

SOUTHEAST REGIONAL MAINTENANCE CENTER  
LOCAL STANDARD ITEM

FY-20

ITEM NO: 099-55SE  
DATE: **04 JAN 2019**  
CATEGORY: I

1. SCOPE:

1.1 Title: Cleaning and Pumping; accomplish (CMAV)

2. REFERENCES:

- 2.1 Standard Items
- 2.2 S9086-T8-STM-010/CH-593, Pollution Control
- 2.3 S9086-SP-STM-010/CH-542, Gasoline and JP-5 Fuel Systems
- 2.4 MIL-HDBK-291, Military Handbook Cargo Tank Cleaning
- 2.5 S9086-CJ-STM-010/CH-075, Fasteners
- 2.6 S9086-CM-STM-020/CH-078, Gaskets and Packing

3. REQUIREMENTS:

3.1 Open, ventilate, empty, clean, render dry, and maintain any tank or space including each adjacent tank, space, or piping system where the scope of repairs will result in a need for certification during the performance of this Job Order.

3.1.1 Ventilate each harmful vapor, fume, or mist to the exterior of the vessel.

3.1.2 Submit one legible copy, in approved transferrable media, of a report listing the location, origin, and quantity of each manhole cover removed in 3.1 in respect to its tank, ship's frame, and distance off centerline to the SUPERVISOR.

3.1.3 Clean and disinfect each CHT/sewage tank and associated piping in accordance with 2.2.

3.1.3.1 Maintain one system for Ship's Force use at all times.

3.1.4 Clean each tank and associated piping in accordance with 2.3 and 2.4.

3.1.5 Clean and inspect each fastener removed for wear and defects, using 075-8.3 of 2.5 for accept or reject criteria. Visually inspect to ensure material type is the same as required in 3.11. Retain each fastener found acceptable for reuse.

3.1.5.1 Accomplish a visual inspection to verify correct material for application.

3.1.5.2 Submit one legible copy, in approved transferrable media, of a report listing results of the requirements of 3.1.5 and 3.1.5.1 to the SUPERVISOR.

3.2 Steam clean each area where the removal of preservative is required.

3.2.1 Install new rust preventative compound conforming to MIL-PRF- 16173, Grade One or 3.

3.2.2 Install new each Monel fill and drain plug conforming to QQ-N-281, Class B, to replace those removed to accomplish steam cleaning.

3.3 Pump each tank containing a petroleum product to the low suction level of the tank.

3.3.1 Off-loading/on-loading of any petroleum product **must** be accomplished during daylight hours only.

3.3.2 Each hose, pump, and storage container **must** be clean and dry prior to start of off-loading/on-loading.

3.3.3 Submit one legible copy, in approved transferrable media, of completed Attachment A (inventory schedule-petroleum product) to the SUPERVISOR.

3.3.4 Remove and dispose of each liquid not being stored for reuse, including compensating sea water from each compensating fuel tank, sludge, and debris in accordance with each federal, state, and local law, code, ordinance, and regulation.

(V) (G) "VERIFY OFF LOAD COORDINATION"

3.4 Coordinate the off-loading or transferring of each fluid through the ship's Damage Control Assistant (DCA), via the SUPERVISOR, to maintain ship's stability and to prevent flooding.

3.4.1 Obtain a list from the SUPERVISOR of the petroleum sounding for each tank prior to start of each pumping operation.

(V) (G) "VERIFY CLEAN CONTAINER"

3.5 Off-load and store in a clean storage container the lube oil and hydraulic oil removed from each tank. On-load when directed by the SUPERVISOR.

3.5.1 Accomplish the requirements of 009-63 of 2.1.

3.5.1.1 Test and analyze sample from each tank prior to off-loading.

3.5.1.2 Test and analyze sample from each storage container prior to on-loading.

3.6 Clean the bilge of each space noted in the Job Order, free of trash, debris, grease, oily liquid, and other liquid contaminants prior to the initial certification.

3.6.1 Maintain each bilge in a clean, dry condition for the duration of the availability.

3.6.2 Remove each liquid from each bilge as noted in the Job Order. Removals **must** be measured.

3.6.2.1 Submit one legible copy, in approved transferrable media, of a report listing the amount of gallons removed in 3.6.2, responsible source of liquid, and date liquid was removed after each pumping operation to the SUPERVISOR.

3.6.3 Remove and install pumping equipment 3 evolutions after space turnover to support 3.6.1 and 3.6.2.

(V) (G) "CLEAN AND DRY BILGES"

3.6.4 Prior to space turnover, when directed by the SUPERVISOR, accomplish a final detergent cleaning of each bilge of each space as noted in the Job Order, removing all trash, debris, grease, oily liquid, and other liquid contaminants from each bilge.

3.7 Clean each chain locker as noted in the Job Order free of silt, mud, and foreign matter.

3.8 Dispose of liquid waste off-base in accordance with each federal, state and local law, code, ordinance or regulation. Disposal quantity **must** be measured. Total amount of liquids disposed greater or less than the amount noted in the Job Order will be the subject of an equitable adjustment.

3.9 Tank Closure Repairs:

3.9.1 Clean, chase, or tap each threaded area prior to installing each cover.

3.9.2 Weld fill, drill, and tap a total of 15 each stripped manhole cover bolting ring hole for tanks opened in 3.1.

3.9.3 Remove existing and install new a total of 15 each missing or broken manhole cover stud for tanks opened in 3.1 conforming to MIL-DTL-1222, Type IV, Grade 304.

3.9.4 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, B, C or D, Line One through 7.

3.9.5 Remove all paint from each seal mating surface (both cover and tank ring) prior to 3.9.6.

3.9.6 Accomplish the requirements of 009-32 of 2.1 for each new and disturbed surface in the vicinity of tank closure, to include each manhole ring, sealing area, coaming and flanged area.

(V) (G) "INSPECT TANK CLEANLINESS"

3.10 Inspect each tank for cleanliness and completion of repairs prior to final closing. Document the personnel who were present during the inspection and confirm that they have exited the space prior to closure of tanks, voids, and cofferdams. Designate one person to account for all personnel who may have entered the space.

3.11 Install each manhole cover.

3.11.1 Install each existing fastener found acceptable in 3.1.5.

3.11.2 Install manhole cover for each tank, using new each gasket in accordance with Table 078-8-2 of 2.6, and new each CRES washer conforming to FF-W-92, Type A, Grade One, Class B, and new each brass nut conforming to MIL-DTL-1222, Type I, Grade 464, and/or new each CRES hex head cap screw conforming to ASTM F 593, Group 1, Alloy 304, or Group 2, Alloy 316.

3.11.2.1 Install new 3/16-inch thick gaskets in accordance with Table 078-8-2 of 2.6, and new each hex head brass nut conforming to MIL-DTL-1222, Type I, Grade 464, for each DDG-51 Class ships' high temperature compartment.

3.11.2.2 Install new each nickel-copper hex head, self-locking nut conforming to NASM-25027 for LSD-41 and LSD-49 Class ships.

3.11.2.3 Install new each gasket in accordance with Table 078-8-2 of 2.6, using gasket sealant conforming to MIL-S-45180, Type II, and new each CRES 303 nut conforming to MIL-DTL-1222, Grade 304, and new each galvanized steel washer conforming to SAE-1040, for each compensating tank on LHD and LHA Class ships.

3.11.2.4 Install new each CRES bolt conforming to MIL-DTL-1222, Grade 5, Class 316, for each flush deck bolted manhole cover.

3.11.3 Install access cover for each potable water, feedwater, and sewage tank, using new each gasket in accordance with Table 78-8-2 of 2.6, and new each zinc coated steel nut conforming to MIL-DTL-1222, Type I, Grade 5, and new each CRES washer conforming to FF-W-92, Type A, Grade One, Class B.

3.11.4 Determine the proper tightening sequence from Figure 075-4-1 of 2.5 and 078-8.2.3 of 2.6 (078-8.2.3 refers to Figure 078-8-4 to illustrate several bolt tightening patterns).

(V) (G) "VERIFY TORQUE"

3.11.5 Tighten fasteners uniformly. Apply 10 percent of the specified torque first to make sure that the parts are solidly together. Then, apply torque in 25 percent increments (i.e., 25, 50, 75 and 100 percent). Reverse previous sequence (i.e., 6, 5, 4, 3, 2, 1), tightening to 100 percent of required torque.

3.11.6 Verify proper thread protrusion in accordance with 7.5.1 and 8.2.3 of 2.5.

3.12 Coordinate the filling of each compensating fuel tank with sea water upon

completion of work.

3.13 Accomplish the requirements of 009-32 of 2.1 for each new and disturbed surface.

4. NOTES:

4.1 For the purpose of this Work Item, the term "tank" or "space" includes each void, cofferdam, and inaccessible or confined area.

4.2 Consider each bilge to contain contaminated oily salt water.

4.3 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.4 Associated piping is defined as, "An assembly of pipe, tubing, each valve, fitting and related component forming a whole or a part of a system which starts or terminates in subject area, thus being common to and associated with same."

4.5 PTFE string gasket material of 100 percent virgin 3500 VALVERLON 3/32 inch diameter (manufactured by A. W. Chesterton Co) may be used as a means of ensuring a watertight seal of each manhole and access cover.

4.6 Torque wrenches should be selected in such a manner that the required final torque falls within 20 to 90 percent of the torque wrench range.

4.6.1 A torque wrench with a scale range of 0-100 ft-lbs can be used for a maximum torque of 90 ft-lbs and a minimum torque of 20 ft-lbs.

4.6.2 A torque wrench with a scale range of 0-250 ft-lbs can be used for a maximum torque of 225 ft-lbs and a minimum torque of 50 ft-lbs.

ATTACHMENT A

**INVENTORY SCHEDULE - PETROLEUM PRODUCTS**

SHIP: \_\_\_\_\_ CONTRACTOR: \_\_\_\_\_ SUBCONTRACTOR: \_\_\_\_\_  
 CONTRACT NO. \_\_\_\_\_ LOT NO. \_\_\_\_\_

TANK NO.	TYPE OF PETROLEUM PRODUCT	ITEM NO	PUMPED TO TANK/TRUCK/BARGE NO.	DATE REMOVED FROM SHIP	TAPE READING		NUMBER GALLONS REMOVED	REMARKS
					START	FINISH		

SIGNATURES

CONTRACTOR/SUBCONTRACTOR AUTHORIZED REPRESENTATIVE \_\_\_\_\_

SHIP'S COMMANDING OFFICER'S AUTHORIZED REPRESENTATIVE \_\_\_\_\_