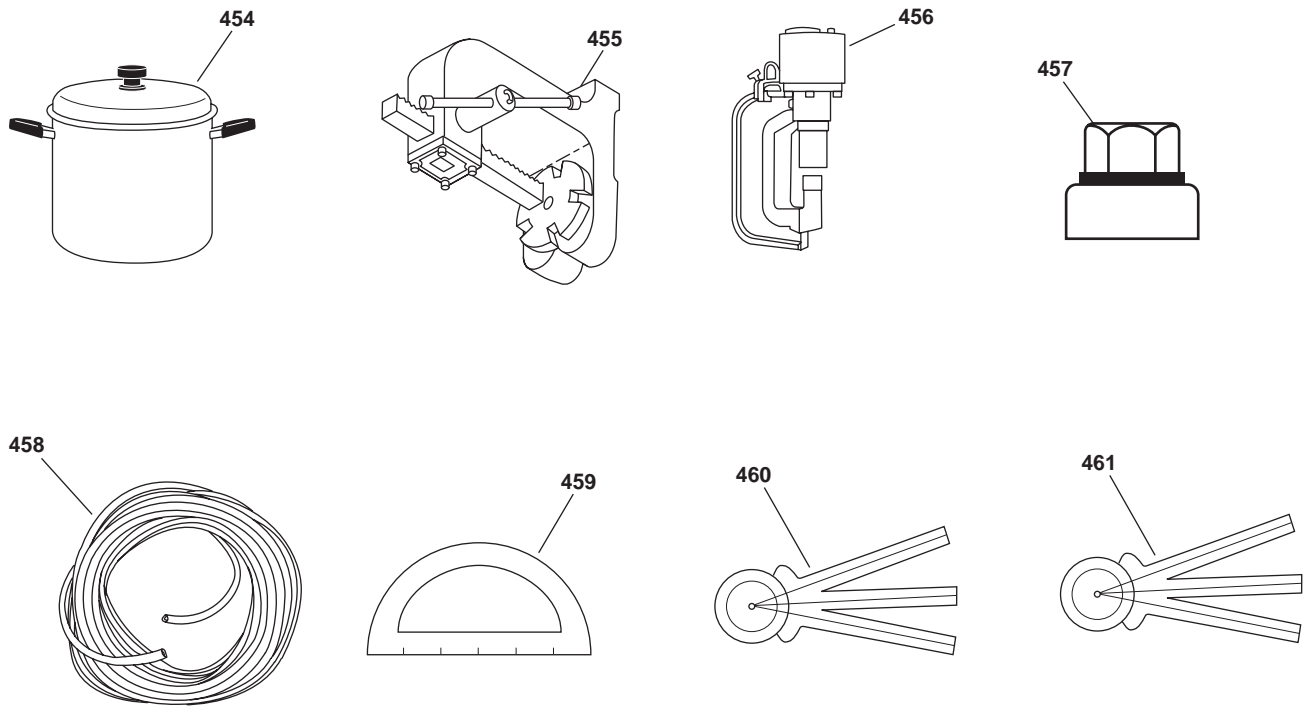


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
454	7330-00-775-3941	POT, COOKING, W/COVER, 9 QT (Galley) (80244) 7330-00-775-3941	128	EA	2
455	3444-00-223-8359	PRESS, ARBOR (Machine Shop) (15746) 02001	128	EA	2
456	4940-00-360-2752	PRESS, HYDRAULIC, PORTABLE (Machine Shop) (07505) S71	128	EA	1
457	5120-01-348-6742	PRESSURE PIECE (Towing Gear Locker) (80871) 2125-9806-000	128	EA	1
458	6665-01-529-5823	PROBE TUBE (DC Locker) (8F723) 800333	128	EA	1
459	6675-00-183-6485	PROTRACTOR, SEMI-CIRCULAR 6" (Pilothouse) (81348) GGP681	128	EA	2
460	6675-00-191-1514	PROTRACTOR, THREE ARM (Pilothouse) (58536) A-A-59478 TY II CL 1	128	EA	2
461	6675-00-191-1516	PROTRACTOR, THREE ARM (Pilothouse) (58536) A-A-59478 TY I CL 2	128	EA	1

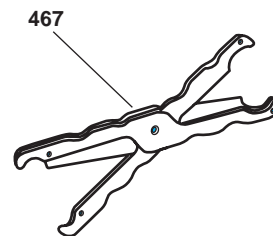
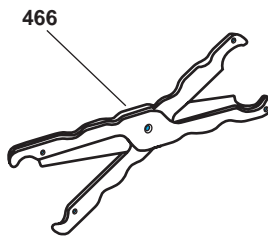
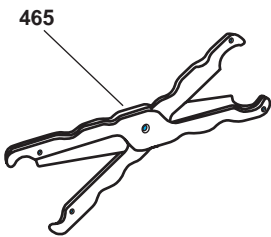
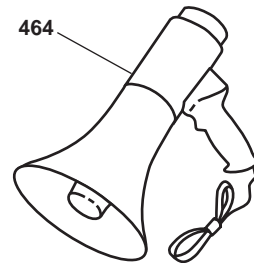
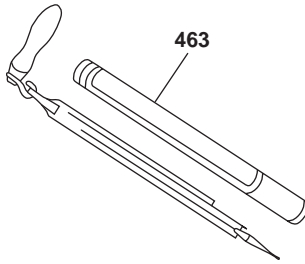
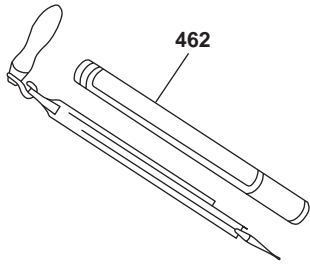


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
462	6685-00-255-9977	PSYCHROMETER (Pilothouse) (59310) 5522	128	EA	2
463	6685-00-826-1662	PSYCHROMETER, TYPE 5 (Pilothouse) (48620) U430	128	EA	2
464	5830-01-412-2012	PUBLIC ADDRESS SET (DC Locker) (32677) AN/PIQ-5B	128	EA	1
465	5120-00-243-2776	PULLER, FUSE, 1" AND 2-1/2" DIA., TYPE 1, SIZE 3 (Machine Shop D1) (81348) W-P-796	128	EA	2
466	5120-00-224-9453	PULLER, FUSE, 1/4" AND 1/2" DIA., TYPE 1, SIZE 1 (DC Main Deck S6) (30119) 34-001	128	EA	3
467	5120-00-224-9456	PULLER, FUSE, 1/2" AND 1-1/4" DIA., TYPE 1, SIZE 2 (Machine Shop, AMS2) (39428) 7074K1	128	EA-	3



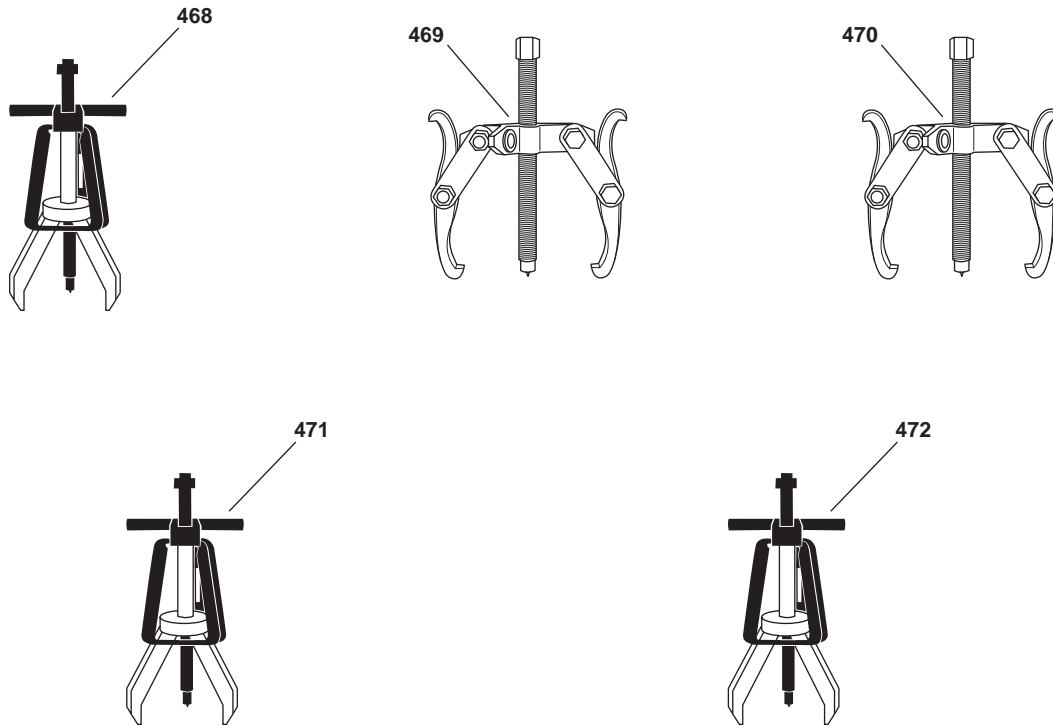


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
468	5120-00-595-9304	PULLER, MECHANICAL DOUBLE- END GRIP TWO JAW, EXTERNAL, 6" SPREAD, 3-REACH (Machine Shop) (45225) 1024	128	EA	3
469	5120-01-349-2706	PULLER, MECHANICAL (Machine Shop) (51729) 812-977-001	128	EA	1
470	5120-00-288-7710	PULLER, MECHANICAL (Machine Shop D8) (81348) GGG-P-781	128	EA	1
471	5120-00-215-1880	PULLER, MECHANICAL, GEAR AND BEARING, 21-3/4" REACH, 9" SPREAD, SINGLE END GRIP, TWO JAW, EXTERNAL (DC Main Deck S6) (45225) 1005	128	EA	1
472	5120-00-288-7711	PULLER, MECHANICAL, SINGLE END GRIP, TWO JAW, EXTERNAL, 0" TO 12" SPREAD, 10-5/8 REACH (Machine Shop Cab C) (81348) GGG-P-781 TY1CL1STASZ5	128	EA	1

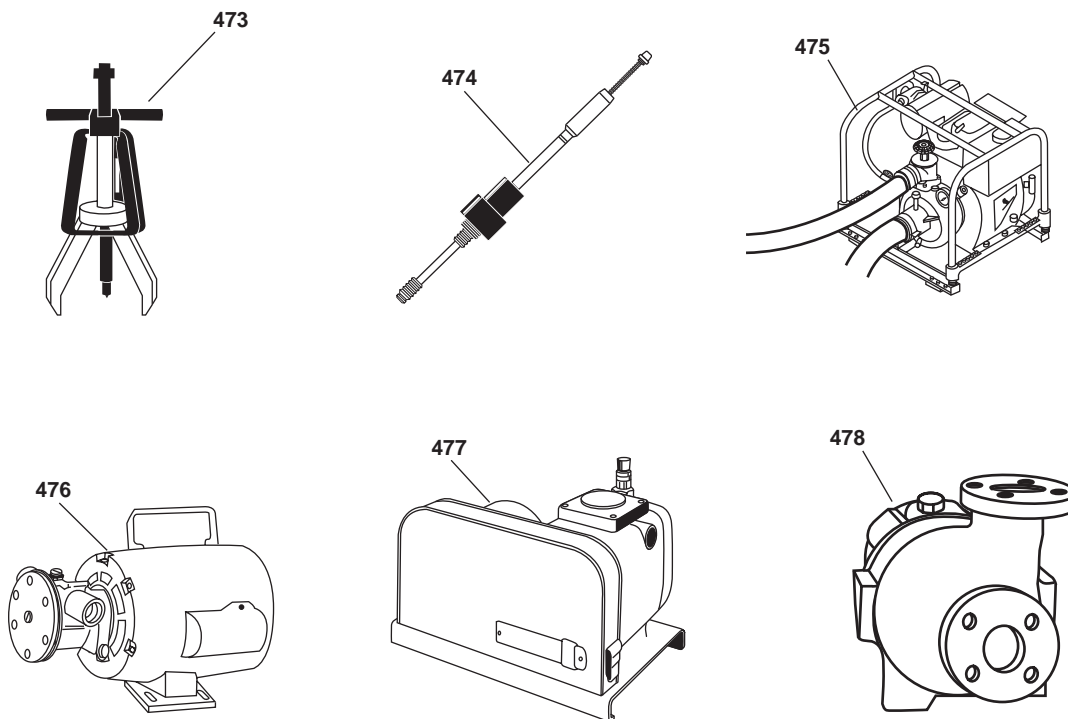


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
473	5120-00-595-9305	PULLER, MECHANICAL, DOUBLE- END GRIP TWO JAW, EXTERNAL, 8" SPREAD, STYLE B, SIZE 2 (Machine Shop) (81348) GGG-P-781 TY1CL1STBSZ2	128	EA	1
474	3456-01-354-5996	PULLER, TUBE (Machine Shop, AMS2) (70211) JSP-750-14	128	EA	1
475	4320-01-387-2869	PUMP UNIT, CENTRIFUGAL (P-100) (Fan Room, Port Side, Main and 01 Deck) (15852) 2BE10YDN	128	EA	1
476	4320-00-986-7312	PUMP UNIT, CENTRIFUGAL (Fan Room) (31425) 11810-0003	128	EA	2
477	4310-00-289-5967	PUMP UNIT, VACUUM, RTRY, 115V AC, 13 CFM (TO PULL VACUUM ON AIR CONDITIONING & REFRIGERATION SYSTEMS) (Machine Shop) (24123) 1550-V138K-G34AX	128	EA	1
478	4320-00-368-3186	PUMP UNIT, CENTRIFUGAL (DC Locker) (83590) 576139	128	EA	1

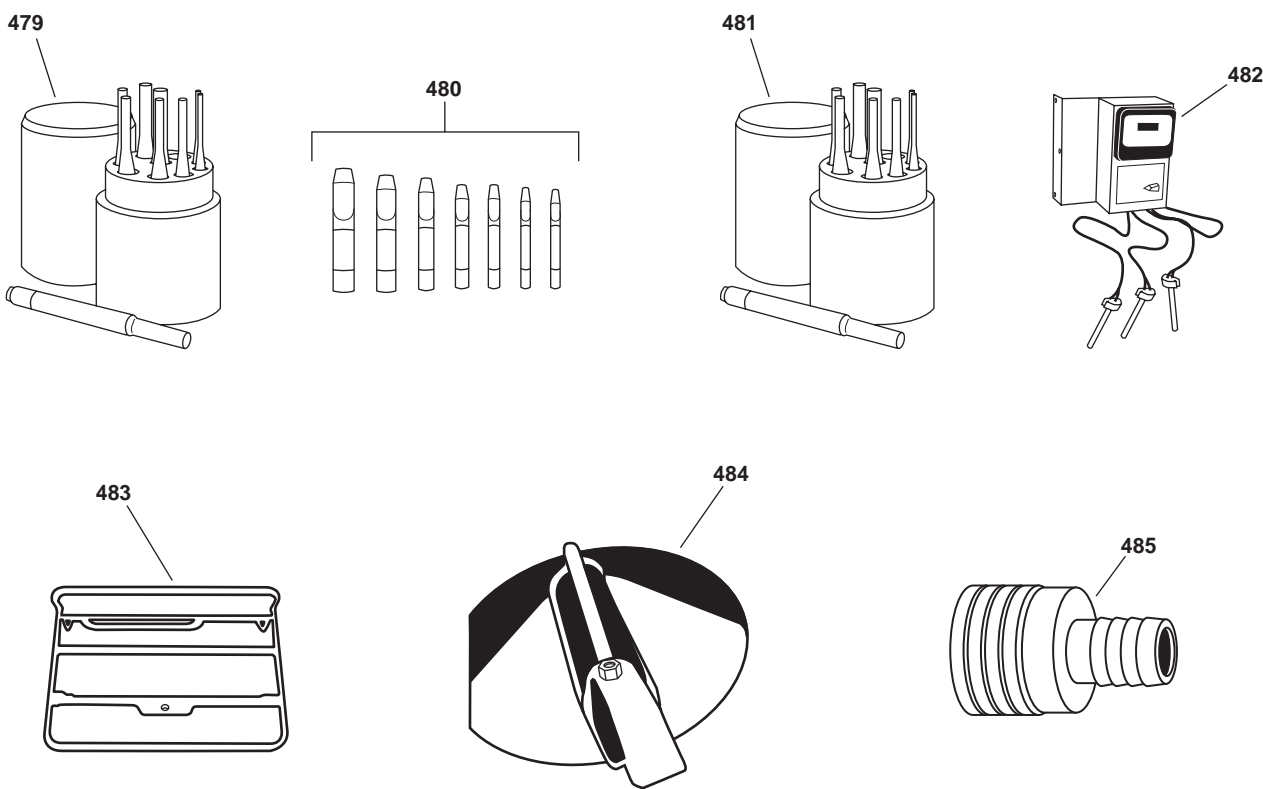


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
479	5120-01-335-1457	PUNCH, DRIFT PIN, 1/2 IN X 18 IN STEEL (Machine Shop, AMS2) (55719) 1816A	128	EA	2
480	5110-00-449-7313	PUNCH SET, CUTTING, DOUBLE BOW (Machine Shop) (95021) P79-GS	128	EA	2
481	5120-00-883-3003	PUNCH SET, DRIVE, PIN, SET OF 9, SIZES 1-9, TYPE 8, CLASS A, STYLE 1 (Tool Cage EOS B3) (63704) 2136	128	SE	1
482	6685-01-122-1292	PYROMETER GROUP (Arms Room) (11083) 6V7070-6V3073-8T485- 6V9129-8T45-	128	SE	1
483	2040-01-137-2019	RACK, STOWAGE, ONE HOLE (Fitted, Staterooms) (53711) 515-SK8126	128	EA	1
484	2040-00-288-2866	RATGUARD, SHIP (Bosun's Locker) (81349) MILG2767	128	EA	27
485	4210-01-081-0419	REDUCER, HOSE (Bosuns Store Room S20) (04024) 5100-107	128	EA	6

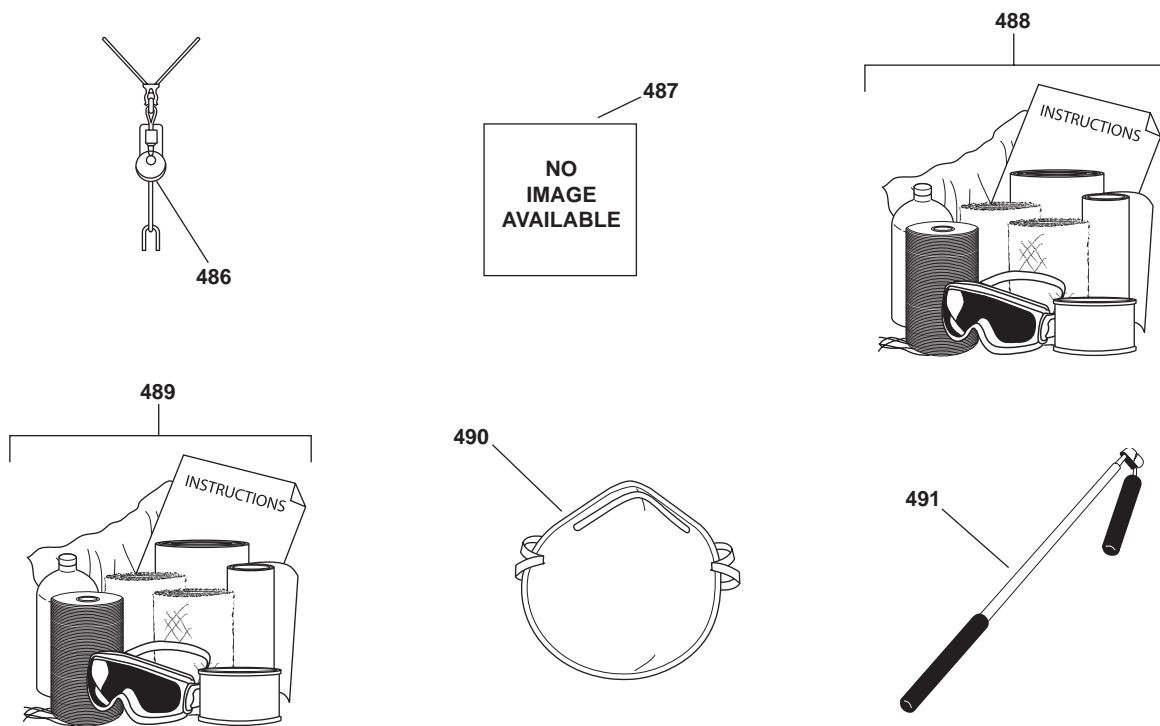


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
486	4220-01-279-7287	RELEASE, HYDROSTATIC UNIT (Fitted to Life Rafts) (53711) 803-5959322 ASSY 99	128	EA	2
487	5935-01-529-4764	REMOTE ALARM CABLE (DC Locker) (8F723) 812706	128	EA	2
488	4730-01-414-6976	REPAIR KIT, PIPE, EMERGENCY DAMAGE CONTROL (DC Locker) (3KFC1) BV-USA-2	128	EA	1
489	4730-00-542-3362	REPAIR KIT, PIPE, EMERGENCY DAMAGE CONTROL (DC Locker) (81349) MILR17882 ASSEMBLY 2	128	KT	6
490	4240-00-868-0203	RESPIRATOR (Machine Shop, AMS2) (56434) 122115S	128	KT	6
491	5120-00-850-6313	RETRIEVING TOOL, MAGNETIC, FLEXIBLE, INSULATED, 33" LONG, TYPE 2, CLASS 2, STYLE B (Machine Shop Cab C) (6W474) 21A17	128	EA	3

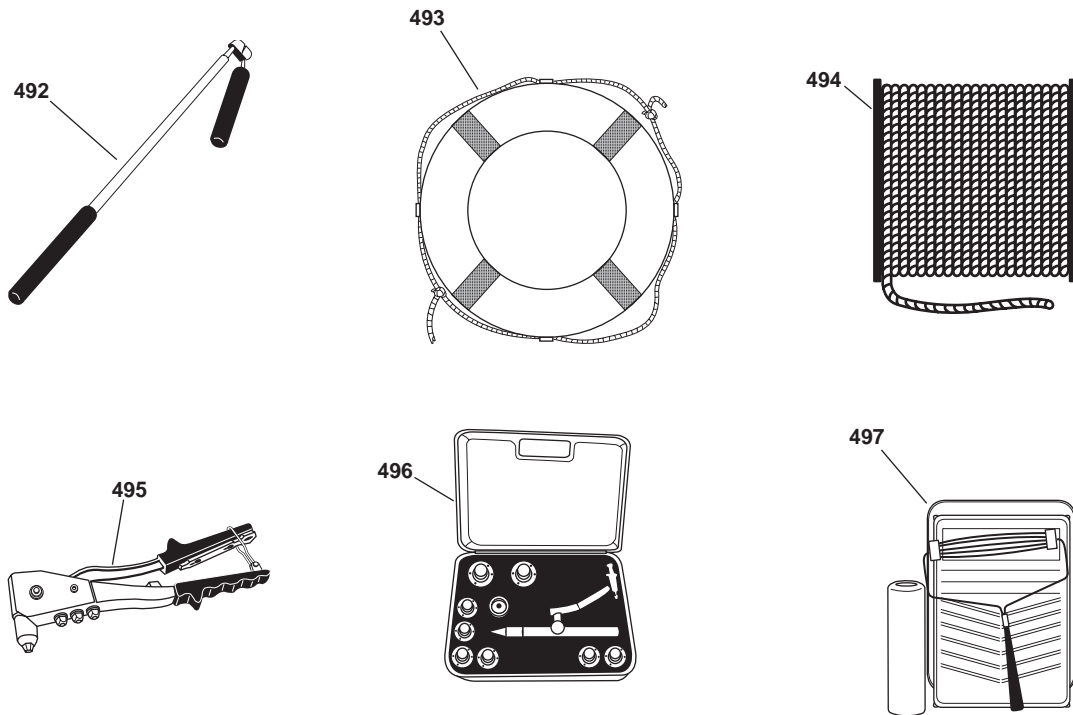


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
492	5120-00-545-4268	RETRIEVING TOOL, MAGNETIC, TELESCOPE, 26" TO 27-1/2" MAX LG. TYPE 2, CLASS 1 (Machine Shop) (6W474) 21A12	128	EA	1
493	4220-00-275-3157	RING BUOY, LIFESAVING 30 IN. OD (Life Jacket Locker) (81340) SUBPART 160.050-30IN.	128	EA	1
494	4020-00-530-0698	RING, RETRIEVING LINE, 1 IN. CIRCLE, ORANGE POLYPROPYLENE (Bosun's Locker) (81349) MILR24049	128	EA	8
495	5120-01-289-4310	RIVETER, BLIND, HAND (Machine Shop) (10054) HP-2	128	RL	1
496	3456-01-369-4713	ROLL, ROLLER TUBE EXPANDER (Machine Shop) (70211) R-10	128	EA	1
497	8020-00-689-5379	ROLLER KIT, PAINT, 9" C/O: ROLLER, COVER, TRAY AND EXTENSIONS (Paint Locker) (58536) A-A-2851	128	EA	1

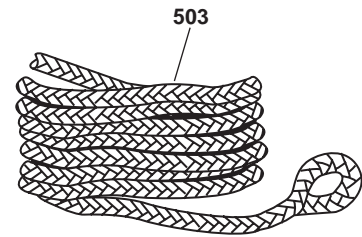
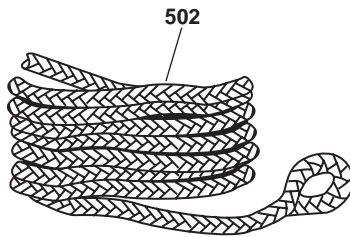
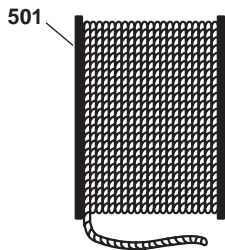
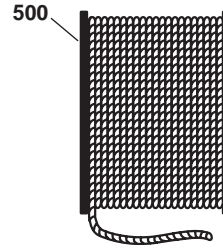
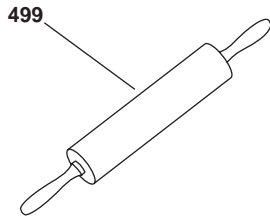
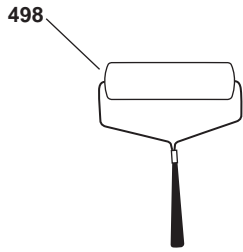


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
498	8020-00-753-4915	ROLLER, PAINT 9 INCH, DYNEL (Paint Locker) (58536) A-A-2851	128	KT	4
499	7330-00-153-9749	ROLLING PIN (Galley) (80244) 7330-00-153-9749	128	EA	8
500	4020-00-289-8616	ROPE, FIBEROUS (Bosun's Locker) (81348) T-R-605	128	EA	1
501	4020-00-710-2074	ROPE, FIBEROUS (Bosun's Locker)	128	CL	1
502	4020-00-519-7960	Lanyard, Distress Marker, 1/4" Dia. ROPE, FIBROUS, NYLON, 10 CIRC (Bosun's Locker) (81349) MIL-DTL-24050E	128	CL	1
503	4020-00-106-9411	ROPE, FIBROUS, NYLON, 6" CIRC (Bosun's Locker) (81349) MILR24050-6INN0MCIRCM	128	RL	1

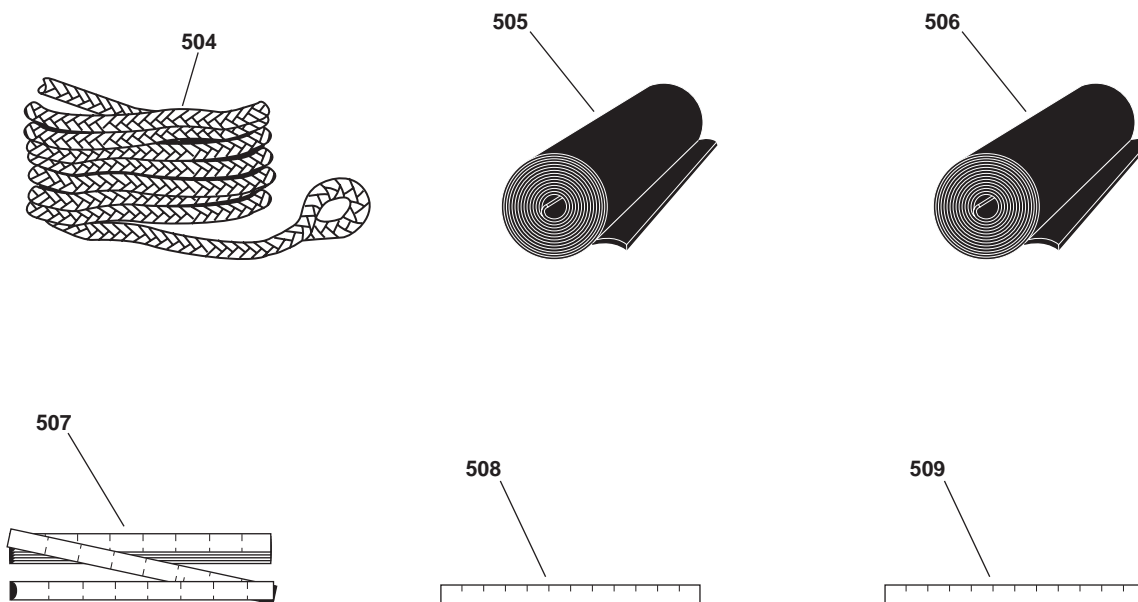


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
504	4020-01-025-5179	ROPE, FIBROUS, NYLON, 8" CIRC (Bosun's Locker) (81349) MIL-R-24050 1200FT	128	RL	1
505	5330-00-729-5103	RUBBER SHEET, SOLID 1/8" TYPE 1, CLASS 1 (Machine Shop, AMS2) (58536) A-A-1719	128	RL	1
506	5330-00-641-3051	RUBBER SHEET, SOLID 1/16" TYPE 1, CLASS 1 (Machine Shop, AMS2) (10001) 33R600-4890	128	EA	1
507	5210-00-501-6280	RULE, MULTIPLE FOLD, STEEL, 6' EXTENDED (Machine Shop CAB C) (08871) 7072	128	EA	1
508	7510-00-161-6215	RULER, NONMETALLIC (DC Main Deck DB) (58536) A-A-355 (12")	128	EA	1
509	7510-00-161-6217	RULER, NONMETALLIC (DC Main Deck DB) (58536) A-A-355 (18")	128	EA	6

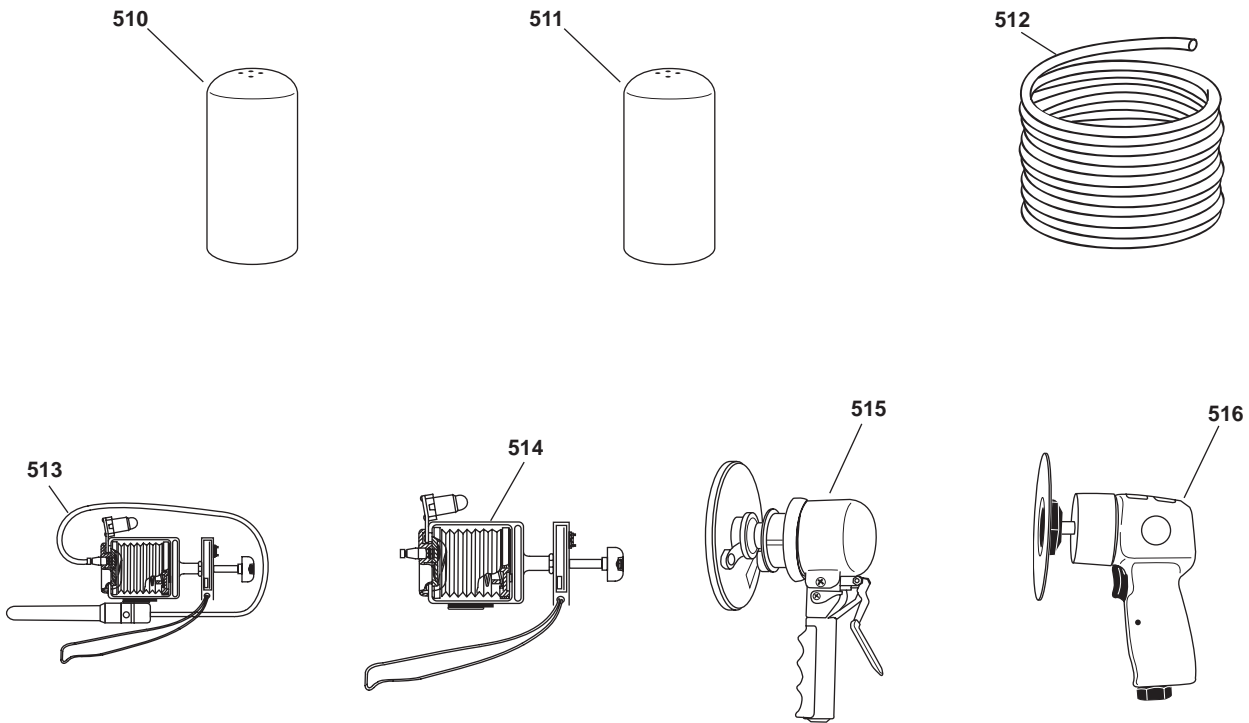


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
510	7350-00-240-7069	SALT SHAKER (Galley) (58536) A-A-1826	128	EA	2
511	7350-00-680-2630	SALT SHAKER (Galley) (80244) 7350-00-680-2630	128	EA	2
512	4720-01-529-5830	SAMPLING LINE (DC Locker) (8F723) 497335	128	EA	10
513	4720-01-521-1706	SAMPLING LINE, 10 FEET LONG (DC Locker) (8F723) 73067	128	EA	2
514	6665-01-429-8592	SAMPLING PUMP (DC Main Deck DE) (55799) 487500	128	EA	1
515	5130-00-340-0719	SANDER, DISC, PNEU (Machine Shop) (13797) 21HR-550	128	EA	1
516	5130-00-596-9728	SANDER, DISC, ELCL PORTABLE 115V AC/DC, PAD DIA 7 IN, TYPE 2, CLASS 2, HEAVY DUTY, SP FEAT FUNGUS RESISTANT (Machine Shop D11) (07429) 6112-90	128	EA	3



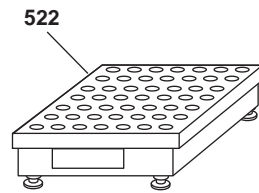
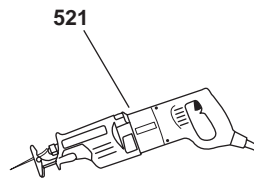
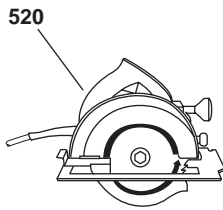
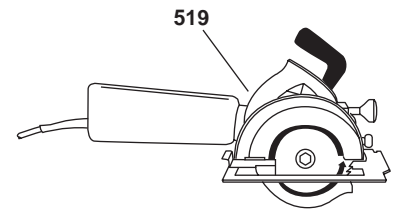
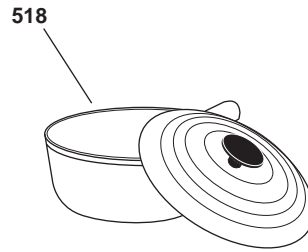
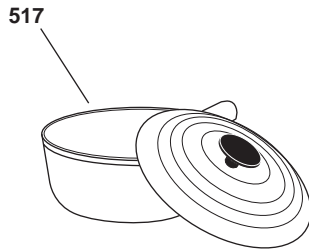


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
517	7330-00-240-2134	SAUCEPAN, W/COVER, 2 QT SIZE 1 (Galley) (80244) 7330-00-240-2134	128	EA	3
518	7330-00-240-2137	SAUCEPAN, W/COVER, 7-1/2 QT SIZE 3 (Galley) (80244) 7330-00-240-2137	128	EA	2
519	5130-00-343-8945	SAW, CIRCULAR, PNEUMATIC, PORTABLE, WITH 6 BLADES, 3 EA 44 TEETH & 3 EA 60 TEETH (DC Main Deck S8) (03990) 7468E	128	EA	2
520	5130-00-089-3353	SAW, CIRCULAR, PORTABLE 115V AC/DC, TYPE 1, SIZE 7 (Machine Shop) (80244) 5130-00-089-3353	128	EA	1
521	5130-00-889-7745	SAW, ELECTRIC, RECIPROCATING 115V AC (DC Main Deck S8) (80244) 5130-00-889-7745	128	EA	1
522	6670-00-629-7790	SCALE, WEIGHING (0-250 LB CAPACITY) (Machine Shop) (17885) SFAVO	128	EA	1

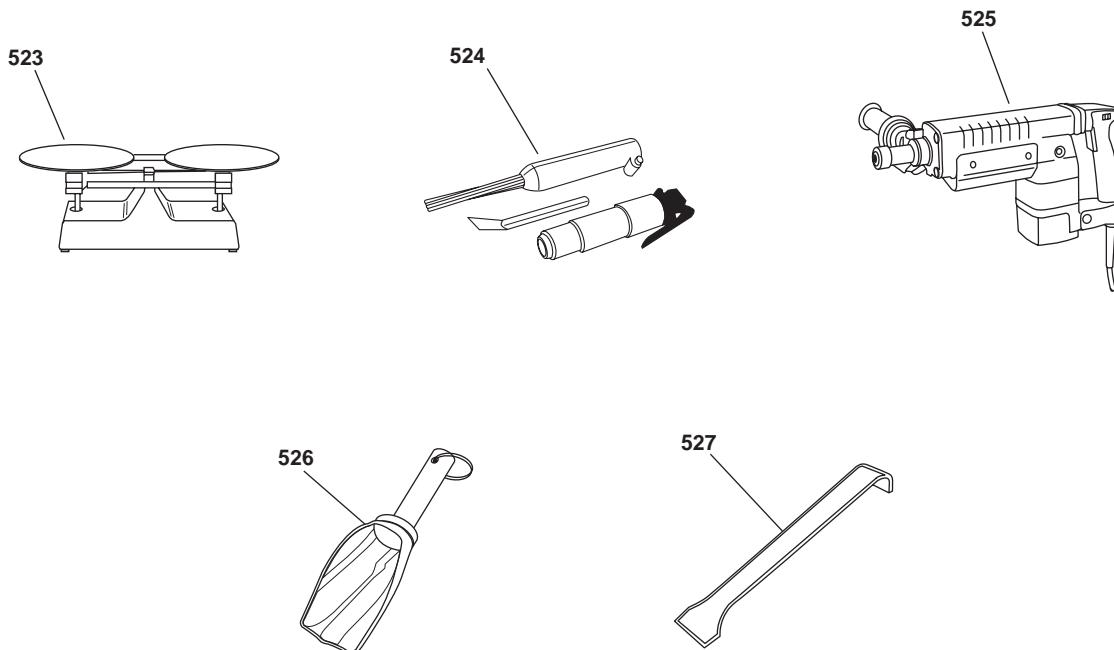


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
523	6670-01-432-0062	SCALE, WEIGHING BAKERS, 8 LB CAP (Galley) (17087) 1002TB	128	EA	1
524	5130-00-965-9876	SCALER, PNEUMATIC, PORTABLE, NEEDLE TYPE (DC Main Deck DD) (19911) 130.124	128	EA	1
525	5130-00-288-6577	SCALING AND CHIPPING TOOL, ELECTRICAL (DC Main Deck DC) (58536) A-A-2351	128	EA	3
526	7330-00-153-9760	SCOOP, KITCHEN, STAINLESS STEEL 7 - 7-1/8" X 5-1/4" (Galley) (80244) 7330-00-153-9760	128	EA	2
527	5110-00-240-3094	SCRAPER, SHIP, ALL METAL, 15" LONG ANGLE-BENT END, TYPE 1, CLASS A (Paint Locker Main Deck) (80244) PD5110-00-240-3094	128	EA	2

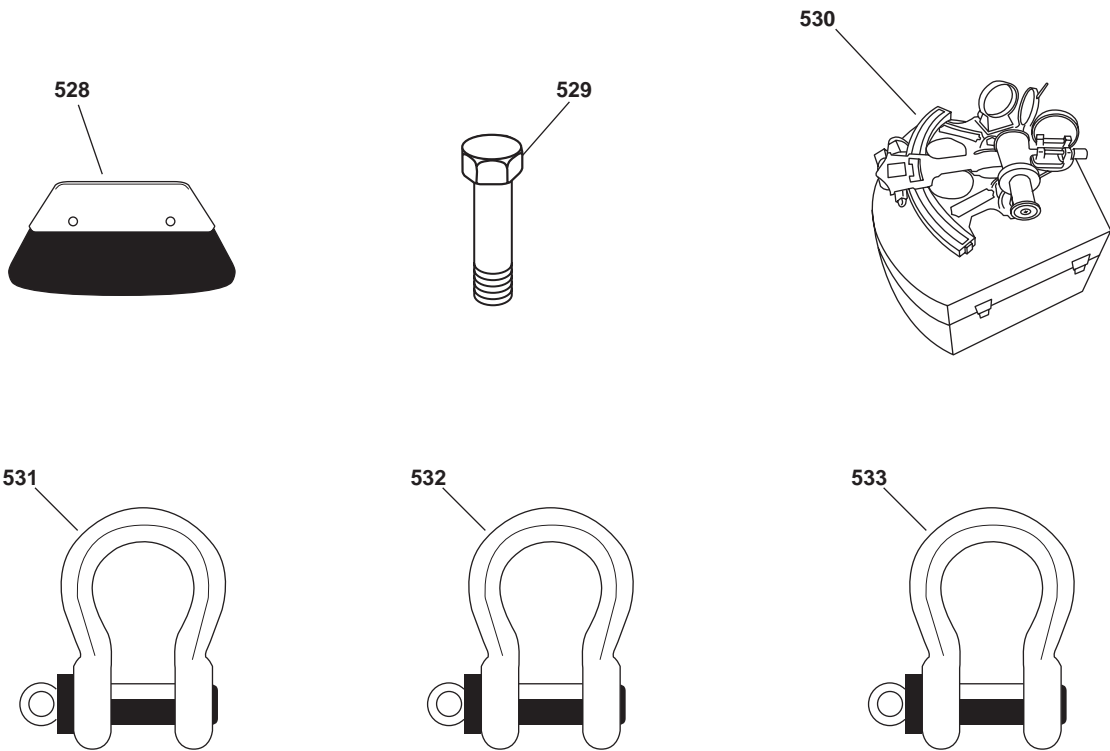


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
528	7330-00-680-2636	SCRAPER, BAKER'S, RUBBER BLADE, WOOD HANDLE (Galley) (80244) 7330-00-680-2636	128	EA	4
529	5305-01-360-5972	SCREW, CAP, HEXAGON HEAD (Machine Shop) (80871) 0019-1273-150	128	DZ	1
530	6605-01-253-3442	SEXTANT, MARINE (Bosuns Store Room) (58536) A-A-59005	128	EA	1
531	4030-01-529-5144	SHACKLE, ANCHOR W/SCREW PIN, 1-3/8" 1 1/12" PIN DIA (Bosun's Locker) (39428) 3558T57	128	EA	2
532	4030-00-282-4885	SHACKLE, ANCHOR, W/SCREW PIN, 5/16 IN, 3/8 IN PIN DIA (Bosun's Locker) (39428) 3558T46	128	EA	10
533	4030-01-099-2692	SHACKLE, ANCHOR, W/SCREW PIN, 5/8" 3/4" PIN DIA (Bosun's Locker) (39428) 3558T51	128	EA	10

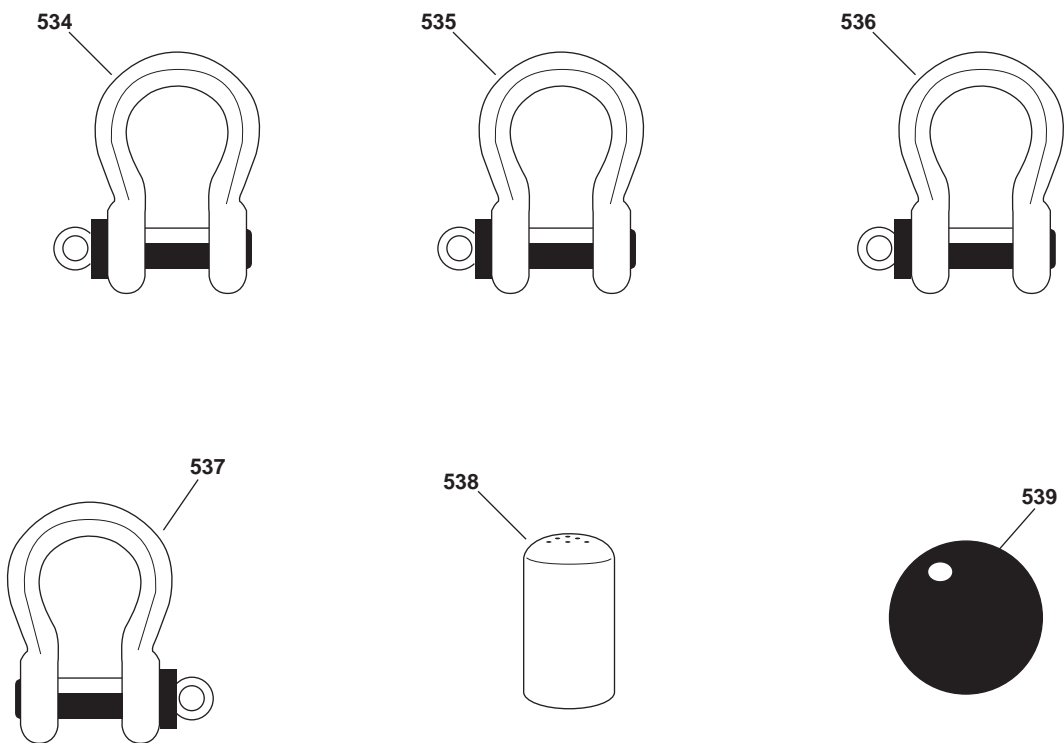


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
534	4030-00-185-0490	SHACKLE, ANCHOR, W/SCREW PIN 7/16" 1/2" PIN DIA (Bosun's Locker) (81348) RR-C-271	128	EA	10
535	4030-01-158-2131	SHACKLE, ANCHOR, W/SCREW PIN 7/8" 1" PIN DIA (Bosun's Locker) (39428) 3558T53	128	EA	10
536	4030-01-436-3755	SHACKLE, ANCHOR, W/SCREW PIN, 3/16" X 1/4" (Bosun's Locker) (9L479) 3558T44	128	EA	10
537	4030-01-529-5138	SHACKLE, CHAIN, W/SCREW PIN 1-3/4" 2" PIN DIA (Bosun's Locker) (39428) 3560T58	128	EA	10
538	7350-00-240-7068	SHAKER, PEPPER (Galley) (58536) A-A-1826	128	EA	10
539	8345-00-174-0453	SHAPE, DAY, MARITIME, BALL, BLACK (Pilothouse) (81349) MIL-S-29108	128	EA	2

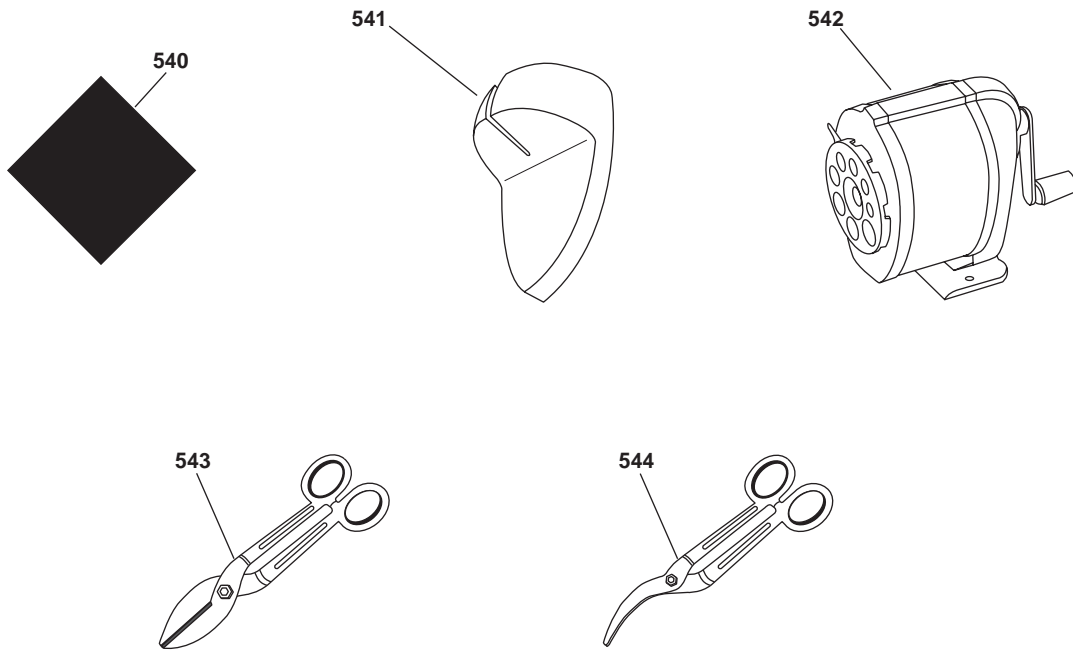


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
540	8345-01-101-1101	SHAPE, DAY, MARITIME, DIAMOND, BLACK, PER USOG RQMTS (Pilothouse)	128	EA	3
541	7330-00-798-7356	SHARPENER, KNIFE, WALL MOUNTED (Galley)	128	EA	2
542	7520-00-162-6178	SHARPENER, PENCIL, MANUAL (On Station)	128	EA	1
543	5110-00-221-1087	SHEARS, METAL CTG, COMBINATION CUT, 12-1/2 IN OVERALL LENGTH, 2-3/4 IN TO 3-1/2 CUT, TYPE 2 CLASS 3 (Machine Shop Cab A)	128	EA	5
544	5110-00-221-1083	SHEARS, METAL CTG, STRAIGHT CUT, 16, OVERALL LENGTH, 2-1/4" TO 3-1/2" CUT, TYPE 2, CLASS 1, STYLE A (Machine Shop D9)	128	EA	2

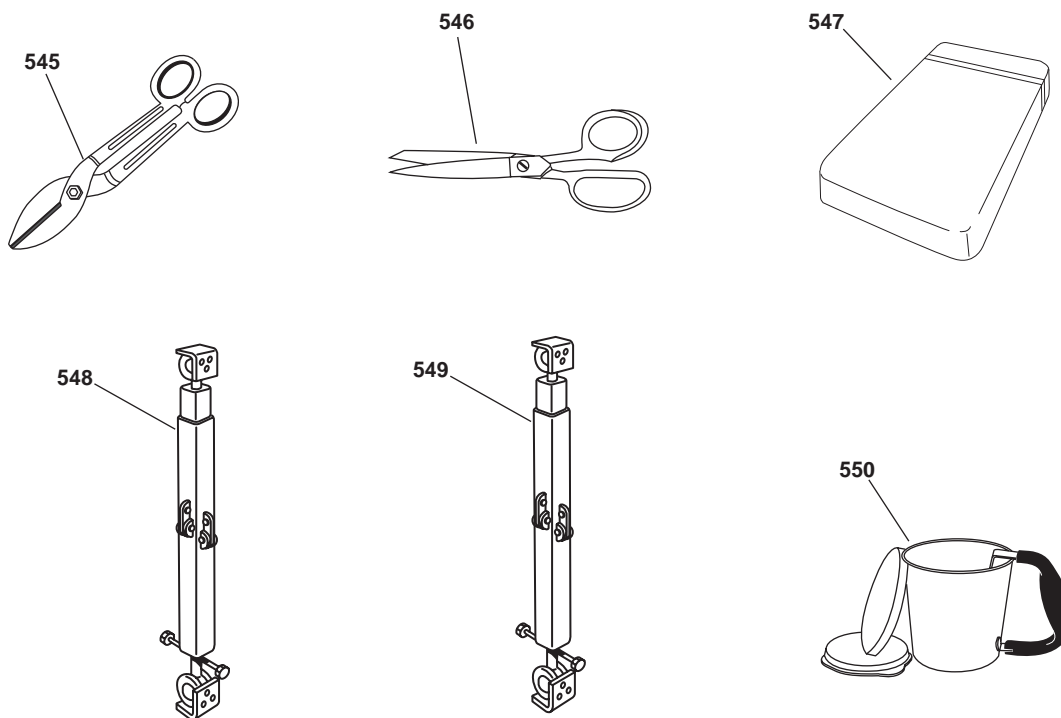


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
545	5110-00-293-0089	SHEARS, METAL CUTTING, STR CUT, 2-1/2" TO 3-1/2" CUT, 12-1/2" OVERALL LENGTH, TYPE 2, CLASS 1, STYLE B (Machine Shop Cab C) (70786) 012	128	EA	2
546	5110-00-161-6909	SHEARS, STRAIGHT TRIMMERS, 9", 1 BEVEL/1 SHARP PT. TYPE 1, CLASS 1, STYLE A DESIGN 2 (Machine Shop, AMS2) (80244) PD5110-00-161-6909	128	EA	2
547	7210-01-119-6416	SHEET, BED, COTTON FLAT WHITE 66" X 102" (Linen Locker) (80244) 7210-01-119-6416	128	EA	2
548	2090-00-058-3737	SHORE, DAMAGE CONTROL (Bosuns Store Room) (81349) MIL-S-23965MODEL3-5	128	DZ	8
549	2090-00-052-1581	SHORE, DAMAGE CONTROL (Towing Gear Locker) (81349) MIL-S-23965	128	EA	6
550	7330-00-184-0089	SIFTER, FLOUR 1-1/2 QT (Galley) (80244) 7330-00-184-0089	128	EA	6

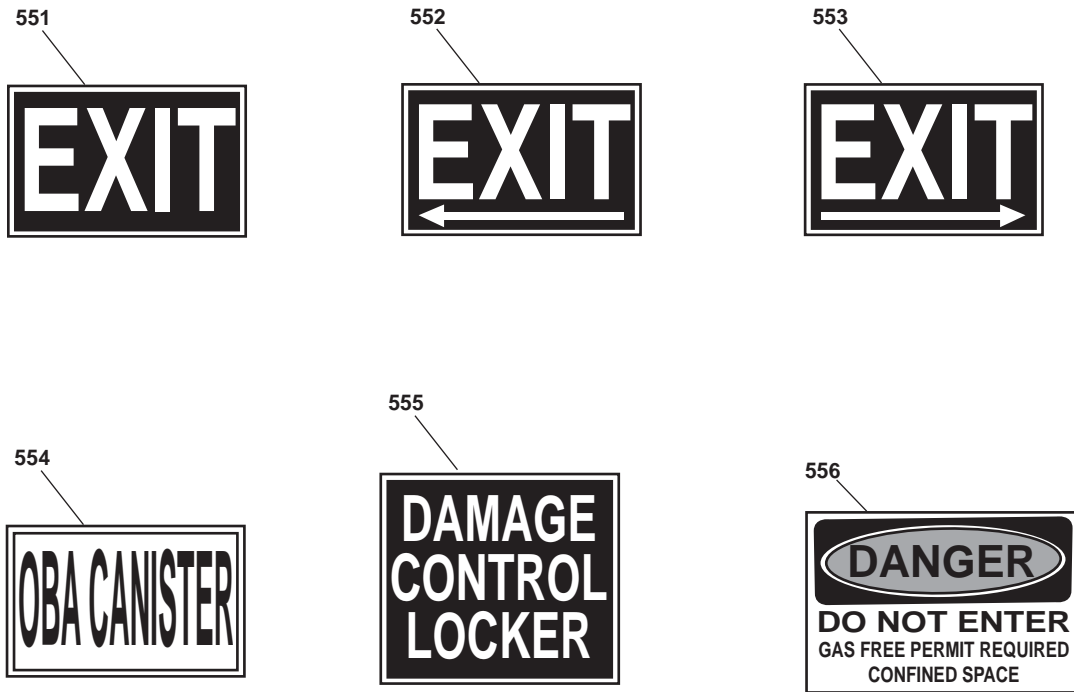


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
551	7690-01-462-6269	SIGN, REFLECTIVE, "EXIT" (Fitted) (76381) 3MN113PL	128	BX	1
552	9905-01-462-6249	SIGN, "EXIT" LEFT ARROW (Fitted) (76381) 3MN118PL	128	PG	1
553	9905-01-462-6247	SIGN, "EXIT" RIGHT ARROW (Fitted) (76381) 3MN119PL	128	PG	1
554	9905-01-462-6310	SIGN, "OBA CANISTER" (Fitted) (76381) 3MN103PL	128	PG	1
555	7690-01-462-6869	SIGN, REFLECTIVE, "DAMAGE CONTROL LOCKER" (Fitted) (76381) 3MN036DG	128	PG	1
556	7690-01-462-6057	SIGN, REFLECTIVE, "DANGER, DO NOT ENTER, GAS FREE PERMIT REQUIRED, CONFINED SPACE" (Fitted) (76381) 3MN203DG	128	PG	1

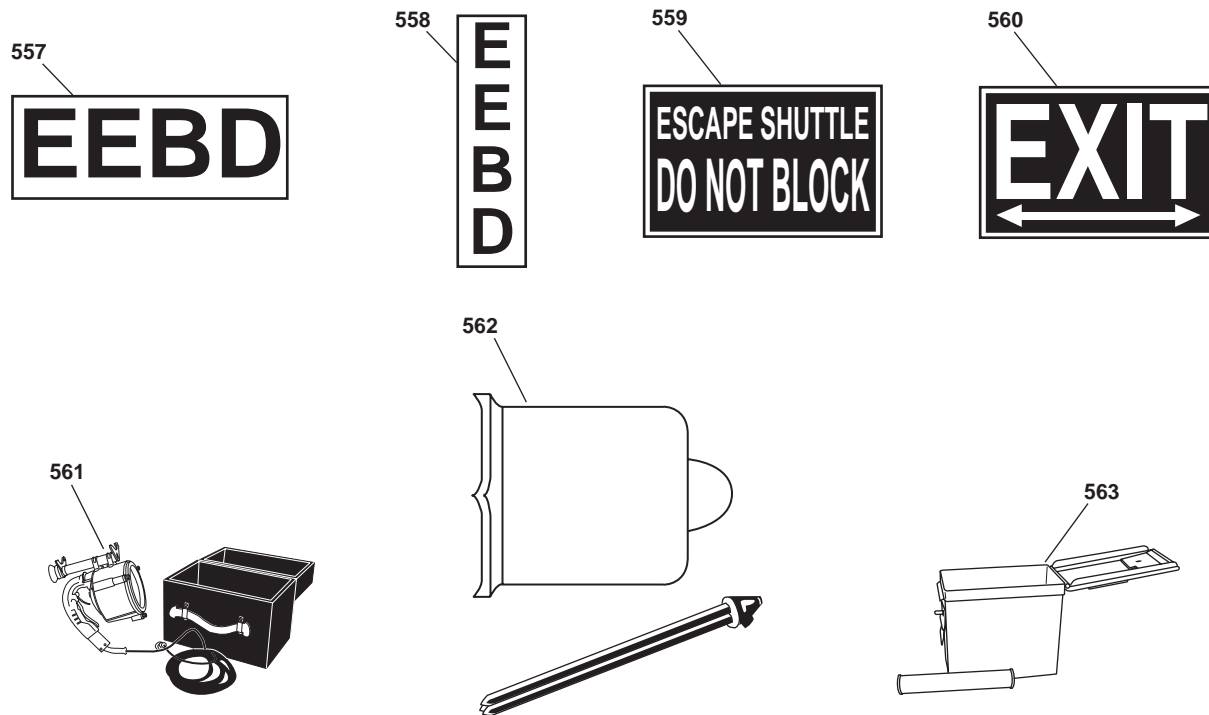


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
557	7690-01-462-6288	SIGN, REFLECTIVE, "EEBD HORIZONTAL" (Fitted) (76381) 3MN109PL	128	PK	1
558	7690-01-462-6300	SIGN, REFLECTIVE, "EEBD VERTICAL" (Fitted) (76381) 3MN107PL	128	PG	1
559	7690-01-462-6078	SIGN, REFLECTIVE, "ESCAPE SCUTTLE, DO NOT BLOCK" (Fitted) (76381) 3MN217DG	128	PG	1
560	7690-01-462-6617	SIGN, REFLECTIVE, "EXIT" DOUBLE ARROW (Fitted) (76381) 3MN120PL	128	PG	1
561	5850-00-356-3718	SIGNAL LAMP (Arms Room) (80063) M438	128	PG	1
562	5850-00-407-6671	SIGNAL LAMP EQUIPMENT (Arms Room) (80063) SE11	128	EA	2
563	1370-00-629-2336	SIGNAL, ILLUMINATION (DC Locker) (19203) 8797968	128	EA	1



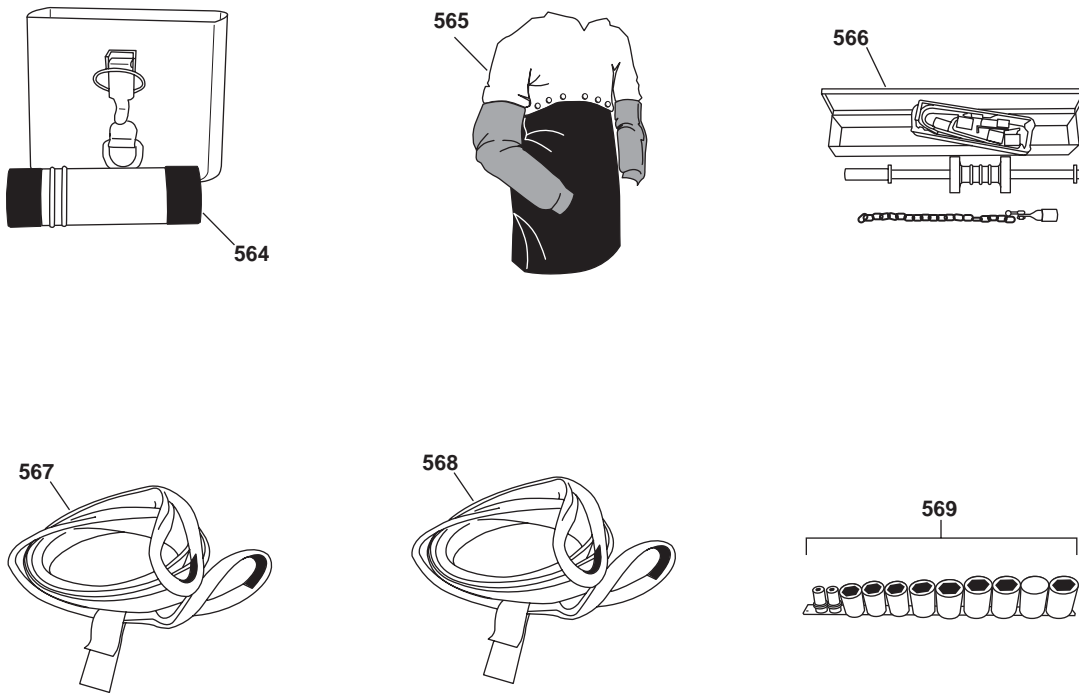


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
564	1370-01-030-8330	SIGNAL, SMOKE & ILLUMINATION, FOR RESCUE BOAT (DC Locker) (10001) DL3139734	128	EA	12
565	8415-00-261-6437	SLEEVE, CAPE AND BIB, WELDER'S (Galley) (58536) A-A-55098	128	EA	6
566	5120-01-530-7892	SLIDE HAMMER, PACKING EXTRACTION (Machine Shop, AMS2) (1BZ02) 45001225CO	128	EA	1
567	3940-01-183-9412	SLING, ENDLESS 1" X 6' (Machine Shop, AMS2) (15434) 3375957	128	EA	1
568	3940-01-187-5870	SLING, ENDLESS, 4000 LB CAPACITY (Machine Shop, AMS2) (15434) 3375958	128	EA	1
569	5120-01-113-8078	SOCKET SET, SOCKET WRENCH, METRIC (Machine Shop D9) (05047) B107.5M	128	EA	1

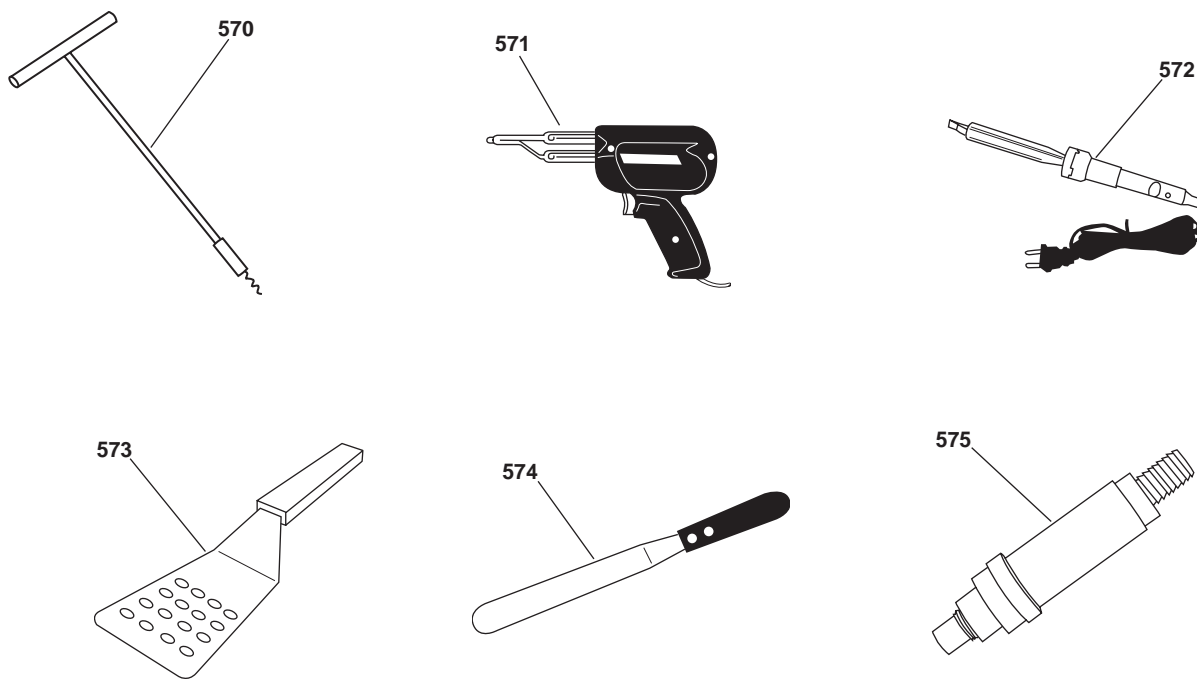


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
570		SOCKET, PACKING EXTRACTION, 20MM (Machine Shop, AMS2) (1BZ02) 45001205CO	128	SE	1
571	3439-00-930-1638	SOLDERING GUN, ELECTRICAL, TRIGGER OPERATED (Machine Shop D12) (11103) 460	128	EA	1
572	3439-01-443-3704	SOLDERING IRON, ELECTRIC 6' CORD (Machine Shop, AMS2) (78976) SL325	128	EA	2
573	7330-00-684-8740	SPATULA, STEEL 14" BLADE (Galley) (58536) A-A-2733	128	EA	1
574	7330-00-254-4791	SPATULA, STEEL, 8" SPRING- TEMPERED BLADE (Galley) (58536) A-A-2733	128	EA	2
575	3456-01-371-3727	SPEAR, TUBEPULLER (Machine Shop, AMS2) (70211) JSP-3/4-14	128	EA	2

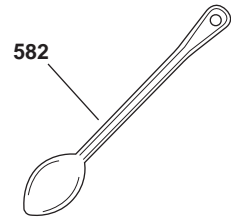
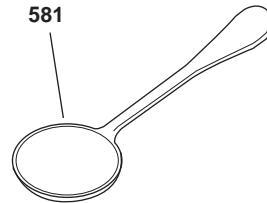
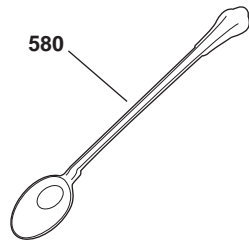
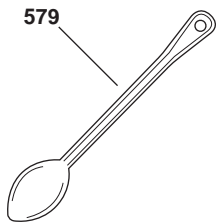
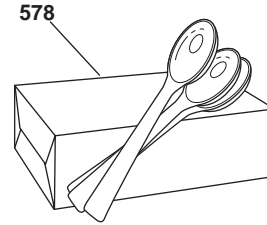
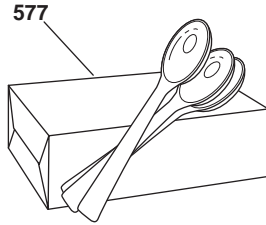
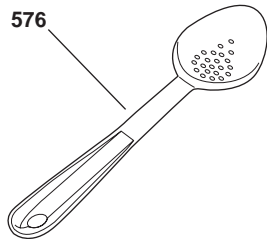


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
576	7340-00-205-1421	SPOON, SLOTTED SERVICE, 15" LG (Galley) (58536) A-A-1082	128	EA	1
577	7340-00-205-3341	SPOON, TABLE, CRESCENT 24 TO A BOX (Galley) (80244) 7340-00-205-3341	128	EA	2
578	7340-00-241-8171	SPOON, DESSERT, 7" LG, 24 TO A BOX (Galley) (80244) 7340-00-241-8171	128	BX	2
579	7340-00-240-7080	SPOON, FOOD SERVICE, 15" LG, TYPE 1 (Galley) (58536) A-A-1082	128	BX	2
580	7340-00-205-3340	SPOON, ICED TEA, 24 TO BOX, 6" LONG (Galley) (80244) 7340-00-205-3340	128	EA	4
581	7340-00-235-5023	SPOON, SOUP (Galley) (80244) 7340-00-235-5023	128	BX	2
582	7340-00-223-7800	SPOON, FOOD SERVICE, 21" LG (Galley) (58536) A-A-52204	128	DZ	2

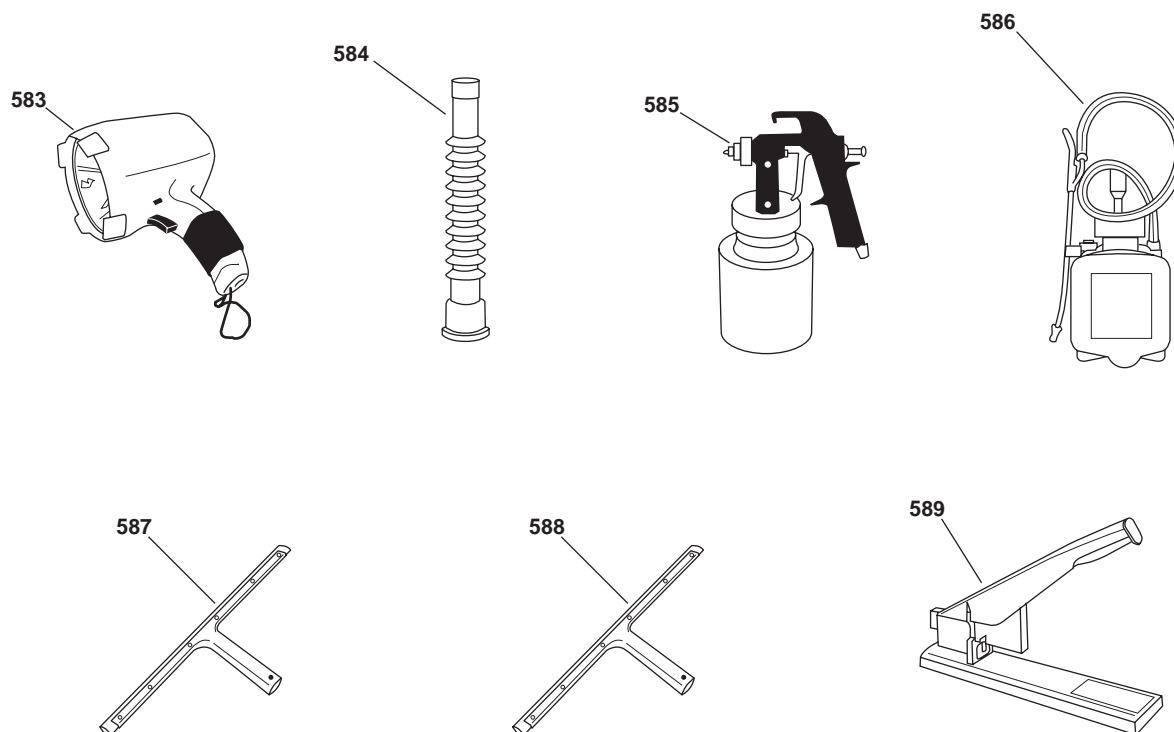


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
583	6230-01-529-4558	SPOTLIGHT, RECHARGABLE, 2 MILLION CP (DC Locker) (1XRW6) RC-3800	128	EA	2
584	7240-00-177-6154	SPOUT, CAN, FLEXIBLE (Fan Room Main Deck) (19207) 11677020	128	EA	1
585	4940-00-066-4254	SPRAY OUTFIT, PAINT AIR (Paint Locker Main Deck) (0F8R6) 63160	128	EA	2
586	3740-00-641-4719	SPRAYER, PESTICIDE (Bosun's Locker) (58536) A-A-55748	128	EA	1
587	7920-00-577-4747	SQUEEGEE, 10" (Bosun's Locker) (80244) 7920-00-577-4747	128	EA	1
588	7920-00-577-4748	SQUEEGEE (Laundry Room) (80244) 7920-00-577-4748	128	EA	1
589	7520-00-243-1780	STAPLER, PAPER FASTENING HEAVY DUTY (Pilothouse) (02809) 13	128	EA	1

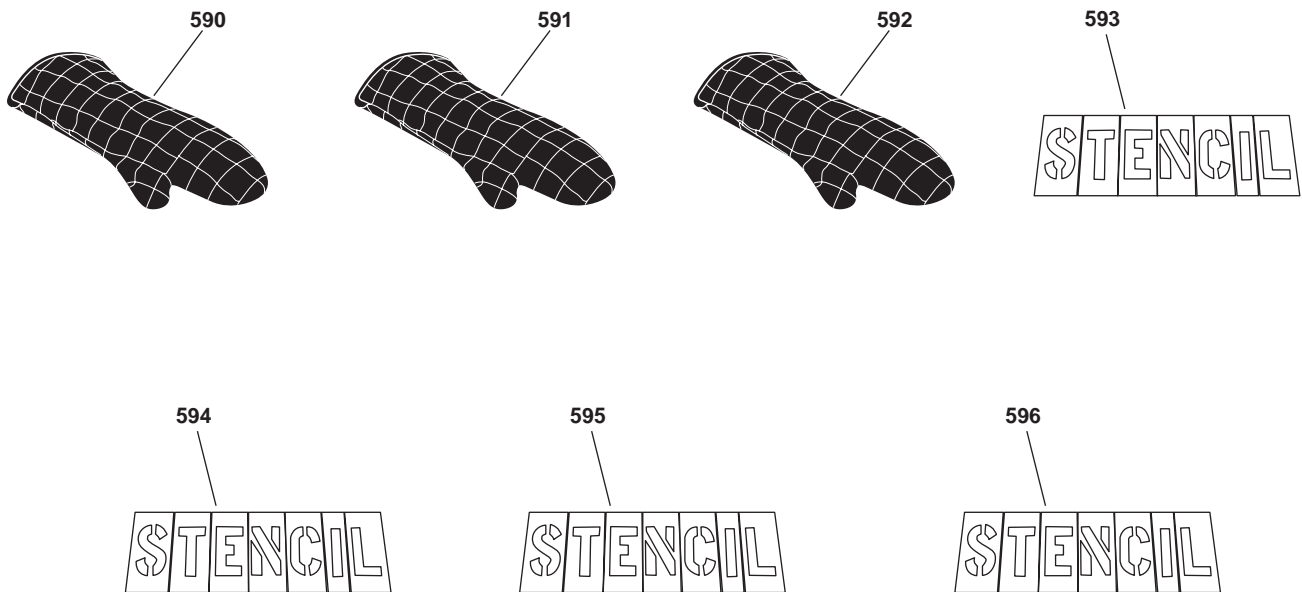


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
590	4210-01-476-5024	STEAMBLOCK GLOVE (Bosun's Locker) (1HT35) 5229 SIZE/LARGE	128	EA	3
591	4210-01-476-5031	STEAMBLOCK GLOVE (Bosun's Locker) (1HT35) 5229 (SZ X-LARGE)	128	PR	4
592	4210-01-476-5017	STEAMBLOCK GLOVE (Bosun's Locker) (1HT35) 5229 SIZE-MEDIUM	128	PR	4
593	7520-00-298-7043	STENCIL SET, MARKING 1" IN BRASS INTERLOCKING LETTERS (DC Locker) (83421) 7520-00-298-7043	128	PR	4
594	7520-00-298-7044	STENCIL SET, MARKING 2" BRASS INTERLOCKING LETTERS (DC Locker) (83421) 7520-00-298-7044	128	SE	1
595	7520-00-272-9683	STENCIL SET, MARKING 3" BRASS INTERLOCKING LETTERS (DC Locker) (83421) 7520-00-272-9683	128	SE	1
596	7520-00-269-9012	STENCIL SET, MARKING 4" METAL LETTERS (DC Locker) (83421) 7520-00-269-9012	128	SE	1

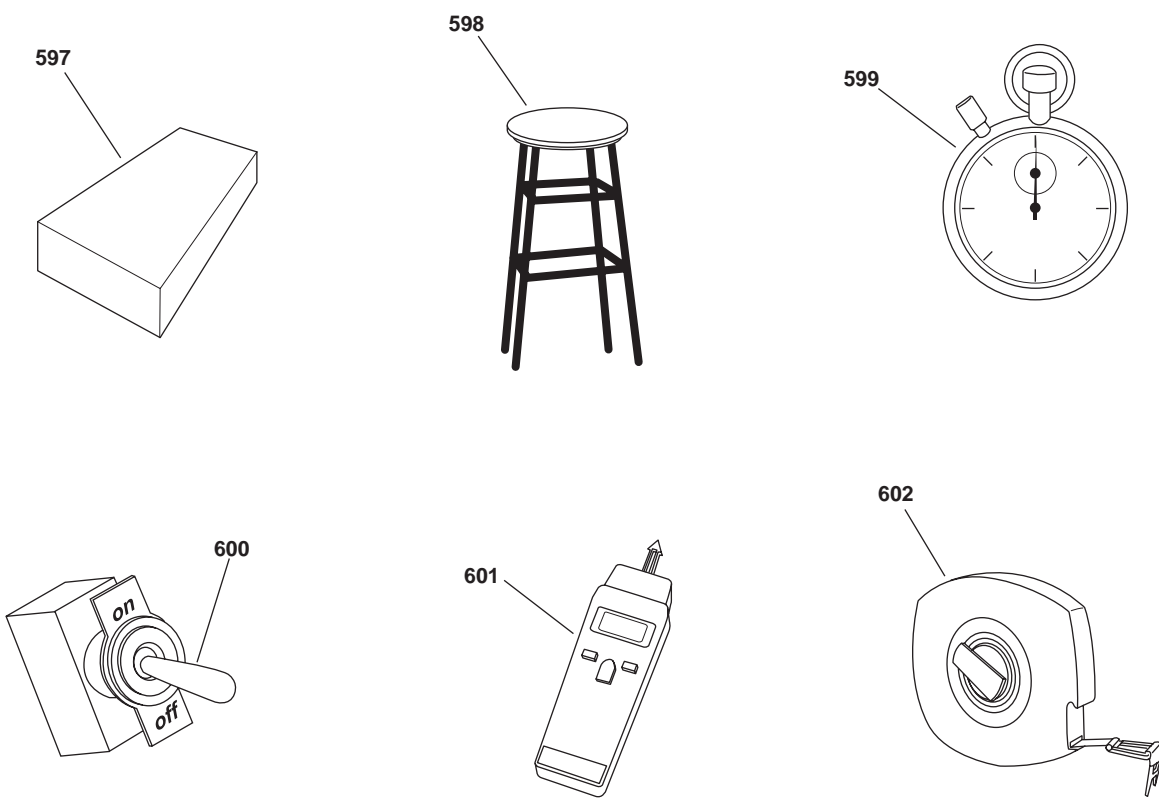


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
597	5345-00-190-5528	STONE, SHARPENING RECTANGULAR, 8" X 2" X 1", ALUMINUM OXIDE, MEDIUM GRIT, TYPE 2, STYLE 1 (Machine Shop, AMS2) (70752) A69M0	128	SE	1
598	7110-00-634-8596	STOOL, REVOLVING, WOOD (Machine Shop, AMS2) (58536) A-A-3014	128	EA	2
599	6645-00-250-4680	STOPWATCH, 60 SECOND, DIAL, TYPE 1, CLASS 2 (DC Locker) (81059) 358	128	EA	2
600	5930-00-387-2613	SWITCH, TOGGLE (ON/OFF, FOR NAVIGATION LIGHT TOWING) (DC Locker) (28763) 9015-0156	128	EA	2
601	6680-01-353-9776	TACHOMETER, HAND (Pilothouse) (89554) DT-25	128	EA	1
602	5210-00-234-6745	TAPE, MEASURING 50' STEEL GENERAL PURPO (Machine Shop CAB C) (37163) C213	128	EA	1

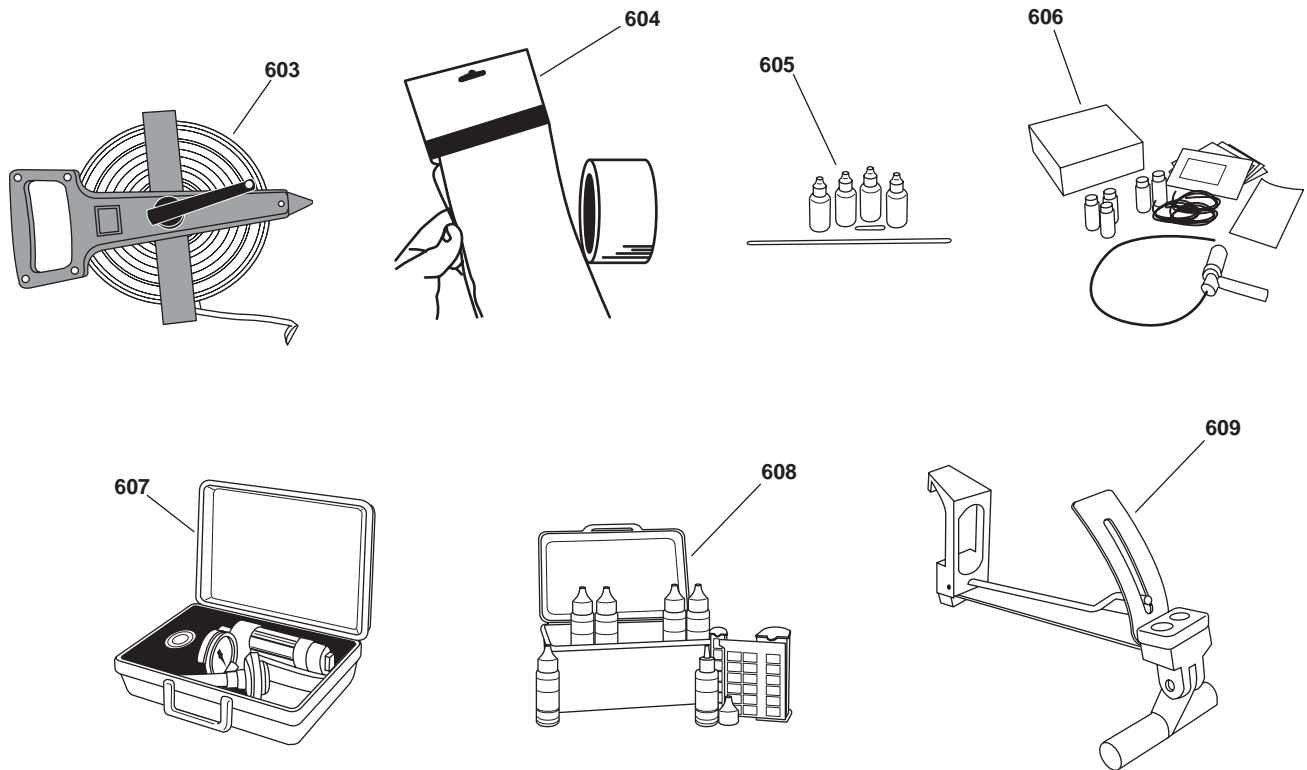


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
603	5210-00-526-0752	TAPE, MEASURING, TANK LEVEL GAUGE 50' LO (Machine Shop CAB C) (37163) 14075	128	EA	4
604	9390-01-462-6814	TAPE, LUMINOUS (Bosun's Locker) (76381) 3MN131PL	128	EA	2
605	6630-00-074-0394	TEST KIT, CHROMATE (Bow Thruster STB S2) (59728) 0534Z86	128	RL	1
606	6630-00-531-1968	TEST KIT, OIL CONDITION (Tool Cage EOS A2) (96009) DCA-300	128	EA	1
607	4910-00-728-8227	TEST KIT, RADIATOR (Machine Shop, AMS2) (56161) 10513874	128	EA	1
608		TEST KIT, SANITIZER (DC Locker) (93255) ICQ-260	128	EA	1
609	4940-01-035-3782	TEST STAND, LASH ADJUSTER (Machine Shop, AMS2) (72915) 8267432	128	KT	3

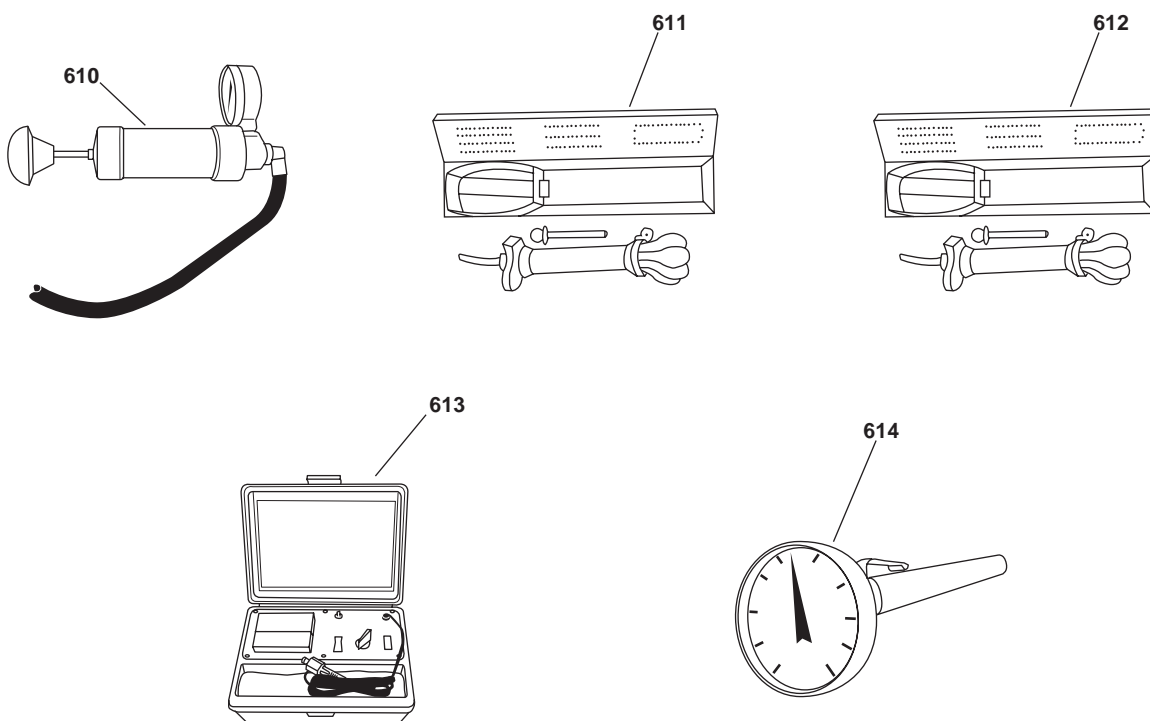


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
610	6630-00-247-2968	TESTER, ANTIFREEZE, SOLUTION FLT TYP W/THERMOMETER, 60 TO 180 F (Machine Shop, AMS2) (72853) 460	128	EA	1
611	6630-01-275-2247	TESTER, BATTERY, ELECTROLYTE SOLUTION (Machine Shop CAB C) (11083) 6V4930	128	EA	2
612	6630-00-171-5126	TESTER, BATTERY, ELECTROLYTE SOLUTION (Machine Shop CAB C) (93489) 6630-00-171-5126	128	EA	1
613	6685-01-306-2881	THERMISTOR, GAGE (INDICATOR, VACUUM) (Machine Shop, AMS2) (07295) 14526	128	EA	2
614	6685-00-444-6500	THERMOMETER, POCKET DIAL, BI METALLIC 0- (Pilothouse) (1DWR0) D4013-A	128	EA	1



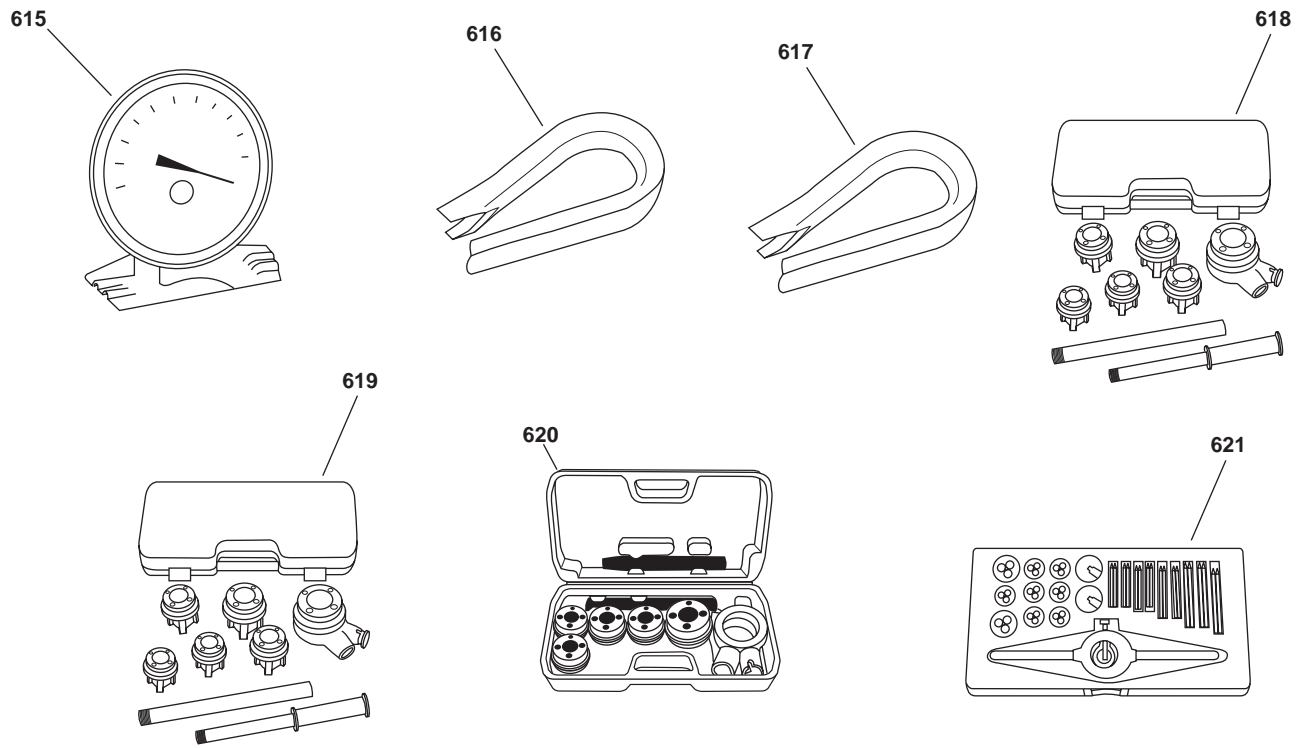


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
615	6685-00-641-0189	THERMOMETER, SELF INDICATING, HEAT (Galley) (81348) GG-T-353 TYPE 1	128	EA	2
616	4030-00-270-8708	THIMBLE WIRE ROPE 5/8 (Bosun's Locker) (75535) G414 5-8	128	EA	2
617	4030-00-266-0066	THIMBLE, WIRE ROPE 1/2 (Bosun's Locker) (81348) FFT276	128	EA	20
618	5136-01-274-4239	THREADER (Machine Shop, AMS2) (32862) SK-0051	128	EA	20
619	5180-00-357-7514	THREADING SET, PIPE, 1/8 TO 1 (Paint Locker Main Deck) (80244) 5180-00-357-7514	128	EA	1
620	5136-00-555-8912	THREADING SET, PIPE, 1 TO 2 (Tool Cage EOS A3) (58536) A-A-306	128	KT	1
621	5180-00-856-3471	THREADING SET, SCREW (Machine Shop) (1JU00) 23614	128	EA	1

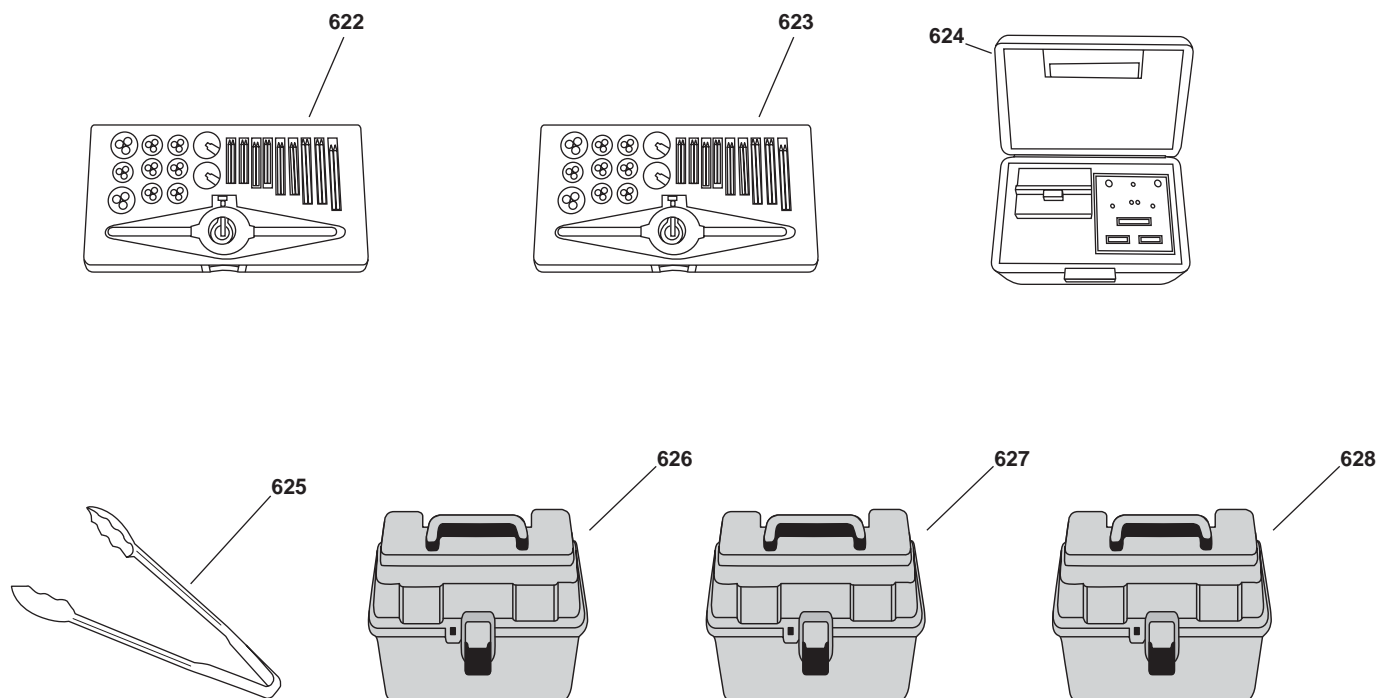


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
622	5180-00-448-2362	THREADING SET, SCREW (Tool Cage EOS A1) (81348) GGG-T-330	128	KT	1
623	5180-00-422-4975	THREADING SET, SCREW, WITH CASE RH THREE (Tool Cage EOS A3) (81348) GGG-T-330	128	KT	1
624	6645-01-127-5415	TIMING INDICATOR (DC Locker VIDMAR) (11083) 5P4165	128	KT	1
625	7330-00-616-0997	TONGS, FOOD- SERVING 12 LONG (Galley) (64067) 7330-00-616-0997	128	EA	1
626	5140-00-587-5558	TOOL BOX, PORTABLE (Machine Shop CAB A) (80244) 5140-00-587-5558	128	EA	4
627	5180-01-348-6741	TOOL KIT (AMS 2) (80871) 2125-9901-000	128	EA	1
628	5180-00-356-4614	TOOL KIT (Tool Cage EOS B1) (80063) 6R38188-3	128	EA	1

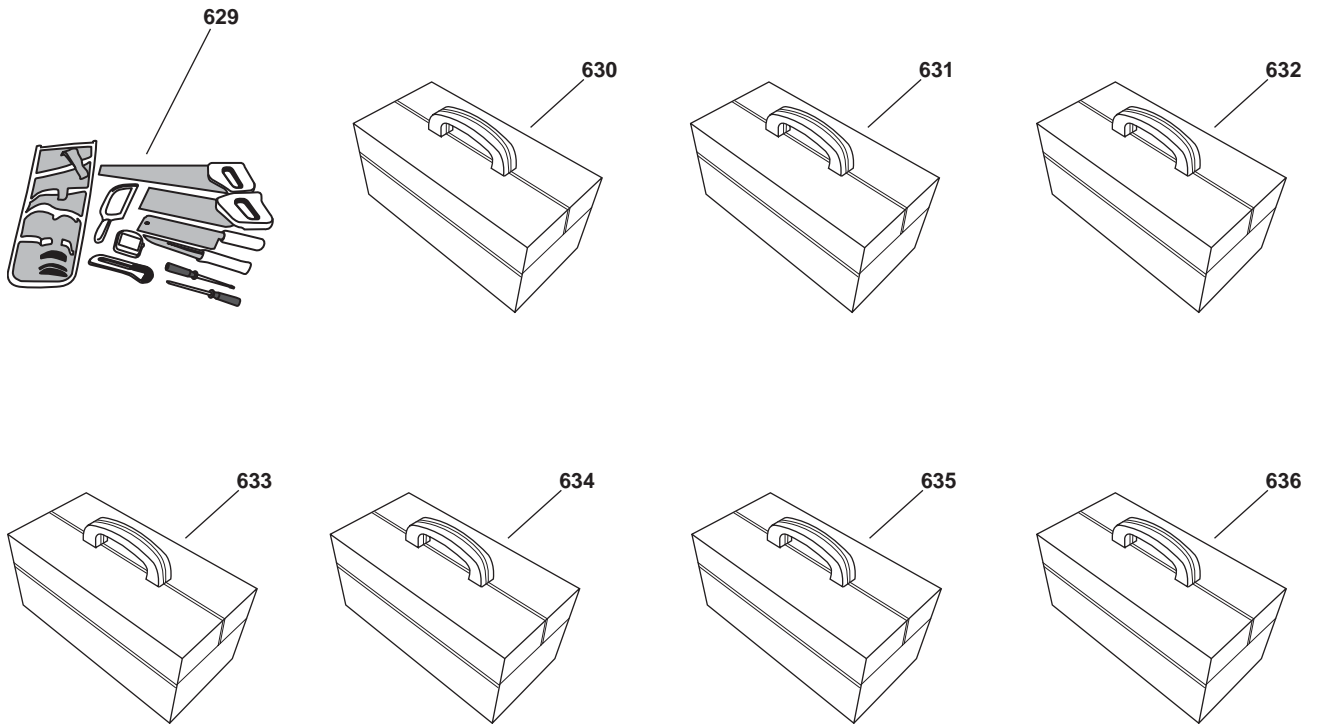


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
629	5180-00-293-2875	TOOL KIT, CARPENTERS (Machine Shop CAB A) (50980) SC5180-90-CL-N08	128	KT	1
630	5180-00-391-1087	TOOL KIT, ELECTRICAL (AMS 2) (80244) 5180-00-391-1087	128	KT	1
631	5180-00-313-3045	TOOL KIT, ELECTRICIAN'S (AMS 2) (50980) SC5180-90-CL-N35	128	KT	1
632	5180-00-629-9783	TOOL KIT, GENERAL MECHANIC'S (Machine Shop D1) (50980) SC 5180-90-CL-N55	128	KT	2
633	5280-00-511-1950	TOOL KIT, MACHINISTS (Machine Shop D13) (19204) SC5280-95CLA02	128	KT	4
634	5180-00-699-5273	TOOL KIT, MASTER, MECHANICS (Tool Cage EOS A1) (50980) SC5180-90-CL-N05	128	SE	1
635	5120-01-428-8214	TOOL KIT, METRIC (AMS 2) (55719) OEXSM714K	128	KT	1
636	5180-00-596-1474	TOOL KIT, REFRIGERATION (Machine Shop) (50980) SC 5180-90-CL-N18	128	EA	1

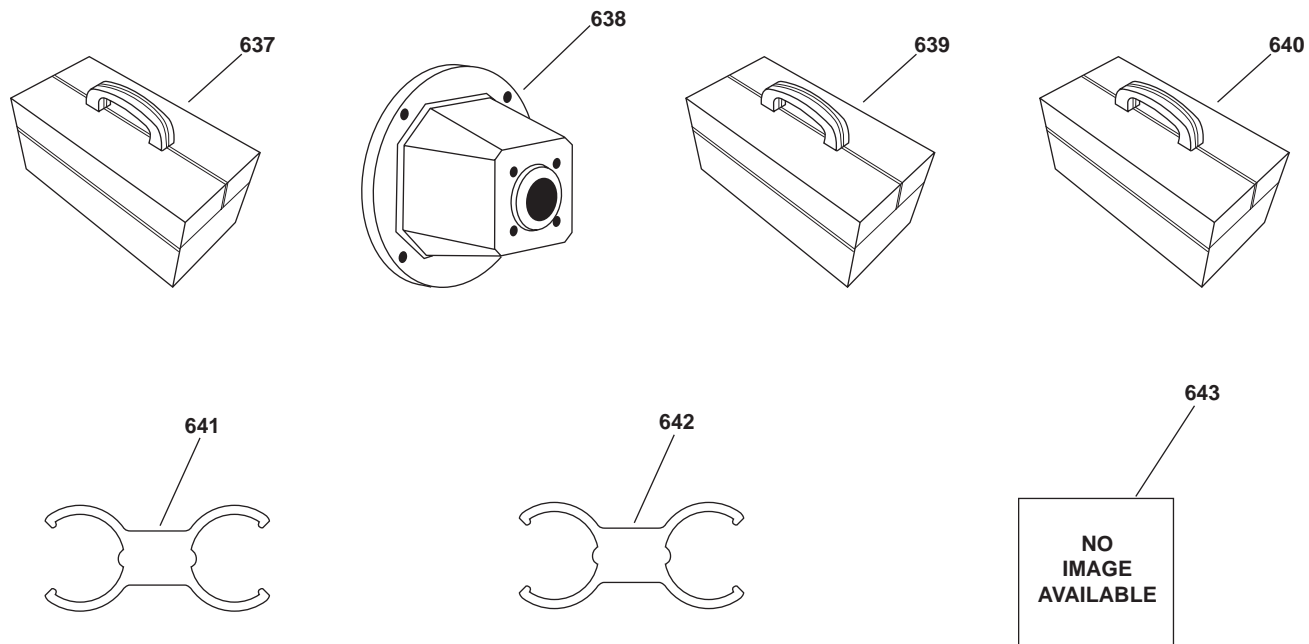


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
637	5180-00-754-0661	TOOL KIT, WELDER'S (Machine Shop, AMS2) (50980) SC 5180-90-N39	128	KT	1
638	5120-01-356-8183	TOOL KIT, COUPLING (Machine Shop, AMS2) (64589) 728237	128	KT	2
639		TOOL KIT, DURCO (Machine Shop, AMS2) (18930) 78880689	128	EA	1
640	5280-00-278-9919	TOOL SET, MEASURING MACHINIST (Machine Shop CAB C) (19204) SC5280-95CLA01	128	KT	1
641	5130-01-502-6505	TOOL, BRG LOCKNUT (Machine Shop, AMS2) (64462) 592Y	128	SE	1
642	5120-01-530-8720	TOOL, LOCKNUT (Machine Shop, AMS2) (07524) 903090	128	EA	1
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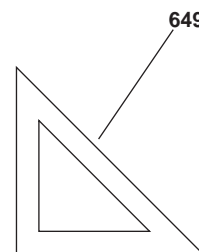
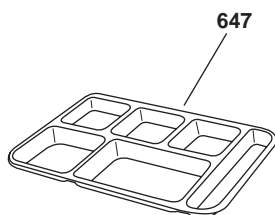
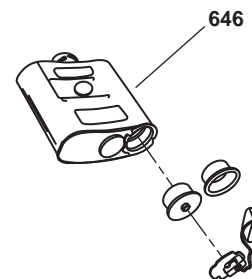
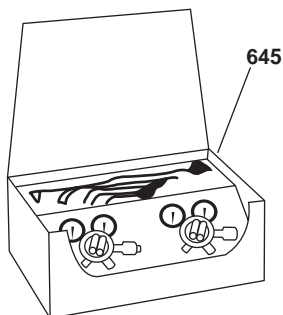


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
644	3439-00-542-0531	TORCH KIT, SOLDERING, LP GAS (Machine Shop D10) (70785) JT25	128	EA	1
645	3433-00-357-8116	TORCH, OUTFIT, CUTTING AND WELDING WITH SETS AND SUPPLY ITEMS (Machine Shop, AMS2) (50980) SC 3433-90-CL-N03	128	OT	1
646	4240-00-238-9959	TRAINING KIT, CANISTER (DC Locker) (55799) 454013	128	KT	2
647	7350-00-195-7334	TRAY, MESS, CRES, 6 COMPARTMENTS STEEL (Galley) (81337) DWG 5-13-918	128	EA	24
648	6675-00-866-0110	TRIANGLE, DRAFTING (Pilothouse) (1L9S9) 1608	128	EA	2
649	6675-00-190-5862	TRIANGLE, DRAFTING, PLASTIC 45 X 45 DEG 8" (Pilothouse ) (80244) 6675-00-190-5862	128	EA	2

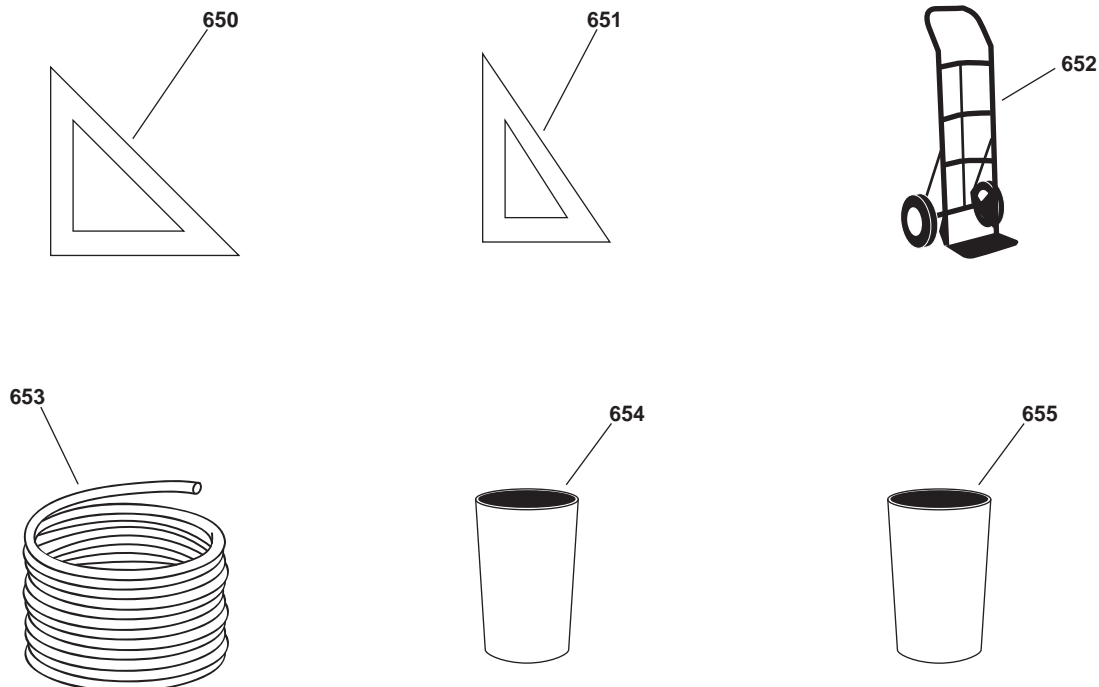


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
650	6675-00-190-5856	TRIANGLE, DRAFTING, PLASTIC, 45 X 45 DEGREE, 4", TYPE 1 (Pilothouse) (81336) PD392	128	EA	2
651	6675-00-190-5867	TRIANGLE, DRAFTING, PLASTIC 30 TO 60 DEG 11 (Pilothouse) (81336) PD392	128	EA	2
652	3920-01-113-3517	TRUCK, HAND, 2 WHEELED, 500 LB CAPACITY (Machine Shop D7) (81348) KKK-T-683	128	EA	1
653	4720-01-521-1706	TUBING, NONMETALLIC (DC Locker) (00VT4) 73067	128	BX	1
654	7350-00-170-8330	TUMBLER DRINKING (Galley) (80244) 7350-00-170-8330	128	BX	1
655	7350-00-223-7836	TUMBLER, DRINKING, 10 OZ, PLASTIC (Galley) (80244) 7350-00-223-7836	128	DZ	2

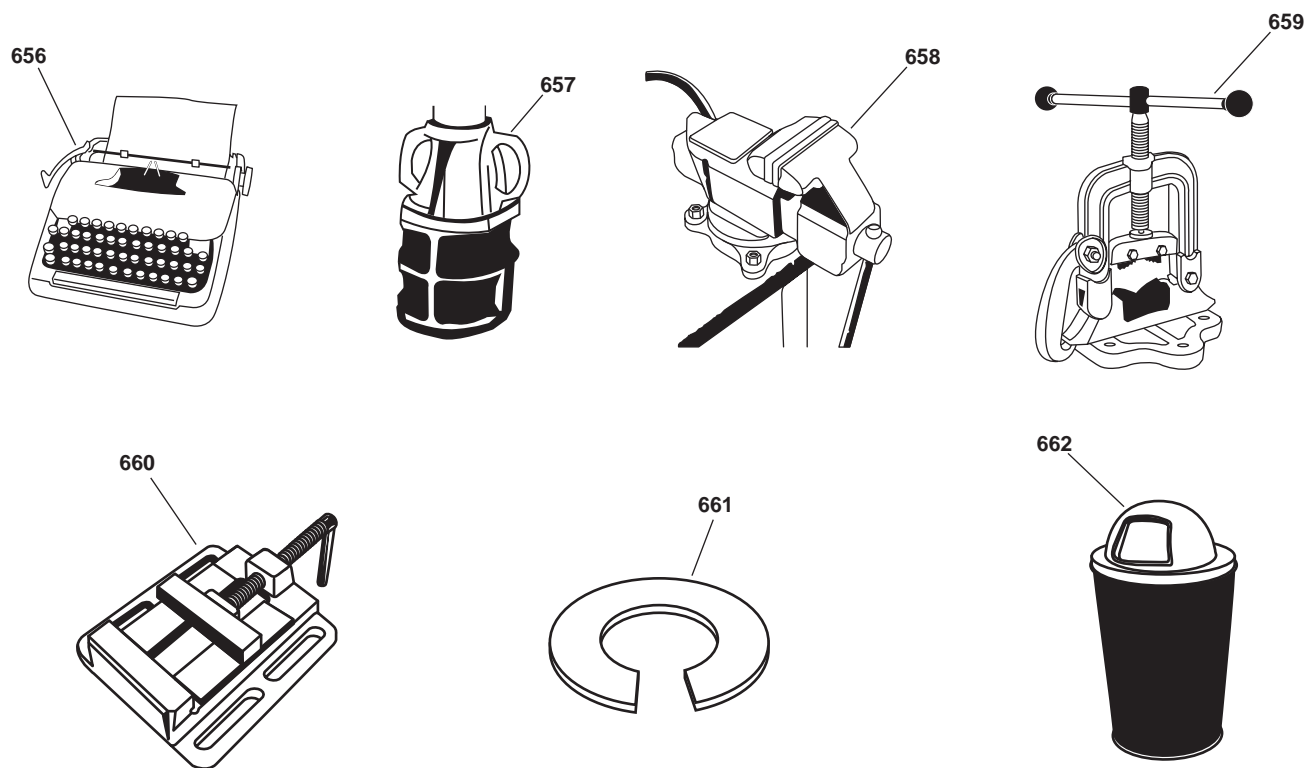


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
656	7430-00-267-3457	TYPEWRITER, ELECTRIC (Arms Room) (50456) ELECTRIC	128	EA	1
657	4820-00-540-2381	VALVE, FOOT (Vid Mar Vest D4) (20266) 315F-N	128	AY	2
658	5120-00-243-9072	VISE, BENCH AND PIPE, 5 IN JAW 6 IN OPENING, TYPE 4 (Machine Shop, AMS2) (80244) PD5120-00-243-9072	128	EA	1
659	5120-00-288-6518	VISE, PIPE, HINGED-JAW, 1/8B TO 4-1/2 CAP, TYPE 1, CLASS 2 (Machine Shop, AMS2) (58536) A-A-3050	128	EA	1
660	5120-00-224-7088	VISE, RIGGER, WIRE ROPE SPLICING (Towing Gear Locker) (60903) 1210000	128	EA	1
661	5310-01-342-7255	WASHER, LOCK (Machine Shop, AMS2) (53214) 2012	128	EA	1
662	7240-00-857-2277	WASTE RECEPTACLE, TRASH CAN WITH COVER, 24 GAL (Machine Shop) (5G116) NSF STANDARD 21	128	EA	2

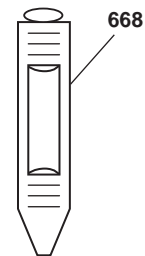
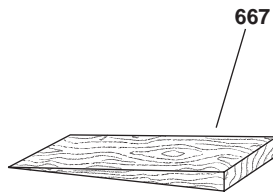
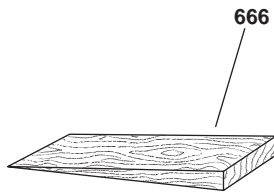
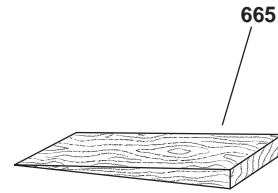
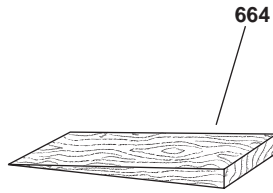
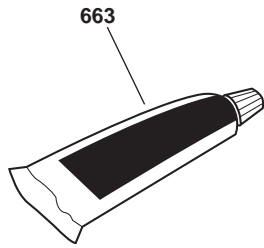


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
663	6850-00-001-4194	WATER INDICATOR, PASTE (DC Locker) (65093) SAR-GEL	128	PG	1
664	5510-00-268-3476	WEDGE, TAPERED, HARD WOOD, 1-1/2" X 2" X 12" (DC Main Deck S14) (80064) 5510-00-268-3476	128	EA	10
665	5510-00-268-3479	WEDGE, TAPERED, HARD WOOD, 2" X 2" X 8" (DC Main Deck S14) (80064) 5510-00-268-3479	128	EA	10
666	5510-00-268-3485	WEDGE, TAPERED, HARD WOOD, 4" X 2" X 8" (DC Main Deck S14) (80064) 5510-00-268-3485	128	EA	10
667	5510-00-268-3475	WEDGE, WOOD (DC Main Deck S14) (80064) 5510-00-268-3475	128	EA	10
668	6605-00-266-6773	WEIGHT, SOUNDING, 9 LB (Arms Room) (81349) M-3717-14LBS	128	EA	1



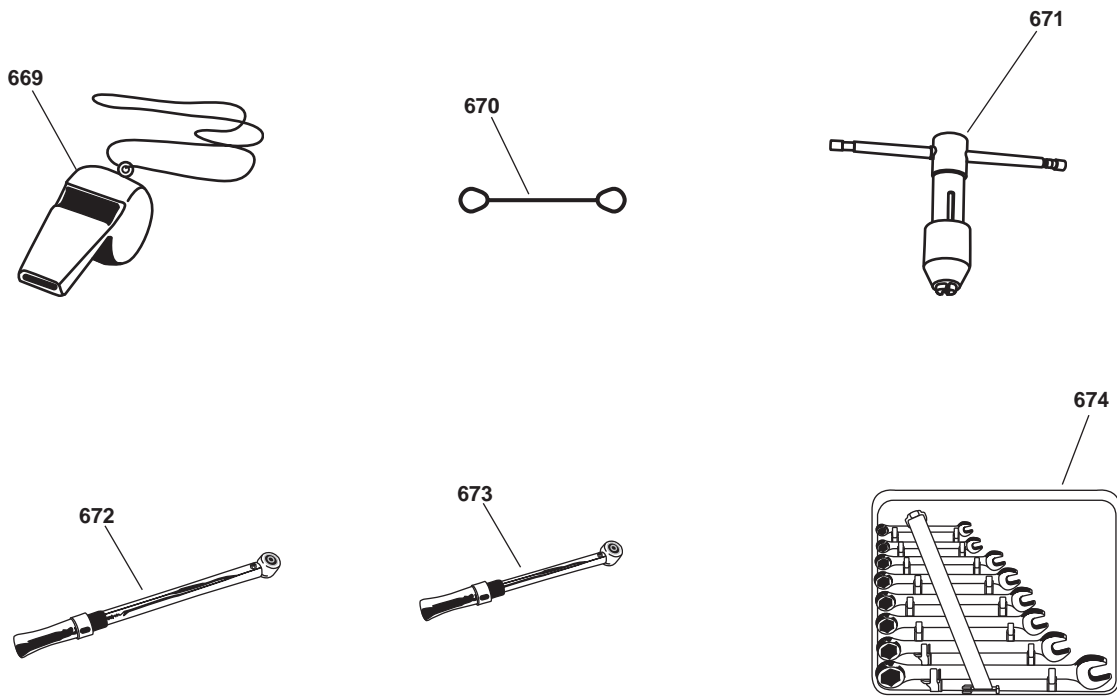


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
669	8465-00-254-8803	WHISTLE, PLASTIC, BALL WITH LANYARD LIFE. (DC Main Deck DC) (83421) 8465-00-254-8803	128	EA	62
670	4010-00-285-9901	WIRE ROPE ASSEMBLY, SINGLE LEG (Bosun's Locker) (81349) M2902-1	128	EA	7
671	5120-00-289-0539	WRENCH, TAP & REAMER, STRAIGHT HANDLE, 15-16 IN LONG, 0.164 IN TO 3/4 IN TAPS, TYPE 2, SIZE 4 (Tool Cage EOS B3) (1NEX4) 6	128	EA	1
672	5120-00-640-6365	WRENCH, TORQUE, 0-250 FT LBS, 1/2" SQ MALE DRIVE, TYPE 2, CLASS 1, STYLE A (Tool Cage EOS C1) (05047) B107.14M TY1CLBST1	128	EA	1
673	5120-00-288-8865	WRENCH, TORQUE, 0-600 IN-LB (Machine Shop) (05047) B107.14M TY1CLBST3	128	EA	1
674	5120-01-046-4979	WRENCH SET, COMB (METRIC) (Machine Shop D9) (05047) B107.100	128	SE	1

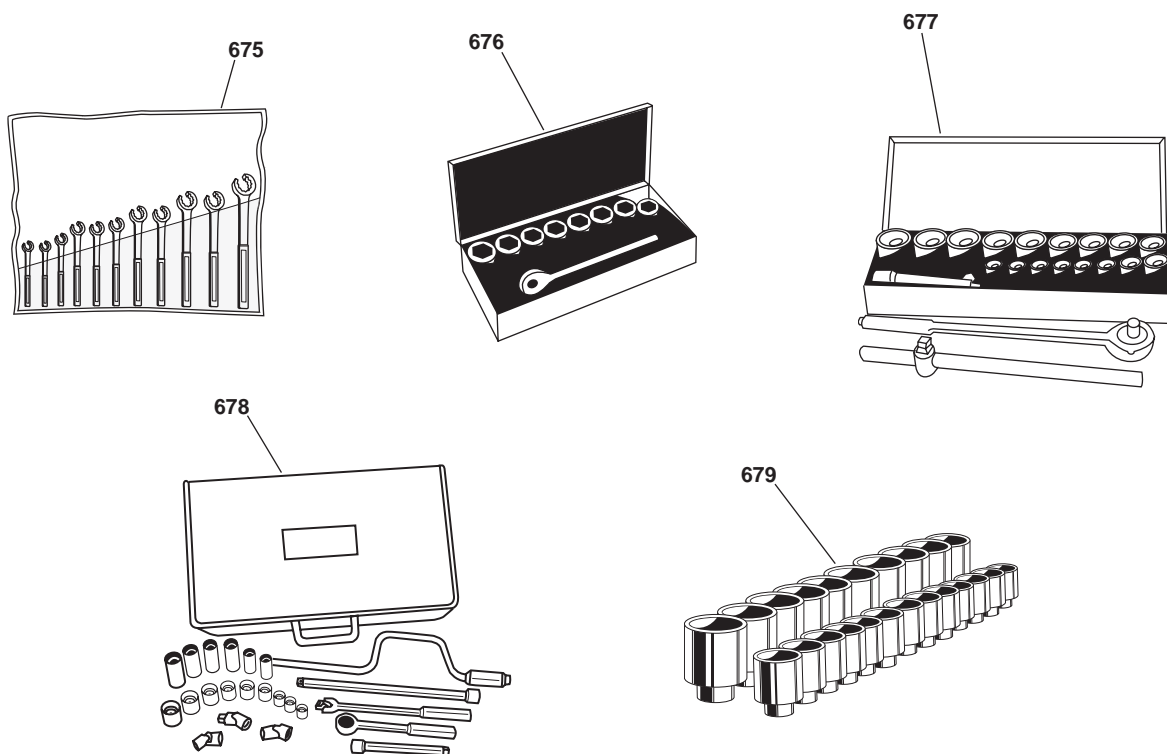


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
675	5120-00-474-7227	WRENCH SET, RATCHET, 11 WRENCHES, SIZES 3/8 IN THRU 1 IN VINYL ROLL (Machine Shop, AMS2) (80244) 5120-00-474-7227	128	SE	1
676	5120-00-081-2309	WRENCH SET, SOCKET, 1" DRIVE 12 PT, TYPE 2, CLASS 2, STYLE A (Machine Shop Cab A) (05047) B107.1	128	SE	1
677	5130-00-357-5135	WRENCH SET, SOCKET, 3/4 IN SQUARE DRIVE, 6 POINT 9/16 TO 1 1/2 IN (Paint Locker Main Deck) (05047) B107.2	128	SE	1
678	5120-00-322-6231	WRENCH SET, SOCKET, 3/8 SQUARE DRIVE 23 PIECES (Towing Gear Locker) (19207) 51200017510	128	SE	1
679	5120-00-081-2308	WRENCH SET, SOCKET, 3/4 IN SQUARE DRIVE, 12 POINT, 15/16 TO 2 3/8 IN (Machine Shop D8) (81348) GGG-W-641	128	SE	1

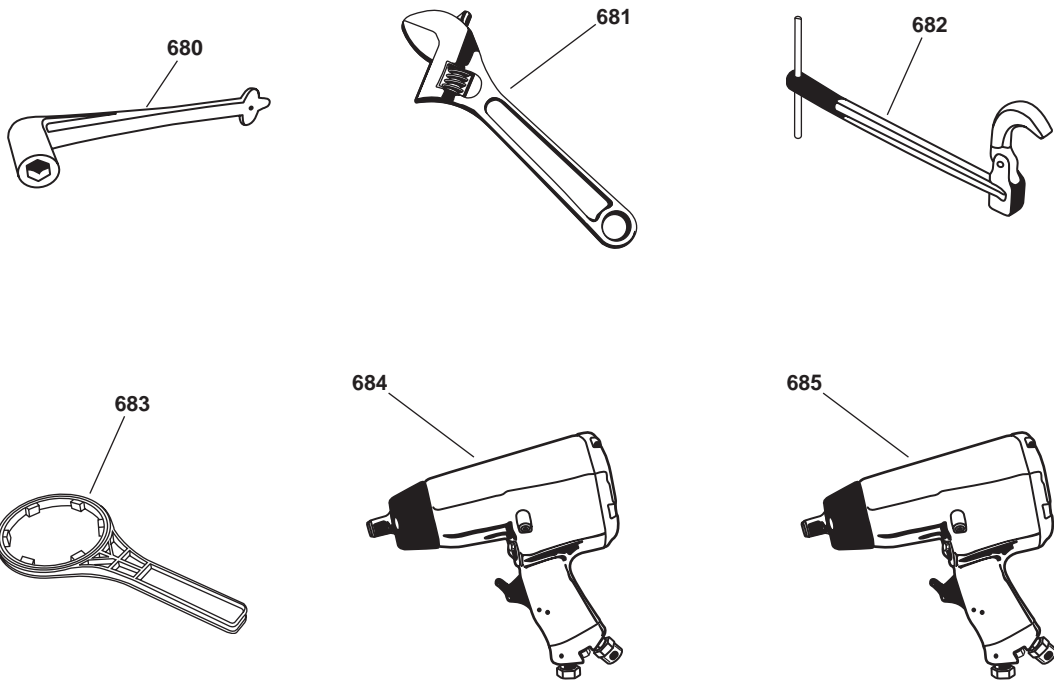


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CATEG, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
680	5120-01-274-4240	WRENCH (Machine Shop, AMS2) (32862) SK-0049	128	EA	1
681	5120-00-264-3795	WRENCH, ADJUSTABLE, 5-1/2" TO 6-1/2" JAW OPENING, SIZE 6 (DC Main Deck DD) (99993) 41W10TYPEJ	128	EA	2
682	5120-00-203-4832	WRENCH, BASIN, INTERCHANGE- ABLE JAW TYPE 7 (Machine Shop D4) (31170) 1GM921	128	EA	1
683	5120-01-348-2202	WRENCH, BOWL (Machine Shop, AMS2) (80871) 0003-3997-000	128	EA	1
684	5130-00-184-1427	WRENCH, IMPACT, PNEUMATIC, 3/4 DRIVE (Tool Cage EOS A1) (45152) 3336929	128	EA	1
685	5130-00-234-4881	WRENCH, IMPACT, PNEUMATIC, 3/8 DRIVE (Paint Locker Main Deck) (80244) 5130-00-234-4881	128	EA	1

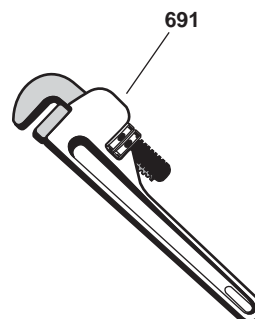
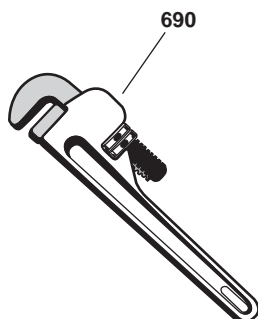
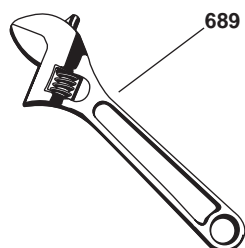
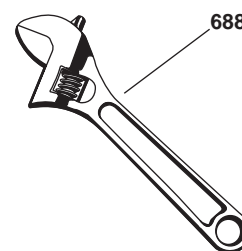
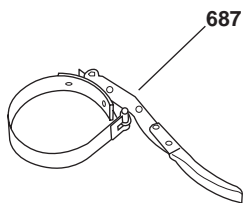
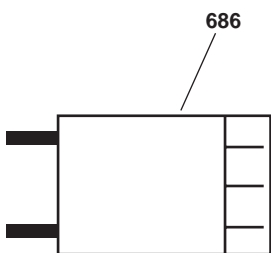


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
686	5120-01-162-2912	WRENCH, LAMP (Machine Shop, AMS2) (10741) 9871	128	EA	1
687	5120-01-262-7306	WRENCH, OIL FILTER (Machine Shop) (0B8S3) 3398145	128	EA	1
688	5120-00-264-3796	WRENCH, OPEN END, ADJUSTABLE, 11-12" TO 12-12J, 1-5/16" JAW OPENING, SIZE 12 (Towing Gear Locker) (19207) 11655778-5	128	EA	2
689	5120-00-449-8084	WRENCH, OPEN END, ADJUSTABLE, 23-1/2 TO 25" LG, 2-7/16" JAW OPENING, SIZE 24 (DC Main Deck S5) (72368) AC124	128	EA	2
690	5120-00-277-1478	WRENCH, PIPE, ADJ, HEAVY DUTY ALUMINUM HANDLE, 14" LONG, 1/2" TO 1-1/2" CAP, TYPE 2, CLASS C (Machine Shop) (81348) GGG-W-651	128	EA	2
691	5120-00-270-4310	WRENCH, PIPE, ADJ, HEAVY DUTY, 48" LONG, 5" CAP, TYPE 2, CLASS A (DC Main Deck S6) (81348) GGG-W-651	128	EA	1

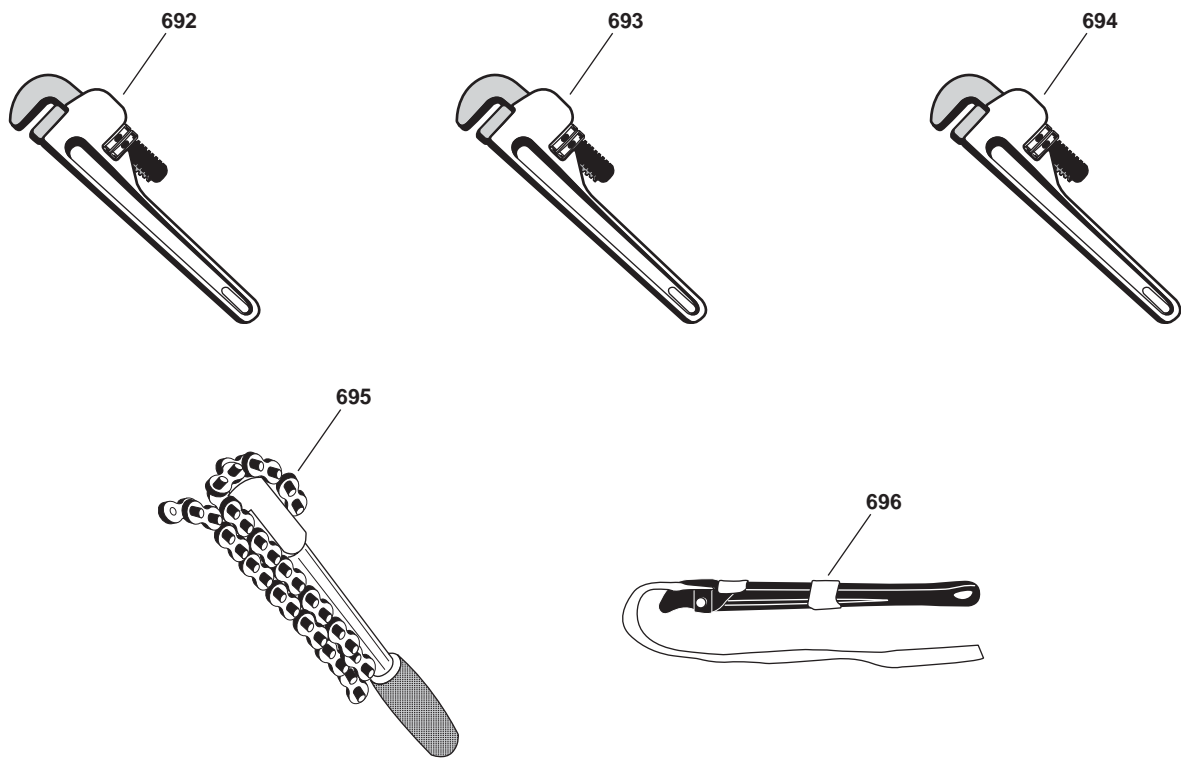


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
692	5120-00-277-1477	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 10" LONG, 1/4" TO 1" CAP, TYPE 2 CLASS C (Machine Shop Cab A) (81348) GGG-W-651	128	EA	2
693	5120-00-277-1479	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 18" LONG, 1" TO 2" CAP, TYPE 2, CLASS C (Tool Cage EOS C1) (80244) 5120-00-277-1479	128	EA	2
694	5120-00-277-1480	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 24" LONG, 1-1/2" TO 2-1/2" CAP, TYPE 2, CLASS C (Machine Shop Cab A) (81348) GGG-W-651	128	EA	2
695	5120-00-240-1411	WRENCH, PIPE, CHAIN, 3/4 TO 4 IN SIZE PIPE 32 IN LONG TYPE 3, CLASS A (Machine Shop D1) (50171) WA36	128	EA	1
696	5120-00-242-3249	WRENCH, PIPE, STRAP, 12 LONG, 1/8 IN TO 2 IN PIPE TYPE (Machine Shop D1) (50893) 2	128	EA	1

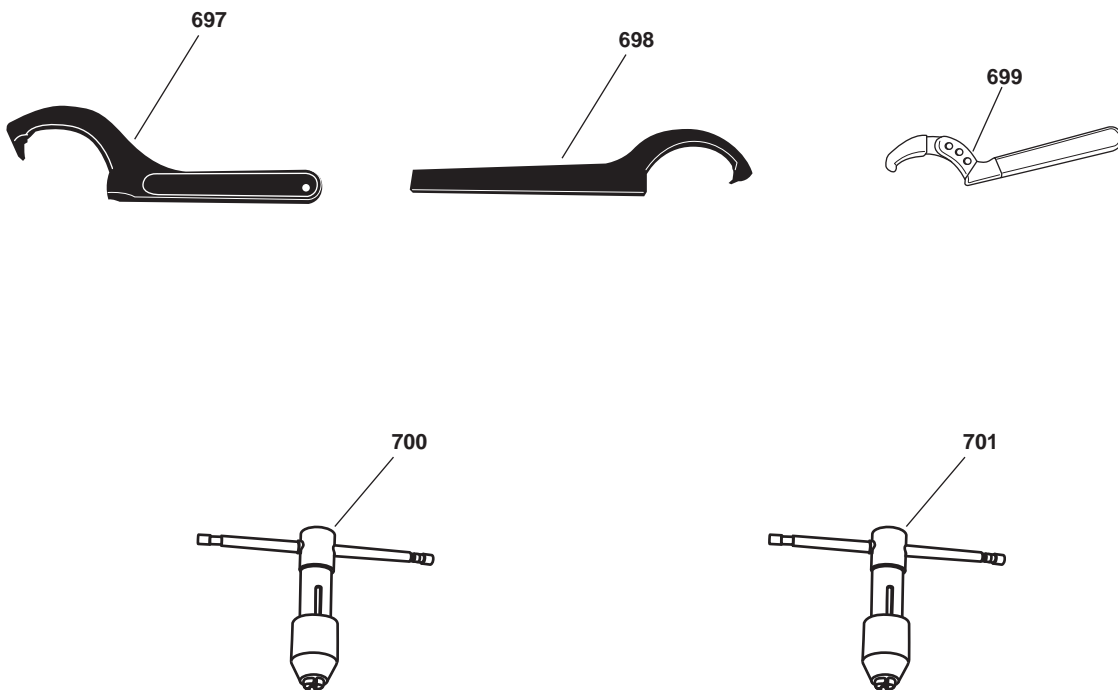


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
697	5120-00-277-9076	WRENCH, SPANNER (Machine Shop Cab A) (33287) J4749	128	EA	2
698	5120-01-348-4068	WRENCH, SPANNER (Machine Shop, AMS2) (80871) 0003-3677-000	128	EA	1
699	5120-00-293-0406	WRENCH, SPANNER, FIXED PIVOT PT, ADJUSTABLE HOOK, 1-1/4" TO 3" DIA, TYPE 1, CLASS 1 (Machine Shop Cab C) (08452) M7426529REV3PT1	128	EA	10
700	5120-00-449-8245	WRENCH, TAP & REAMER, STRAIGHT HANDLE, 25-31 IN LONG, 1/2 TO 1 1/4 IN TAPS, TYPE 2, SIZE 8 (Machine Shop D11) (1NEX4) 7-1/2	128	EA	1
701	5120-01-430-9431	WRENCH, TAP & REAMER, STRAIGHT HANDLE, 5/8 IN LONG, 1/16 TO 1/4 IN TAPS, 1/8 TO 1/4 IN REAMERS, TYPE 2, SIZE 1 (Machine Shop Cab A) (57163) 91A	128	EA	1

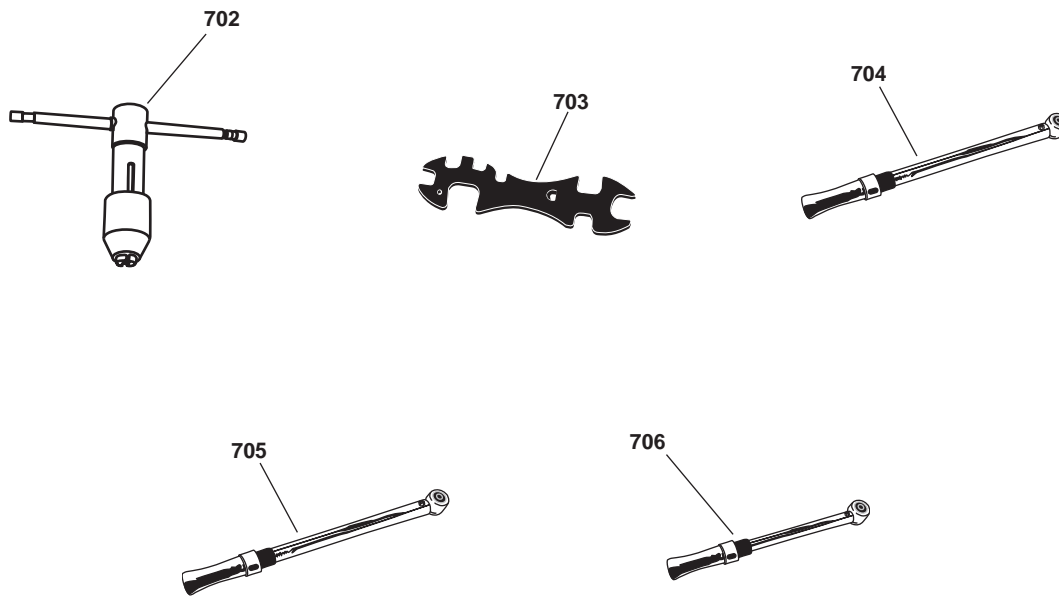


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
702	5120-00-277-4065	WRENCH, TAP & REAMER, STRAIGHT HANDLE, HAND REAMER, 1/2-1 IN TAPS, 3/8-1/2 IN REAMERS, TYPE 2, SIZE 7 (Machine Shop Cab A) (OFL68) EV51-7	128	EA	1
703	5120-00-494-1929	WRENCH, TORCH & REG 6 WRENCHES 8-5/8 IN LONG, SIZES 7/16 IN THRU 1 IN (Machine Shop Cab A) (80382) 809-0028	128	EA	1
704	5120-00-555-1521	WRENCH, TORQUE, 0-1000 FT LB (Machine Shop, AMS2) (55719) TQ1003A	128	EA	1
705	5120-00-221-7981	WRENCH, TORQUE, 1 1/2 IN DR, 0-2000 FT LBS, TYPE 2, CLASS 2, STYLE B (Machine Shop D4) (55719) TEX2005TL	128	EA	1
706	5120-01-396-6072	WRENCH, TORQUE, 100-500 FT LB (Machine Shop, AMS2) (05047) B107.14M TY2CLAST1DEB	128	EA	1

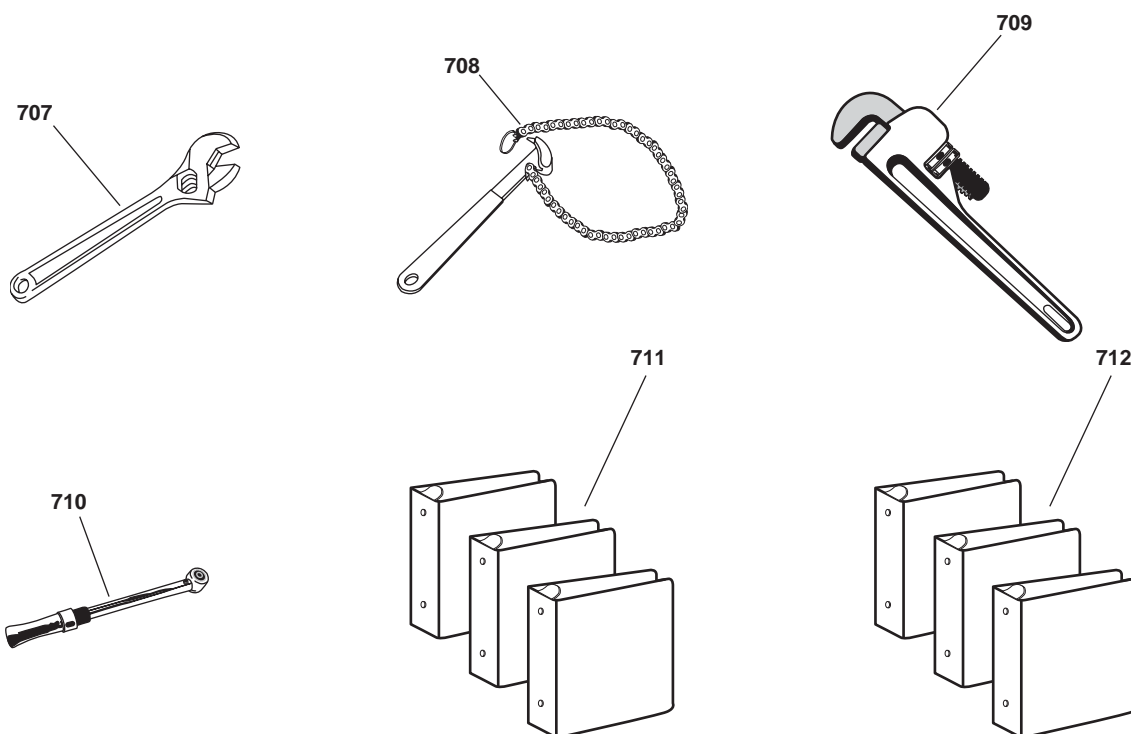


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
707	5120-00-449-8083	WRENCH, ADJUSTABLE, 9-1/2 TO 10-1/2" LG, 1-1/8" JAW OPENING, SIZE 10 (Bosuns Store Room S28) (11083) 1B7536	128	EA	2
708	5120-01-081-1922	WRENCH, OIL FILTER (DC Locker VIDMAR) (11083) 2P8250	128	EA	1
709	5120-00-277-1481	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 36" LONG, 2-1/2 TO 3-1/2 CAP, TYPE 2, CLASS C (Machine Shop Cab A) (81348) GGG-W-651	128	EA	2
710	5120-00-221-7983	WRENCH, TORQUE, 3/4" DR, 0 TO 600 FT LBS, TYPE 2, CLASS 1 (Machine Shop, AMS2) (10001) SW130-301	128	EA	1
711		TM 55-1900-5830-283-10, LARGE TUG GMDSS	128	EA	2
712		TM 55-1925-208-24, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL, MAIN PROPULSION ENGINE FOR LARGE TUG (LT)	128	EA	3



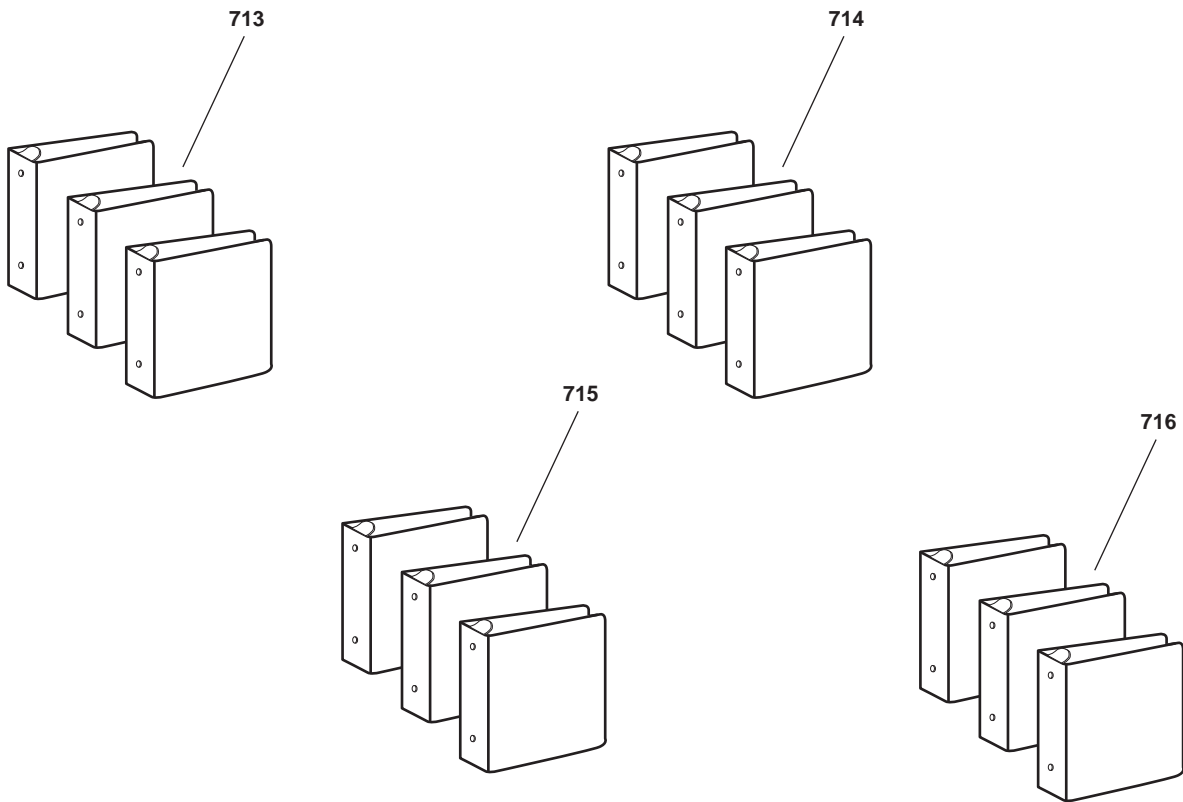


Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
713		TM 55-1925-208-24P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST, MAIN PROPULSION ENGINE FOR LARGE TUG (LT)	128	EA	3
714		TM 55-1925-209-24-1, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL, SHIP'S SERVICE GENERATOR FOR LARGE TUG (LT)	128	EA	3
715		TM 55-1925-209-24-2, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL, SHIP'S SERVICE GENERATOR FOR LARGE TUG (LT)	128	EA	3
716		TM 55-1925-209-24P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT REPAIR PARTS AND SPECIAL TOOLS LIST, SHIP'S SERVICE GENERATOR FOR LARGE TUG (LT)	128	EA	3

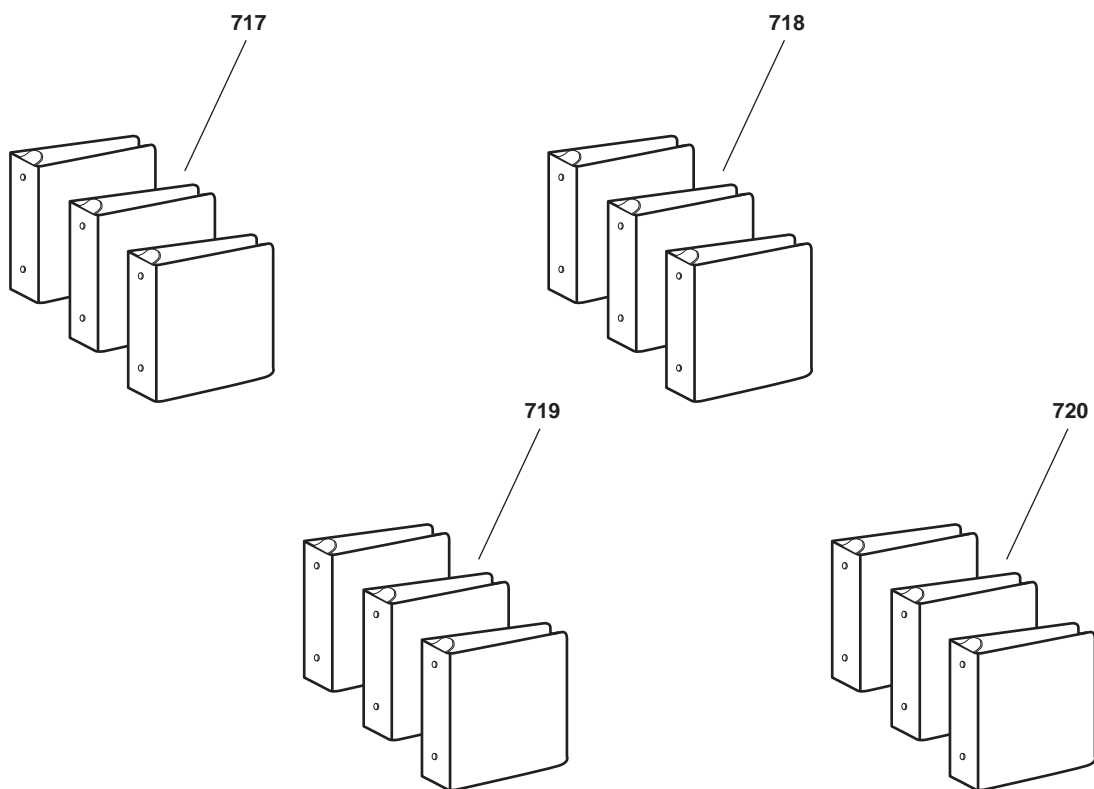
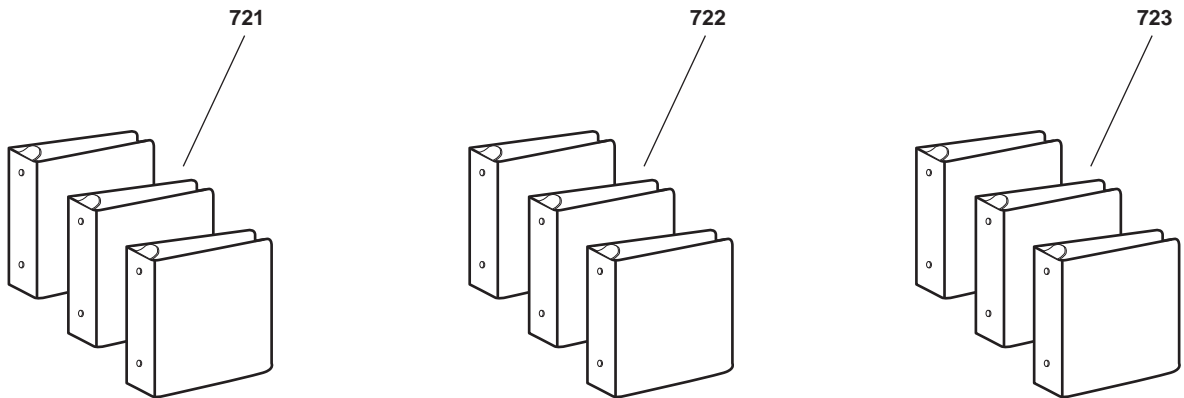


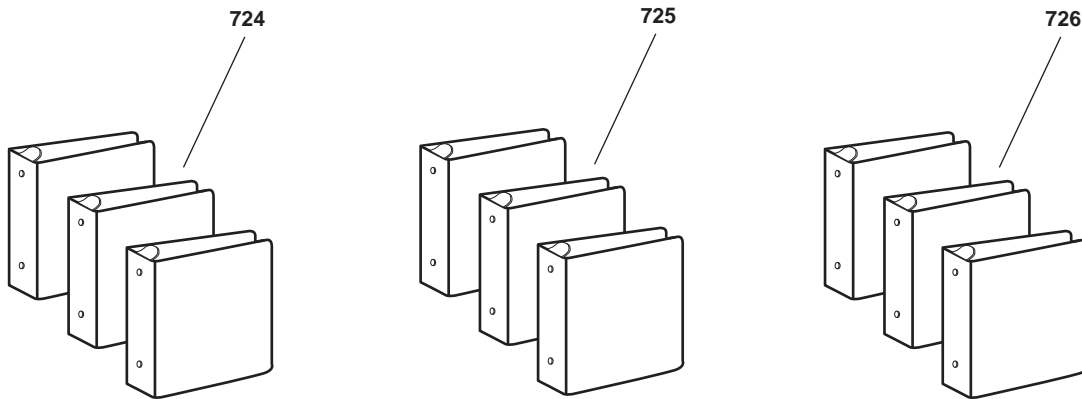
Table 3. Basic Issue Item List (continued)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
717		TM 55-1925-210-24, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL, EMERGENCY GENERATOR SET FOR LARGE TUG (LT)	128	EA	3
718		TM 55-1925-210-24P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST, EMERGENCY GENERATOR SET FOR LARGE TUG (LT)	128	EA	3
719		TM 55-1925-211-24, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL, PUMP DRIVE ENGINE, FOR LARGE TUG (LT)	128	EA	3
720		TM 55-1925-211-24P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST, PUMP DRIVE ENGINE FOR LARGE TUG (LT)	128	EA	3



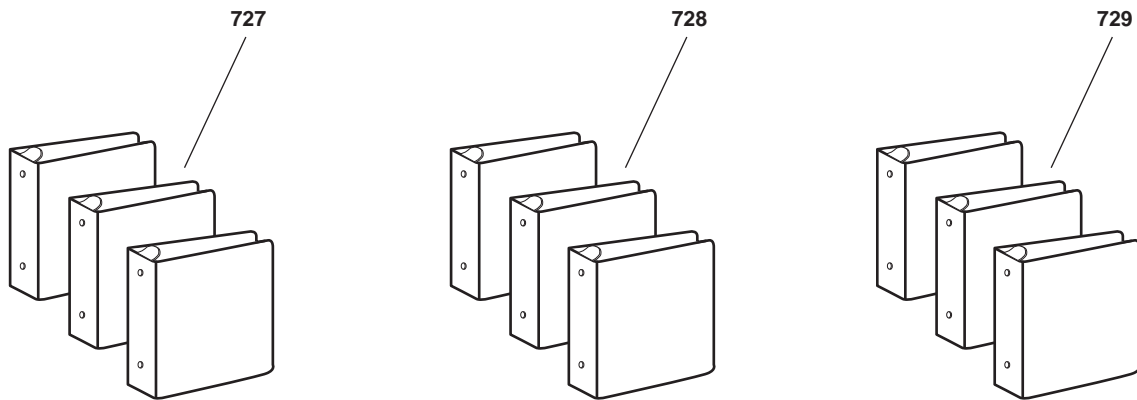
**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
721		TM 55-1925-212-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), BOW THRUSTER ENGINE FOR LARGE TUG (LT)	128	EA	3
722		TM 55-1925-213-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), LUBRICATION OIL PURIFICATION SYSTEM FOR LARGE TUG (LT)	128	EA	3
723		TM 55-1925-214-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), BOW THRUSTER FOR LARGE TUG (LT)	128	EA	3



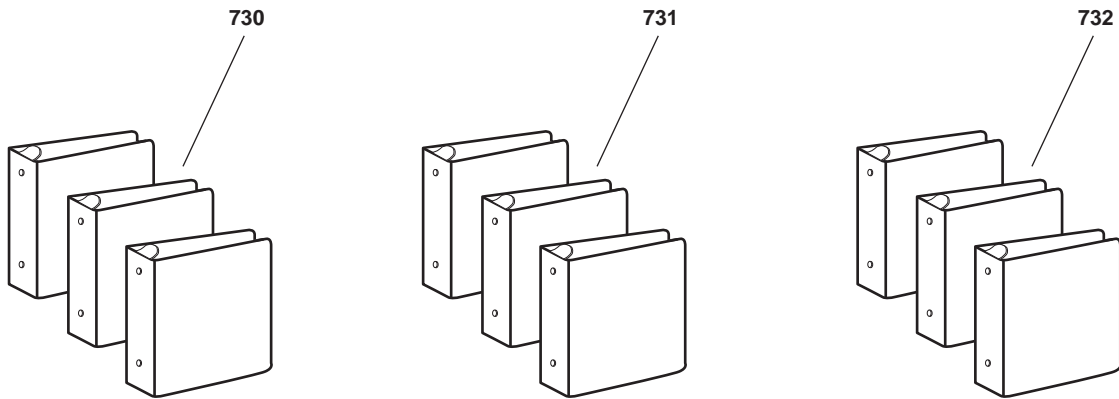
**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
724		TM 55-1925-215-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), STEERING GEAR SYSTEM FOR LARGE TUG (LT)	128	EA	3
725		TM 55-1925-222-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), PROPULSION CONTROLS FOR LARGE TUG (LT)	128	EA	3
726		TM 55-1925-223-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), MAIN REDUCTION GEAR FOR LARGE TUG (LT)	128	EA	3



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
727		TM 55-1925-224-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), ENVIRONMENTAL CONTROL SUBSYSTEM FOR LARGE TUG (LT)	128	EA	3
728		TM 55-1925-225-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST, ENGINE ROOM MONITORING SYSTEM FOR LARGE TUG (LT)	128	EA	3
729		TM 55-1925-226-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST, COMMISSARY EQUIPMENT FOR LARGE TUG (LT)	128	EA	3



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
730		TM 55-1925-228-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), PROPULSION SHAFT COUPLINGS, BRAKES, AND SEALS FOR LARGE TUG (LT)	128	EA	3
730		TM 55-1925-231-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST, REFRIGERATION MACHINERY FOR LARGE TUG (LT)	128	EA	3
732		TM 55-1925-233-24&P, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST), LAUNDRY EQUIPMENT FOR LARGE TUG (LT)	128	EA	3

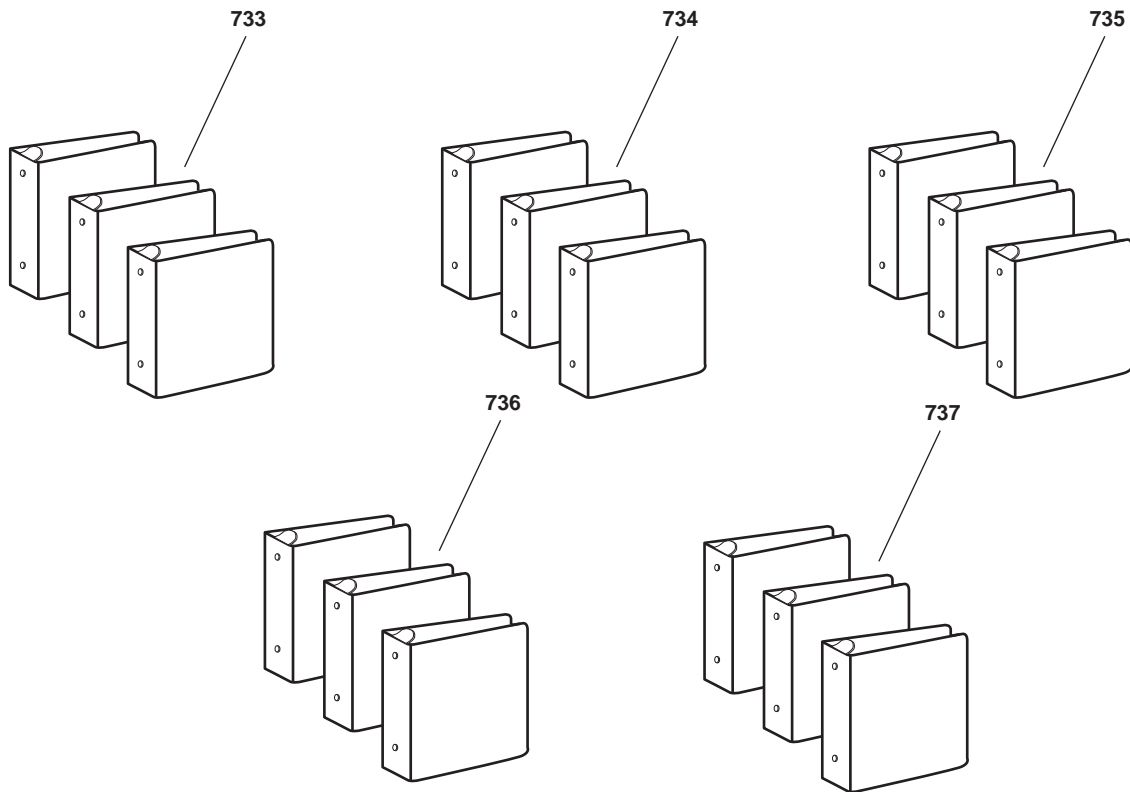
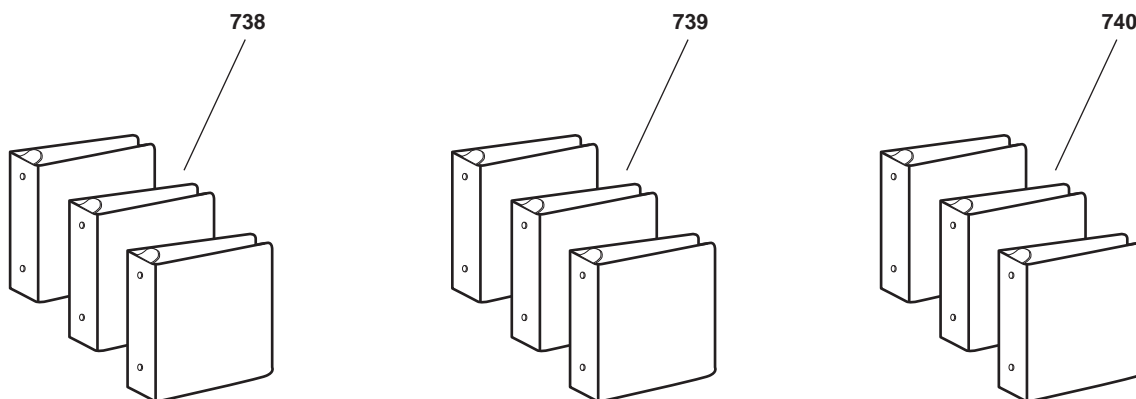


Table 3. Basic Issue Item List (continued)

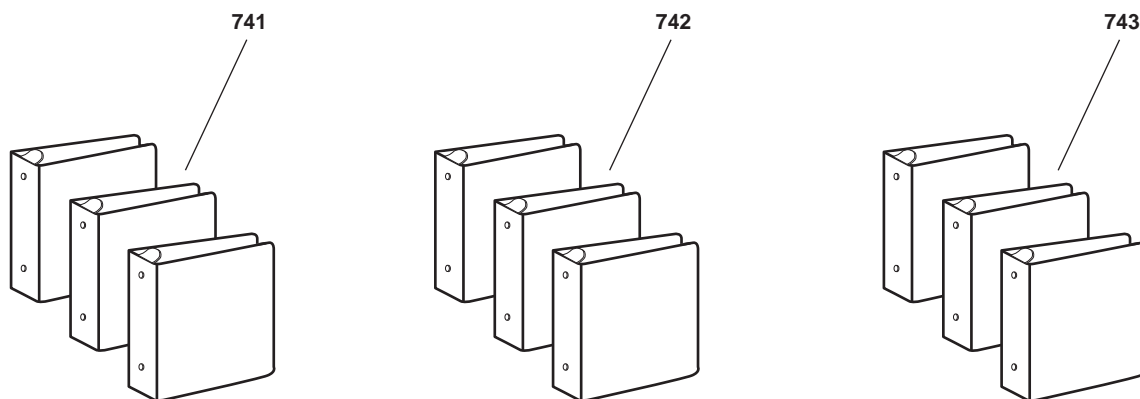
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
733		TM 55-1925-273-10-1, OPERATORS MANUAL FOR INLAND AND COASTAL LARGE TUG	128	EA	3
734		TM 55-1925-273-10-2, OPERATORS MANUAL FOR INLAND AND COASTAL LARGE TUG	128	EA	3
735		TM 55-1925-273-24&P-1, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR INLAND AND COASTAL LARGE TUG	128	EA	3
736		TM 55-1925-273-24&P-2, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR INLAND AND COASTAL LARGE TUG	128	EA	3
737		TM 55-1925-273-SDC, SHIPBOARD DAMAGE CONTROL MANUAL, INLAND AND COASTAL LARGE TUG	128	EA	3



**Table 3. Basic Issue Item List (continued)**

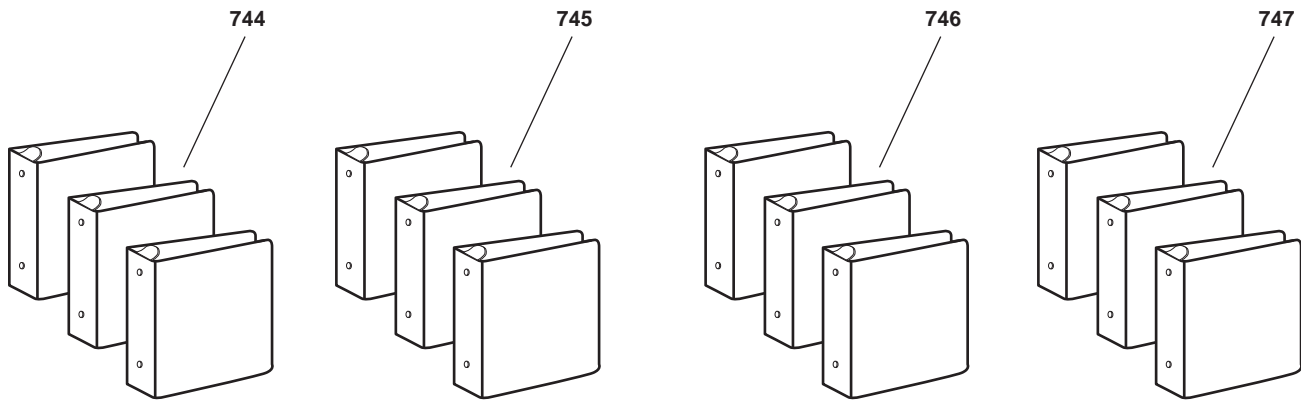
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
738		TM 55-1925-282-14&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR REVERSE OSMOSIS WATER PURIFICATION UNIT FOR INLAND AND COASTAL LARGE TUG	128	EA	3
739		TM 55-1925-283-12&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR FUEL FILTER/WATER SEPARATOR (FUEL TRANSFER SYSTEM) FOR INLAND AND COASTAL LARGE TUG	128	EA	3
740		TM 55-1925-284-14&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR MARINE SANITATION DEVICE FOR INLAND AND COASTAL LARGE TUG	128	EA	3





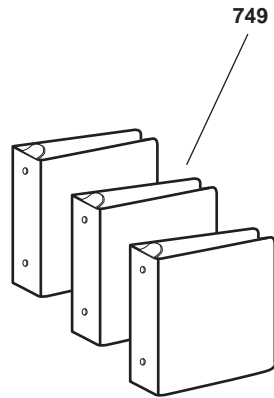
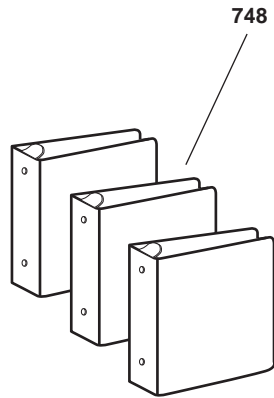
**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
741		TM 55-1925-285-13&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR OIL WATER SEPARATOR FOR INLAND AND COASTAL LARGE TUG	128	EA	3
742		TM 55-1925-286-13&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR AIR COMPRESSOR FOR INLAND AND COASTAL LARGE TUG	128	EA	3
743		TM 55-1925-292-14&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR FIREFIGHTING, FIRE ALARM, AND FIRE SUPPRESSION SYSTEMS FOR INLAND AND COASTAL LARGE TUG	128	EA	3



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
744		TM 55-1925-294-24&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR DECK MACHINERY FOR INLAND AND COASTAL LARGE TUG	128	EA	3
745		TM 55-1945-224-14&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR BOAT,INFLATABLE, RIGID HULL (ZODIAC) MODEL M-B-10005 H472	128	EA	3
746		TM 55-5825-311-10, OPERATORS'S MANUAL FOR LARGE TUG C4ISR SUITE	128	EA	3
747		TM 55-1945-221-14&P, OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR OUTBOARD MOTOR (JOHNSON-OMC) MODEL #70	128	EA	3



**Table 3. Basic Issue Item List (continued)**

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/I	(6) QTY RQR
748		TM 55-5825-311-10, INTEGRATED BRIDGE SYSTEM	128	EA	3
749		TM 11-5830-258-14, OPERATOR'S, ORGANIZATIONAL, DIRECT	128	EA	3

END OF WORK PACKAGE



**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
ADDITIONAL AUTHORIZATION LIST**

**INTRODUCTION**

**SCOPE**

This work package lists additional items you are authorized for the support of the Inland and Coastal Large Tug (LT).

**GENERAL**

This list identifies items that do not have to accompany the LT and that do not have to be turned in with it. These items are authorized to you by CTA, MTOE, TDA, or JTA.

**EXPLANATION OF COLUMNS IN THE AAL**

Column (1) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (in parentheses) and the part number.

Column (3) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (4) Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (1).

Column (5) Qty Recm. Indicates the quantity recommended.

**ADDITIONAL AUTHORIZED LIST ITEMS**

**Table 1. Additional Authorization List**

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/I	(5) QTY RECM
5895-01-442-3737	AIRBORNE DATA CONTROL UNIT, VDC-300 (Radio Equipment Rack #1) (47358), SI-006329-0000	128	EA	1
	AMPLIFIER, POWER AM-7175D (Radio Equipment Rack #1) (94900) 01-P09986V004	128	EA	2
	CHARGER, DESKTOP, MULTI-UNIT (Pilothouse) (62526) BC-121N	128	EA	1
	CONTROL, INTERCOMMUNICATION SET FFCS (Radio Equipment Rack #2 & Pilothouse VIC Station) (26512) C-12357/VRC	128	EA	2
	DC/DC MODULE (Pilothouse Steering Stand) (52315) NB 03-942	128	EA	1

Table 1. Additional Authorization List (continued)

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/I	(5) QTY RECM
5965-01-461-5441	HANDSET H250 (Radio Equipment Rack #2 & Pilothouse VIC Station) (14304) 10075-1399-01	128	EA	2
	IFF (Radio Equipment Rack #1) (80058) RT859A/APX-72 RX/TX	128	EA	1
	INMARSAT C ANTENNA (Top of Mast) SEA 6002AH	128	EA	1
	INMARSAT C TRANSCEIVER (Radio Equipment Rack #3) SEASAT 2	128	EA	1
1005-00-322-9715	MACHINE GUN, CALIBER .50 (Arms Locker) (19204) 8401485	128	EA	2
	MAGNETIC COMPASS (Top of Pilothouse) (54121) MODEL "AMERICAN" NO P/N ASSIGNED	128	EA	1
	POWER AMP (Radio Equipment Rack #2) (14304) RF5834H-PA-400	128	EA	1
6130-01-370-3698	POWER SUPPLY (Radio Equipment Rack #2) (14304) 10181-6044	128	EA	1
	POWER SUPPLY, 115VAC, 12VDC (Pilothouse, GMDSS Equipment) (NEWMAR) 115-12-35A	128	EA	1
	POWER SUPPLY, 115VAC, 12VDC (Pilothouse, GMDSS Equipment) (STEED) 115-12-7	128	EA	1
	POWER SUPPLY, 115VAC, 12VDC (Pilothouse, GMDSS Equipment) (NEWMAR) 115-12-7	128	EA	2
5820-01-44-7004	RADIO SET, UHF XMTR LST-5D (Radio Equipment Rack #1) (94990) 01-P34110J100	128	EA	2
5820-01-435-9288	RCVR-XMTR, RAD, VHF MARINE HANDHELD (Pilothouse) (62526) IC-M15	128	EA	10
5820-01-496-3523	RECEIVER/TRANSMITTER, RADIO, HF (Radio Equipment Rack #1) (14304) ON67	128	EA	1
	RECEIVER/TRANSMITTER, RT-1796, PRC-103 (Radio Equipment Rack #1) (14304) 10513-1000-03	128	EA	2
	RF TRANSCIEVER (Radio Equipment Rack #3) (00853) TT-3038C	128	EA	1

Table 1. Additional Authorization List (continued)

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/I	(5) QTY RECM
	RUDDER POSITION AMPLIFER (Pilothouse) (52315) 139-147 E03	128	EA	1
	SCRAMBLER UNIT/IC-M15 (Pilothouse) (62526) UT-79	128	EA	10
	SECURE FAX, TS-21 W/SHOCK MOUNT (Radio Equipment Rack#3) (O9JM1), 2194A	128	EA	1
	SECURE PHONE (Radio Equipment Rack #2) (NO CAGE) STU III	128	EA	1
	SWITCH UNIT, VOICE DATA (Radio Equipment Rack #2) (0JDM6) 98-200977	128	EA	1
	TEST SET, TS-1843A/APX (Radio Equipment Rack #1) (80058) NO P/N	128	EA	1
	UNINTERRUPTED POWER SUPPLY (UPS) (Radio Equipment Rack #3) (0JDM6) SU1400RM2U	128	EA	1

END OF WORK PACKAGE





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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
EXPENDABLE AND DURABLE ITEMS LIST**

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## INTRODUCTION

### SCOPE

This work package lists expendable and durable items that you will need to operate and maintain the Inland and Coastal Large Tug (LT). This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

### EXPLANATION OF COLUMNS IN THE EXPENDABLE/DURABLE ITEMS LIST

Column (1) Item Number. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., "Use brake fluid (item 5, WP 0098 00).").

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (include as applicable: C = Operator/Crew, O = Unit, F = Direct Support, H = General Support, D = Depot).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item, which you can use to requisition it.

Column (4) Item Name, Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5) Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (3).

Table 1. Expendable and Durable Items List

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
1	O	6830-00-264-6751	ACETYLENE, TECHNICAL (81348) BB-A-106-B	CY
2	O	1365-01-359-7102	AEROSOL SMOKE, 2.5 OZ AEROSOL CAN (61908) 25S, ES400	EA
3	O	6850-01-441-3218	ANTIFREEZE (58536) A-A-52624	GL
4	C	8105-01-183-9764	BAG, PLASTIC (58536) 8105-01-183-9764	BX
5	C	8105-00-655-8285	BAG, PLASTIC, DISPOSABLE LINER POLY (58536) 8105-00-655-8285	BX
6	C	8105-01-183-9769	BAG, PLASTIC, DISPOSABLE LINER POLY (58536) 8105-01-183-9769	BX
7	C	8105-01-070-0721	BAG, POLY, SIZED TO FIT TRASH COMPACTOR (53820) 1600 POLY BAG	EA
8	C	7520-00-935-7135	BALLPOINT PEN, BLACK INK, FINE POINT (83421) 7520-00-935-7135	DZ
9	O	7520-00-281-5911	BASKET, WASTE PAPER, ROUND, GRAY, METAL (88001) C1060C	EA
10	O	6135-00-835-7210	BATTERY, NONRECHARGEABLE, SIZE D, ALKALINE (83740) E95	PG
11	O	6140-00-195-5339	BATTERY, STORAGE, 12 VOLT (1SWJ4) 6V155	EA
12	O	5110-00-277-4590	BLADES, HAND, HACKSAW, HIGH-SPEED STEEL, 12 IN LONG, 18 TEETH PER INCH, TYPE 1, CLASS 2, GRADE A, BD-10-EA (05047) B94.52M	EA
13	O	5110-00-277-4591	BLADES, HAND, HACKSAW, HIGH-SPEED STEEL, 12 IN LONG, 24 TEETH PER INCH, BD-10-EA (05047) B94.52M	EA
14	C	7920-00-267-2967	BROOM, PUSH, RATTAN, (NO HANDLE) (83421) 7920-00-267-2967	EA
15	C	7920-00-291-8305	BROOM, UPRIGHT, CORN, HANDLE NOT DETACHABLE (83421) 7920-00-291-8305	EA
16	C	7920-00-240-6358	BRUSH, DUSTING, BAKERY, TYPE 1, CLASS 2 (80244) 7920-00-240-6358	EA
17	C	7920-00-165-7277	BRUSH, DUSTING, BEN, LACQUERED BLOCK HANDLE (45092) 378	EA
18	C	7920-00-240-6357	BRUSH, DUSTING, BENCH (18702) 705-9	EA
19	C	8020-00-559-0438	BRUSH, PAINT, 1 IN (58536) A-A-3193	EA
20	C	8020-00-559-0389	BRUSH, PAINT, 2 IN (58536) A-A-3193	EA
21	C	8020-00-178-8305	BRUSH, PAINT, 4 IN (58536) A-A-3192	EA

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
22	C	8020-00-597-4770	BRUSH, PAINT, MEDIUM GRADE, NYLON BRISTLE (58536) A-A-3192	EA
23	C	7920-00-772-5800	BRUSH, SANITARY, TYPE I CLASS 2 DUTY A (83421) 7920-00-772-5800	EA
24	C	7920-00-240-7171	BRUSH, SCRUB, DECK, NO HANDLE (80244) 7920-00-240-7171	EA
25	C	7920-00-240-7174	BRUSH, SCRUB, FLOOR, HAND, 1-3/4" X 6" (80244) 7920-00-240-7174	EA
26	C	7520-00-223-8000	BRUSH, STENCIL, 3/4 IN X 1 IN (45606) 70107	EA
27	O	7920-00-291-5815	BRUSH, WIRE, CURVED HANDLE (83421) 7920-00-291-5815	EA
28	O	5130-00-293-0263	BRUSH, WIRE, ROTARY WHEEL, 1/2 IN ARBOR (17699) 5130-00-293-0263	EA
29	O	7920-00-246-8501	BRUSH, WIRE, SCRATCH, 7 1/2 IN X 2 1/4 IN (83421) 7920-00-246-8501	EA
30	O	7240-00-160-0441	CAN, ASH, AND GARBAGE, W/O COVER 24 (0T115) 90124HDC	EA
31	O	7240-00-160-0440	CAN, GARBAGE, W/O COVER, 32 GL (0T115) 90146HDC	EA
32	C	8415-00-121-5830	CAP, FOOD HANDLERS, WHITE DISPOSABLE (3F842) C100	BX
33	O	8415-00-634-2410	CAP, FOOD HANDLER'S, WHITE (80244) 8415-00-634-2410	BX
34	C	9150-01-193-6376	CLEANER, LUBRICATION PRESERVATIVE (MACH GUN MT) (65983) CLP-9ME	EA
35	O	6850-01-493-8360	CLEANING COMPOUND, ACID, PIPELINE (1BZ02) B645800002	EA
36	O	6850-01-493-8354	CLEANING COMPOUND, ALKALI, FERROUS SURFACE (1BZ02) B645800001	EA
37	C	6850-00-285-8011	CLEANING COMPOUND, SOLVENT (58536) AA59601-2G	DR
38	C	7520-00-240-5503	CLIPBOARD, FILE, 9 X 17" (83421) 7520-00-240-5503	EA
39	F	5350-00-221-0872	CLOTH, ABRASIVE (CROCUS CLOTH) (76381) 051144-02435	PG
40	O	8030-00-251-3980	COMPOUND, ANTISEIZE (26916) 034-000750	LB
41	C	8030-00-231-2345	COMPOUND, CORROSION PREVENTIVE (19203) 945011	GL
42	C	8020-00-664-3657	CONDITIONER, PAINT BRUSH (00343) PROTEXEMBRUSHCONDITIONER	EA
43	C	4020-00-240-2164	CORD, COTTON, 1/4 IN 200 FT COIL (81349) MILL1145	CL
44	C	4020-00-240-2160	CORD, COTTON, 5/16 IN 1200 FT COIL (81348) TC571	CL

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
45	O	7240-00-161-1147	COVER, ASH AND GARBAGE CAN, 24 GL (0T115) 90124HDL	EA
46	O	7240-00-161-1143	COVER, ASH AND GARBAGE CAN, 32 GL (0T115) 90146HDL	EA
47	O	7290-00-130-3271	COVER, IRONING BOARD, 16 X 54" HEAT RESISTANT (83421) 7290-00-130-3271	EA
48	C	7930-00-926-5280	DETERGENT, GENERAL PURPOSE (80244) 7930-00-926-5280	BX
49	C	7930-00-985-6911	DETERGENT, GENERAL PURPOSE (83421) 7930-00-985-6911	CN
50	C	7930-00-880-4454	DISHWASHING COMPOUND, HAND, LIQUID, 1 GAL (83421) 7930-00-880-4454	BX
51	C	7930-00-985-6905	DISHWASHING COMPOUND, MACHINE, 25 LB DRUM (80244) 7930-00-985-6905	EA
52	C	6840-00-810-6396	DISINFECTANT, FOOD SERVICE POWDER, TWELVE 4.77 OZ POUCHES PER BOX (81349) MIL-D-11309	BX
53	C	5345-00-881-8377	DISK, ABRASIVE, NO 36 GRIT SIZE, CLOSED COAT (80204) ANSI B74.18	BX
54	C	5345-00-881-8378	DISK, ABRASIVE, NO. 24 GRIT SIZE, CLOSED COAT (80204) ANSI B74.18	EA
55	C	5345-00-881-8375	DISK, ABRASIVE, NO. 60 GRIT SIZE, CLOSED COAT, 1/2 IN ARBOR (80204) ANSI B74.18	EA
56	O	6810-01-070-1784	DISTILLED WATER, TECHNICAL (53390) 6170-18-7	BT
57	C	6850-00-281-1985	DRY CLEANING SOLVENT (02978) PS661	GL
58	O	3439-00-262-2670	ELECTRODE, WELDING, 6010, 1 X 14 (31505) AWSA5.1-78 E6010 0.125	CO
59	O	3439-00-262-2652	ELECTRODE, WELDING, 6011, 3/32 X 12 (31505) AWSA5.1-69 E6011 0.093	LB
60	O	3439-00-853-2719	ELECTRODE, WELDING, 7018, 3/16 X 14, CN = 50 LBS (31505) AWSA5.5-81	CN
61	O	7310-00-512-1076	FILTER, COFFEE MAKER (25628) 20115.0000	MX
62	C	7930-01-184-3905	FINISH, FLOOR, NONBUFFING (80244) 7930-01-184-3905	GL
63	O	3439-01-236-9572	FLUX, SOLDERING (27911) 40026	CN
64	O	3439-00-255-4571	FLUX, SOLDERING (58536) A-A-51145	CN

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
65	O	3439-00-255-4580	FLUX, WELDING (94030) 1	LB
66	C	4210-01-056-8343	FOAM, LIQUID, AFFF, 5 GAL (81349) MIL-F-24385	CN
67	C	7930-00-664-6910	GLASS CLEANER, TYPE 1, CLASS 1 (83421) 7930-00-664-6910	BX
68	O	9150-00-944-8953	GREASE, AIRCRAFT (54527) AEROSHELLGREASE22	CN
69	O	9150-01-197-7689	GREASE, AUTO AND ARTILLERY, 6 1/2 LBS, SYMBOL GAA (81349) M-10924-D	CN
70	O	9450-00-526-4205	GREASE, BALL AND ROLLER BEARING (81349) MIL-G-187-09	CN
71	O	9150-01-117-2928	GREASE, BALL AND ROLLER BEARING, 5 LB (81349) DOD-G-24508	CN
72	O	9150-00-663-9795	GREASE, BALL AND ROLLER BEARING, 6.5 LBS CAN (81349) MIL-G-18709	CN
73	O	9150-01-095-5512	GREASE, BALL AND ROLLER, CN (73219) L0189.001	CN
74	C	9150-01-209-6868	GREASE, FOOD PROCESSING EQUIPMENT (81349) DOD-G-24650	LB
75	O	9150-00-180-6381	GREASE, GENERAL PURPOSE (81349) MIL-PRF-24139	CN
76	O	9150-00-235-5555	GREASE, GENERAL PURPOSE, CN, 6.5 LBS GGP (07950) ROYCO 49	CN
77	O	9150-00-180-6382	GREASE, MBG, CN, 6-1/2 LB (81349) MIL-PRF-24139	CN
78	O	9150-01-525-1498	GREASE, POLYUREA, ELECTRIC MOTOR (29700) MOBIL POLYREX 14-EM OZ	CN
79	C	9150-00-530-6814	GREASE, WIRE ROPE-EXPOSED GEAR, 35 LB CAN (81349) MIL-PRF-18458	CN
80	C	4020-00-240-2161	HALYARD, COTTON BRAIDED, 2400 FT ROLL, 1/4 IN DI (81349) MILH226	RL
81	C	7920-00-267-1218	HANDLE, MOP, WOOD, 54" LG (83421) 7920-00-267-1218	EA
82	C	7920-00-141-5452	HANDLE, WOOD, FOR USE WITH RATTAN PUSHBROOM (83421) 7920-00-141-5452	EA
83	O		HARDENER, CEILCOAT (16605) FLAKETAR 661	GL
84	C	7230-00-252-3394	HOOK, SHOWER CURTAIN SUSPENSION, 100 PER BOX (26821) L946	BX
85	O		HOSE, BRAIDED, CLEAR, 1/2" (30 FEET) (05MH3) KURI13130C1/2	FT

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
86	O		HOSE, BRAIDED, CLEAR, 3/4 (20 FEET) (05MH3) KURI3130D3/4	FT
87	O		HOSE, HP, -6 (25 FEET) (05MH3) STO6-6 DAYCO	FT
88	C	9150-00-985-7234	HYDRAULIC FLUID, CN, 5 GAL (81349) MIL-PRF-17672	CN
89	C	9150-00-111-6256	HYDRAULIC FLUID, FIRE RESISTANT (81349) MIL-PRF-46170	GL
90	C	9150-00-985-7233	HYDRAULIC FLUID, PETROLEUM BASE, 55 GAL (58563) IMPERIAL 2075	DR
91	C	6810-00-983-8551	ISOPROPYL ALCOHOL, TECHNICAL (81348) TT-I-735	QT
92	O	6850-01-015-0834	LAYOUT DYE (59581) 837745-16358	CN
93	O	8010-00-239-5737	LEAD, WHITE, PIGMENT, PAINT PRODUCTS, PASTE IN OIL, 5 LB (81348) TT-W-215	CN
94	C	9150-01-469-7264	LUBRICANT, SILICONE (75906) W46040-111	TU
95	O	9150-00-186-6681	LUBRICATING OIL (81349) M2104-1-30W	QT
96	O	9150-01-158-2881	LUBRICATING OIL, AIR COMPRESSOR (96004) GST OIL 100	CN
97	C	9150-00-135-2634	LUBRICATING OIL, ENGINE (77988) MOBILGARD 450	DR
98	C	9150-00-186-6699	LUBRICATING OIL, ENGINE (81349) MIL-L-46152	QT
99	C	9150-01-178-4726	LUBRICATING OIL, ENGINE (81349) MIL-PRF-2104	QT
100	C	9150-01-413-6892	LUBRICATING OIL, ENGINE, 10W-30 (81343) J2362	CO
101	C	9150-01-230-9749	LUBRICATING OIL, ENGINE, 10W-30, CN, 5 GAL (81343) 10W-30	CN
102	C	9150-00-186-6668	LUBRICATING OIL, ENGINE, CN, 5 GAL, OE/HDO-10 (81349) M2104-3-10W	CN
103	C	9150-00-188-9858	LUBRICATING OIL, ENGINE, CN, 5 GAL, OE/HDO-30 (81349) M2104-3-30W	CN
104	C	9150-00-188-9862	LUBRICATING OIL, ENGINE, OE/HDO-40; DR, 55 GAL (81349) 9150-00-188-9862	DR
105	F	9150-01-398-7341	LUBRICATING OIL, EXPOSED GEAR (27843) PRE-LUBE 19	CN
106	C	9150-01-035-5393	LUBRICATING OIL, GEAR, CN, 5 GAL, GO-80/90 (81343) J2360	CN

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
107	C	9150-00-027-3098	LUBRICATING OIL, GENERAL PURPOSE (77988) DTE HEAVY MEDIUM	QT
108	C	9150-00-458-0075	LUBRICATING OIL, GENERAL PURPOSE, 16 OZ CN (81349) MIL-PRF-32033	CN
109	O	9150-00-598-2911	LUBRICATING OIL, REFRIGERANT COMPRESSOR, RCO-4 (81348) VV-L-825	QT
110	C	7510-00-266-6712	MASKING TAPE, PRESSURE SENSITIVE ADHESIVE, 1" (19203) 8783476	RO
111	C	7510-00-266-6710	MASKING TAPE, PRESSURE SENSITIVE ADHESIVE, 2" (52170) 232 2IN.	RO
112	C	7510-00-266-6707	MASKING TAPE, PRESSURE SENSITIVE ADHESIVE, 3" (52170) 232 3 IN.	RO
113	O		MEDIA GARNET, 8-12 (1BZ02) 4643070155	BG
114	O	6850-01-493-8355	METAL CLEANER AND RUST REMOVER (1BZ02) B645800004	EA
115	C	7920-00-141-5550	MOPHEAD, WET (83421) 7920-00-141-5550	EA
116	C	5315-00-753-3885	NAIL, COMMON, 16 D, PG, 5 LB (81346) ASTM-F1667 NL CM S-11 B	PG
117	C	5315-00-753-3882	NAIL, COMMON, 5 LB (81346) ASTM-F1667 NL CM S-0-7B	PG
118	C	8540-00-285-7001	NAPKIN, TABLE, PAPER (58536) A-A-2838	BX
119	C	9150-01-237-7467	OIL, FOOD PROCESSING EQUIPMENT (81349) DOD-L-24651	GL
120	C	6830-01-049-5263	OXYGEN, TECHNICAL (81348) BB-O-925	CY
121	C	7290-00-633-9124	PAD, IRONING BOARD, 16" X 54" X 3/8" THICK (58536) A-A-297	EA
122	C	7920-00-823-9818	PAD, METAL POLISH (NEVER DULL), CN, 2LB (58536) A-A-59299	CN
123	C	7920-00-045-2940	PAD, SCOURING (27293) 7447	BX
124	C	6665-00-050-8529	PAPER, CHEMICAL AGENT DETECTOR (81361) D5-67-266	BK
125	C	7530-00-145-0414	PAPER, TABULATING MACHINE, COMPUTER PRINTER (56897) 143-20	BX
126	C	8540-00-530-3770	PAPER, TOILET, 96 ROLLS PER BOX (90274) 100	BK
127	C	6850-00-001-4194	PASTE, WATER INDICATING (65093) SAR-GEL	PG

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
128	C	7510-00-281-5234	PENCIL, WRITING #2 (83421) 7510-00-281-5234	DZ
129	C	9150-00-250-0933	PETROLATUM, TECHNICAL (81348) VV-P-236	CN
130	C		PIN, COTTER, PRONG, 1/2 IN X 6 IN, PLAIN STEEL FINISH (FITS BRIDLE AND RIDER SOCKET PIN) (39428) 98311A656	EA
131	C		PIN, COTTER, PRONG, 1/4 IN X 4 IN, PLAIN STEEL FINISH (FITS PLATE SHACKLE BOLT) (39428) 98311A558	EA
132	C		PIN, COTTER, PRONG, 3/16 IN X 3 IN, PLAIN STEEL FINISH (FITS RETRIEVING WIRE SOCKET PIN) (39426) 98315A520	EA
133	C	6515-00-137-6345	PLUG, EAR, HEARING PROTECTION, UNIVERSAL SIZE, VINYL FOAM, DISPOSABLE, 400 PER BOX (89875) 4-375	BX
134	C	7930-00-266-7136	POLISH, METAL (6X798) POLISH, METAL	EA
135	C	7930-00-205-0442	POWDER, SCOURING, 14 OZ CN (58536) A-A-47	CN
136	O		PRIMER, CEILCOAT (16605) FLAKETAR 675	GL
137	C	6830-00-584-3041	PROPANE, 14 OZ DISPOSABLE CYLINDER (6N430) 2140	EA
138	O	9150-01-493-8350	PUMP OIL, HP, 2.5 GAL. (1BZ02) B647800002	EA
139	C	7920-00-205-1711	RAG, WIPING, 50LB BALE (80244) 7920-00-205-1711	BE
140	O	2040-00-288-2866	RATGUARD, SHIP (81349) MILG2767	EA
141	O	6830-01-457-7848	REFRIGERANT GAS MIXTURE (58536) A-A-58060-R404AW15.4	EA
142	C	7930-00-045-6923	REMOVER, FLOOR, POLISH (80244) 7930-00-045-6923	GL
143	C	4240-00-629-8199	RESPIRATOR, AIR FILTERING, 20 PER BOX (D2607) GT-9999-3005-7	BX
144	O	3439-00-246-0564	ROD, WELDING, 1/16 X 36 (31505) AWSA5.2-80 RG60 0.062	LB
145	O	3439-00-246-0566	ROD, WELDING, 1/8 X 36 (31505) AWSA5.2-80 RG60 0.125	LB
146	O	3439-00-268-9668	ROD, WELDING, 1/8 X 36 (81348) RBCUZN-A 0.062	LB
147	O	3439-00-247-2978	ROD, WELDING, 1/8 X 36 (81348) RCUZN-A 0.125	LB
148	O	3439-00-518-1914	ROD, WELDING, 1/8" X 36" (31505) AWSA5.27-69 RCUZNC	CO



Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
149	O	3439-00-246-0565	ROD, WELDING, 3/32 X 36 (31505) AWSA5.2-80 RG60 0.093	LB
150	O	3439-00-262-7565	ROD, WELDING, 3/32 X 36, CO, 10LB (31505) AWSA5.27-85 CL RBCUZN-A 0.094	CO
151	O	4940-00-873-1730	RUBBER CEMENT (16720) V750-1	CN
152	O		SAND, MEDIA, 100 LB. (1BZ02) 4643020255	BG
153	C	8030-01-299-1762	SEALING COMPOUND (0A083) 77BR	TU
154	O	8030-00-616-7694	SEALING COMPOUND, ANTI-SEIZE (95534) X-PANDO PIPE JOINT COMPOUND	CN
155	O	8030-01-025-1692	SEALING COMPOUND, LOCTITE 242 (81349) MIL-S-46163	BT
156	C	8135-00-838-0122	SHEET, PLASTIC FOOD WRAP, ROLLED, 15" WIDTH, CLASS 7, RO-5000 FT (81348) L-P-370	RO
157	O	6850-00-880-7616	SILICONE COMPOUND (81343) AS8660 8OZTU	TU
158	O	6850-00-177-5094	SILICONE COMPOUND, 2 OZ PER TUBE (71984) DC4-20Z	TU
159	C	7930-00-579-8532	SOAP, LAUNDRY, 100 LB DRUM (81348) P-S-1792	DR
160	C	8520-00-129-0803	SOAP, TOILET, HAND, 4 OZ CAKE (80244) 8520-00-129-0803	BX
161	O	6810-00-264-6618	SODIUM BICARBONATE, TECHNICAL (58536) AA374-2	LB
162	O	6810-00-598-7316	SODIUM HYPOCHLORITE SOLUTION (1H4F2) PART NO. A-A-1427B	BX
163	O	3439-00-003-8601	SOLDER, LEAD ALLOY, ACID CORE (81346) SN10WRP20.028 1LB	SL
164	O	3439-00-188-6988	SOLDER, LEAD ALLOY, ROSIN CORE (81346) SN40WRAP3 0.090 1LB	SL
165	O	3439-00-163-4347	SOLDER, LEAD-TIN ALLOY, ACID CORE (81346) SN50BS 1LB	BR
166	O	3439-01-150-1051	SOLDER, ROSIN CORE (17794) 1243-0001	LB
167	O	3439-00-596-1718	SOLDER, SILVER (80009) 006-0664-00	EA
168	O		SOLVENT, CLEANING (16605) CEILCOTE T-410	GL
169	O	6850-01-023-5004	SOLVENT, ROSIN FLUX, 16 OZ. CAN (09800) 2009	CN
170	C	7510-00-272-9410	STAPLES, PAPER FASTENING, OFFICE TYPE, HEAVY DUTY, 1/2" X 1/2", 5000 UNIT BOX (02809) S.F.-13 1/2	BX
171	O	6850-01-493-8356	STORAGE, CHEMICAL (1BZ02) B645800003	EA

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
172	O	5975-01-034-5871	STRAP, TIEDOWN, ELECTRICAL COMPONENTS (96906) MS3367-7-0	HD
173	O		TAG, CAUTION (USED FOR LOCKOUT/TAGOUT) (3HPE6) 0116-LF-114-0100	BX
174	O		TAG, DANGER (USED FOR LOCKOUT/TAGOUT) (3HPE6) 0116-LF-115-4300	BX
175	O	8030-00-889-3535	TAPE, ANTISEIZING, 1/2 IN X 260 IN (96214) 417043-2	EA
176	C	5640-00-409-4265	TAPE, DUCT, RO, 180 FT (45255) DUCTTAPEALUMINUM	RO
177	C	5970-00-185-8531	TAPE, ELECTRICAL INSULATION, 81 1/2 FT PER RO (81165) 1045	RO
178	C	5970-00-012-1276	TAPE, INSULATION, ELECTRICAL (75037) 88	RO
179	C	9390-01-462-6814	TAPE, LUMINOUS, 1 IN X 50 YDS (76381) 3MN131PL	RO
180	C	9390-01-078-8660	TAPE, REFLECTIVE (94960) 3150-3X50 YD	RL
181	O	6830-01-390-9622	TETRAFLUOROETHANE, TECHNICAL (R134A) (2S827) 7798-3130	CY
182	C	8135-00-846-8409	TIE STRIP, BAG, 250 PER BD (58536) A-A-2105	BD
183	C	7920-00-823-9773	TOWELS, PAPER MACHINERY, TYPE 6 (83421) 7920-00-823-9773	MX
184	C	8450-00-291-0392	TOWELS, PAPER, BX=2400 (58536) A-A-696	BX
185	O	4720-01-528-6803	TUBE, POLYE, BLACK, .040, 1/4" (5 FEET) (05MH3) PH EB 43	FT
186	O	4720-01-528-6747	TUBE, POLYE, BLACK, .062, 1/2" (5 FEET) (05MH3) PH EB 86	FT
187	O	4720-01-528-6754	TUBE, POLYE, BLACK, .062, 3/8" (5 FEET) (05MH3) PH EB 64	FT
188	O	4720-01-528-6731	TUBING, 316 SS, .049, 1/2" (10 FEET) (05MH3) 1/2049316SMLS	FT
189	O	4720-01-528-6805	TUBING, 316 SS, .049, 3/8" (10 FEET) (05MH3) 3/8049316SMLS	FT
190	O	4710-00-277-4026	TUBING, COPPER, 1/2 IN (81349) MIL-T-24107	FT
191	O	4710-00-277-4029	TUBING, COPPER, 1/4 IN (81349) MIL-T-24107	FT
192	O	4710-00-277-4027	TUBING, COPPER, 3/8 IN (81346) ASTMB68B75375ODX032INWLTHK	FT
193	O	4710-00-277-4030	TUBING, COPPER, 5/16 IN (81349) MIL-T-24107	FT
194	C	4020-00-241-8886	TWINE, FIBROUS, 5 PLY BALL (81348) T-T-891	EA

Table 1. Expendable and Durable Items List (continued)

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, CAGEC, AND PART NUMBER	(5) U/I
195	C		WIRE, SAFETY LOCK, STAINLESS STEEL, .020 DIA, MIL-W-6715 (39428) 8860K61	EA

END OF WORK PACKAGE



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**OPERATOR'S MANUAL  
INLAND AND COASTAL LARGE TUG (LT)  
GLOSSARY**

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Aft or after	At, near, or toward the stern.
Aids to navigation	Charted marks (such as buoys, beacons, lights, and electronic devices) to assist navigators.
Amidships	Usually in the line of the keel, but sometimes halfway between bow and stern; often contracted to "midships."
Astern	Behind the vessel; in the direction of the stern.
Athwartships	At right angles to the fore-and-aft line of a vessel; across the vessel in a direction at right angles to the keel.
Beam	The maximum width of a vessel, also called breadth.
Berth	A place for securing a vessel, either in the stream or alongside a wharf or other vessel.
Bilge	The lowest interior position of a ship; the water that accumulates in the bilge is called bilge water.
Bilge pump	A pump used aboard vessels to remove accumulations of water in the bilge.
Bitter end	Last end of a rope or inboard end of an anchor cable secured to a bitt.
Bitts	Pair of heavy posts, set vertically in a deck or on a pier, to which mooring or towing lines are fastened.
Boat hook	A wooden staff with a metal hook and prod at one end used for fending off or holding on when coming alongside a vessel or a wharf. It is also used for picking up small objects from the water.
Bow	The forward part of a vessel.
Bowline	A line leading from the bow of a vessel.
Bulkhead	Partition dividing the interior of a vessel into various compartments.
Chafe	To wear down by rubbing the surface of a line against a solid object.
Chafing gear	A guard of canvas, rope, or similar material placed around spars, lines, or rigging to prevent wear.
Chocks	Round or oval holes in a vessel's bulwark, sometimes fitted with rollers, through which hawsers and ropes are passed; also blocks of wood for supporting boats, weights, and so on.
Cleat	Wood or metal fitting that has two projecting horns to which a line is secured.
Coaming	Sidewall of a hatch projecting above the deck around the perimeter of the hatch to prevent water from going below.

Coxswain	The enlisted person in charge of a small craft.
Dogs	Small, bent metal fittings used to secure watertight doors, hatch covers, manhole covers, and so on to close and fasten as tight as possible.
Draft	The depth of water which a vessel requires to float freely; the depth of a vessel from the waterline to the keel; also a sling load of cargo.
Engine room	Compartment containing the propulsion machinery of a vessel.
Faking down	To lay down rope in long or circular turns (coils) so that each turn of rope overlaps the next one underneath in such a way that the rope is clear for running.
Fenders	A device of canvas, wood, or rope used over the side to take the shock of contact between vessel and wharf or other vessel when alongside.
Fore	Parts of a vessel at or adjacent to the bow; also parts between the mid-ship section and stern.
Fore and aft	Lengthwise of a ship.
Gunwale	The uppermost continuous strake in a vessel's side; the upper edge of a vessel's hull.
Hard over	Turning the wheel as far as possible in a given direction.
Hatch	Opening in a deck giving access to cargo holds.
Helm	The machine by which a vessel is steered.
Hold	Space between the lowermost deck and the bottom of a vessel that is used for the stowage of ballast, cargo, and stores.
Hull	Framework of a vessel, including all decks, but exclusive of masts, yards, riggings, and all outfit or equipment.
Inboard	Toward the centerline of a vessel; also the side next to a wharf or another vessel.
Knot	A unit of speed equal to 1 nautical mile per hour
Lanyard	Rope used to make anything fast, especially a short piece reeved through deadeyes, connecting shrouds, stays, and so on, to side of vessel.
Lazarette	A compartment used for storage purposes in the stern of a vessel.
Left-hand propeller	When viewed from astern the propeller that turns counterclockwise while driving the boat ahead.
Life lines	Lines stretched fore and aft along the decks to give the crew safety against being washed overboard.

Life jacket	An apparatus of buoyant material, designed to keep a person afloat.
Life raft	Raft kept buoyant by cylindrical air chambers, designed to keep survivors of a disaster afloat for rescue.
Life ring	Floating ring covered with canvas that is designed to support a person in water.
Main deck	First complete deck running the full length of a vessel.
Maneuver	To make a series of changes in direction and position for a specific purpose.
Moored	Lying with both anchors down; tied to a pier or anchor buoy; also to secure a vessel other than by anchoring with a single anchor.
Mooring lines	Cables or ropes used to tie up a vessel.
Outboard	Toward the side of a vessel in relation to the centerline or outside the vessel entirely; also, the side away from a wharf or vessel alongside.
PF <sub>D</sub>	Personal Floatation Device: An apparatus of buoyant material, designed to keep a person afloat.
Pier	A wharf which projects into a harbor, with water and accommodations for berthing vessels on two or more sides of it.
Port side	The left side of a vessel looking forward, indicated by a red running light when underway at night; an opening in a vessel's side; a harbor for cargo operations.
Potable water	Drinkable water, meeting standards set by the U.S. Public Health Service.
Quarter	General area from the middle of a vessel to the extreme stern; also to proceed with the quarter to the wind or sea; to bring the sea or wind \ first on one quarter and then on the other.
Right-hand propeller	When viewed from astern, the propeller that turns clockwise while driving the boat ahead.
Rudder	Flat structure hung vertically on the sternpost, just aft of the screw, and used to steer a vessel by offering resistance to the water when turned to an angle with the centerline.
Rudder amidships	The position of the rudder when it parallels the keel line of the vessel.
Running lights	All lights required to be shown during peacetime by a vessel that is under way.
Scope	Length of anchor chain or cable to which a vessel is riding.
Seacock	Valve connecting with the outside raw water in the lower part of vessel which can be used to flood various parts.
Sheave	A grooved wheel or pulley inside a block over which a line runs.

Spring line	A mooring line leading at an angle of about 45 degrees from the fore and aft line of a vessel to a wharf or another vessel.
Starboard side	Right side of a vessel looking forward; indicated by a green running light when underway at night.
Stern	The after end (rear) of a vessel.
Stern line	A line leading from the stern of a vessel.
Stow	To put away, to lock up for safekeeping in a proper place.
Topside	Above decks, such as on the weather deck or bridge.
Towing bitts	Vertical posts on a vessel to which towing or mooring lines are secured.
Trim	Difference in draft at the bow and stern of a vessel; manner in which a vessel floats on the water, whether on an even keel or down by the head or stern; shipshape. To adjust a vessel's position in the water by arranging ballast, cargo, and so on. To arrange for sailing; to assume, or cause a vessel to assume, a certain position, or trim, in the water.
Turnbuckle	Link threaded on both ends of a short bar that is used to pull objects together.
Underway	A vessel is said to be underway when she is not anchored, moored, aground, or beached.
Wharf	Projecting platform of timber, stone, or other material which extends into water deep enough for vessels to be accommodated alongside for loading or unloading.
Wheel	The instrument attached to the rudder by which a vessel is steered.
Winch	A piece of machinery, which operates a shaft, fitted with a drum or drums upon which lines or cables are wound to hoist or haul an object.

END OF WORK PACKAGE



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By Order of the Secretary of the Army:

Official:

  
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0529211

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**From:** "Whoever" whoever@avma27.army.mil  
**To:** whoever@avma27.army.mil  
**To:** TACOM-TECH-PUBS@ria.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-1915-200-10
9. **Pub Title:** TM
10. **Publication Date:** 11-APR-88
11. **Change Number:** 12
12. **Submitter Rank:** MSG
13. **Submitter Fname:** Joe
14. **Submitter Mname:** T
15. **Submitter Lname:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 1
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.



<p align="center"><b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b></p> <p><small>For use of this form, see AR 310-1; the proponent agency is the US Army Adjutant General Center.</small></p>	<p><small>Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).</small></p>	<p><b>DATE:</b> Date form is filled out.</p>
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<p><b>TO:</b> <i>(Forward to proponent of publication or form) (Include ZIP Code)</i></p> <p>Mailing address found on title block page.</p>	<p><b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i></p> <p>Your mailing address.</p>
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**PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS**

<p><b>PUBLICATION/FORM NUMBER:</b> TM X-XXXX-XXX-XXX</p>	<p><b>DATE:</b> Date of the TM.</p>	<p><b>TITLE:</b> Title of TM.</p>
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ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO.	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON <small>(Exact wording of recommended change must be given)</small>
	0019 00 1	3	1	1		Step No. 2 says to secure doors open with locking bar or hooks from where to what? The bars or hooks are not identified.
	0019 00 4	4	1	1		Step No. 19 states to remove locking bars, pins or hooks from where to what? The bars, pins or hooks are not identified. Where are they stored?

SAMPLE

\* Reference to line numbers within the paragraph or subparagraph.

<p><b>TYPED NAME, GRADE OR TITLE</b></p> <p>Doe, John, CPL</p>	<p><b>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</b></p> <p>755-1313</p>	<p><b>SIGNATURE</b></p> <p><i>CPL John Doe</i></p>
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<b>TO:</b> (Forward to proponent of publication or form) (Include ZIP Code)	<b>FROM:</b> (Activity and location) (Include ZIP Code)	<b>DATE:</b>
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**PART II- REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

<b>PUBLICATION/FORM NUMBER:</b> TM X-XXXX-XXX-XXX	<b>DATE:</b> Date of the TM.	<b>TITLE:</b> Title of TM.
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PAGE NO.	COLM NO.	LINE NO.	FEDERAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION
SAMPLE								

**PART III - REMARKS** (Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)

\* Reference to line numbers within the paragraph or subparagraph.

TYPED NAME, GRADE OR TITLE  Doe, John, CPL	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION  755-1313	SIGNATURE  CPL John Doe
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<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b> For use of this form, see AR 25-30; the proponent agency is OAASA						Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
<b>TO:</b> (Forward to proponent of publication or form) (Include ZIP Code)						<b>FROM:</b> (Activity and location) (Include ZIP Code)	
<b>PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS</b>							
PUBLICATION/FORM NUMBER TM 55-1925-273-10-2					DATE	TITLE Operator's Manual for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)	
ITEM	PAGE	PARA-	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
TYPED NAME, GRADE OR TITLE					TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE

<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i>	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i>	<b>DATE</b>
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**PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

<b>PUBLICATION NUMBER</b> TM 55-1925-273-10-2	<b>DATE</b>	<b>TITLE</b> Operator's Manual for Inland and Coastal Large Tug (LT) NSN 1925-01-509-7013 (EIC XAG)
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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III - REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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### Metric Conversion Factors

Mc x F = Cf		
Measurement to be Converted (Mc)	Factor (F)	Converted Measurement (Cf)
Meters (m)	x 39.37	= Inches (in.)
Meters (m)	x 3.281	= Feet (ft)
Meters (m)	x 1.094	= Yards (yd)
Inches (in.)	x 25.40	= Millimeters (mm)
Inches (in.)	x 2.54	= Centimeters (cm)
Inches (in.)	x 0.0254	= Meters (m)
Inches (in.)	x 25400	= Micrometers (μm)
Feet (ft)	x 0.305	= Meters (m)
Square feet (ft <sup>2</sup> )	x 0.093	= Square meters (m <sup>2</sup> )
Foot-Pounds	x 1.35582	= Newton meters (N m)
Newton meters (N m)	x 0.73756	= Foot Pounds
Yards (yd)	x 0.914	= Meters (m)
Square yards (yd <sup>2</sup> )	x 0.836	= Square meters (m <sup>2</sup> )
Square Inches (in <sup>2</sup> )	x 6.452	= Square Centimeters (cm <sup>2</sup> )
Cubic Inches (in <sup>3</sup> )	x 16.39	= Cubic Centimeters (cm <sup>3</sup> )
Cubic Centimeters (cm <sup>3</sup> )	x 0.061	= Cubic Inches (in <sup>3</sup> )
Cubic Feet (ft <sup>3</sup> )	x 0.028	= Cubic Meters (cm <sup>3</sup> )
Gallons (gal)	x 3.785	= Liters (L)
Liters (L)	x 0.2642	= Gallons (gal)
Kilometers (km)	x 0.5397	= Nautical miles (nmi)
Meters (m)	x 0.0005397	= Nautical miles (nmi)
Nautical miles (nmi)	x 1.853	= Kilometers (km)
Fluid Ounces (oz)	x 29.574	= Milliliters (mL)
Pounds (lb)	x 0.4536	= Kilograms (kg)
Kilograms (kg)	x 2.2046	= Pounds (lb)
Kilopascals (kPa)	x 0.145	= Pounds (lb) per Square Inch (psi)
Pounds per Square Inch (psi)	x 6.895	= Kilopascals (kPa)
Degrees Centigrade (°C)	(°C x 1.8) + 32	= Degrees Fahrenheit (°F)
Degrees Fahrenheit (°F)	(°F-32) ÷ 1.8	= Degrees Centigrade (°C)
Bar	x 14.5	= Pounds per Square Inch (psi)
Pounds per Square Inch (psi)	x 0.06894	= Bar
Horsepower (hp)	x 0.746	= Kilowatt (kW)
Kilowatt (kW)	x 1.341	= Horsepower (hp)

PIN: 082851-000