

Report Date: 30 Apr 2012

**Summary Report for Individual Task
551-88L-2041
Comply with Fueling Procedures
Status: Approved**

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

Condition: Aboard a vessel, at sea, at anchor or moored alongside the pier, day or night, under all sea and weather conditions, comply with fueling procedures of Army vessels. Take all necessary precautions as required by FM 4-01.502. Failure to comply can result in damaged equipment and serious injury or death to personnel.

Standard: As part of a fueling team, Soldier will transfer fuel within the vessel and fueling the vessel from an off hull source, IAW with vessel Standard Operating Procedure (SOP) to prevent spills or injury to vessel and crew.

Special Condition: None

Special Standards: None

Special Equipment:

Safety Level: High

MOPP:

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: None

Performance Steps

1. Align the electrical system for fuel transfer operations to fuel an Army Vessel Internal Transfer.

a. In the engine room, set the circuit breakers to ON:

(1) Set up filtration system or fuel filter/water separator filter.

(2) Set up the Tank Level Indicator (TLI) system.

b. Set the FUEL OIL TRANSFER PUMP circuit breaker to ON.

c. Set the FUEL OIL TRANSFER PUMP ON.

d. Energize and test the high level alarm panel:

(1) Set (or verify) the FUEL OIL DAY TANKS Port and Starboard(P&S) HIGH LEVEL ALARM circuit breaker to ON.

(2) Test the port and starboard day tank high level alarm panel by momentarily placing each TEST switch in the ON position.

(3) Secure the tested alarm.

e. Set the ON-OFF switch on the master tank level indicator panel to ON.

f. Compare the STBD DAY TK Tank Level Indicator (TLI) gauge and the PORT DAY TK (TLI) gauge in the Engine Observation Station (EOS) with the STARBOARD DAY TANK TLI gauge and the PORT DAY TANK TLI gauge above the fuel oil transfer manifold.

Note: Watercraft Engineers (88L) are required to perform fuel oil fill, transfer and supply system tasks under normal conditions, supervised by 88L40 or Warrant Officer.

2. Fill the day tanks.

a. Align the fuel oil transfer piping system.

(1) Close the Fuel Oil Day Tank Fill Valves.

(2) Operate the fuel filter/water separator.

(3) Place one fuel oil transfer pump online.

(4) Place fuel oil transfer pump 1 online.

WARNING

Fueling operations present a serious fire hazard. Verify that NO SMOKING signs are placed at designated locations. Make routine announcements that fueling operations are in progress. Take all necessary precautions as required by FM 4-01.502. Failure to comply can result in damaged equipment and serious injury or death to personnel.

CAUTION

While operating the fuel filter/water separator, use only one pump to accomplish the fuel transfer. The use of both fuel oil transfer pumps will exceed the rated capacity of the fuel filter/water separator.

b. Select the day tank to be filled.

(1) Fill the emergency diesel generator day tank.

(2) Fill the starboard fuel oil day tank.

(3) Fill the port fuel oil day tank.

(4) Open the suction valve for the selected fuel oil supply tank on the fuel oil manifold.

Note: Do not operate the fuel oil transfer pumps against a closed fill valve as damage to the pump and/or piping could occur. Prior to transferring fuel to the starboard or port day tank, verify that the fuel transfer pump alarm panel is energized and tested.

WARNING

Avoid overfilling any tank. Overfilling may result in a fuel spill and fire hazard. Ensure that the vent caps are OPEN on oil fuel vents. Failure to comply may result in damaged equipment and serious injury or death to personnel.

CAUTION

Do not operate the fuel oil transfer pumps against a closed fill valve as damage to the pump and/or piping could occur. Prior to transferring fuel to the starboard or port day tank, verify that the fuel transfer pump alarm panel is energized and tested.

c. Transfer the fuel.

(1) Set the ON-OFF switch(es) to ON

(2) Verify that the POWER AVAILABLE indicator(s) energizes.

(3) Start the pump(s) by pressing the START pushbutton(s).

(4) Verify that the MOTOR RUN indicator(s).

(5) Observe that the TLIs at the fuel oil station.

(6) Observe the readings on the inlet pressure gauge and the discharge pressure gauge on the fuel filter/water separator.

(7) Drain water from the fuel filter/water separator.

(8) Secure from fuel transfer.

(9) Close the inlet valve.

(10) Open the drain valve.

(11) Close the drain valve after draining the water.

(12) Open the inlet valve.

(13) Resume fuel transfer.

(14) Stop the fuel oil transfer pump(s), and secure the fuel oil transfer piping system when the TLIs (or sounding tape levels) for the selected day tank indicate the desired level.

d. Secure the fuel oil transfer piping system pressing the stop pushbutton, at the fuel oil transfer pump motor controllers.

3. Transfer the fuel between storage tanks.

a. Align the fuel oil transfer piping system:

(1) Open the suction valve on the fuel oil manifold for the selected fuel oil supply tank the fuel oil is being pumped from.

(2) Open the fill valve on fuel oil manifold for the selected fuel oil supply tank the fuel oil is being pumped to.

b. Commence transferring fuel using the fuel oil transfer pump motor controllers:

(1) Verify that the level for the tank being pumped to increases, and the level for the tank being pumped from decreases at the fuel oil station TLIs

(2) Stop the fuel oil transfer pumps when the TLI (or sounding tape levels) indicates the desired level.

c. Secure the fuel oil transfer pumps at the fuel oil pump motor controllers.

d. Secure the fuel oil transfer.

Note: The fuel filter/water separator is not needed when transferring fuel between storage tanks.

WARNING

Avoid overfilling any tank. Overfilling may result in a fuel spill and fire hazard. Ensure that vent caps are OPEN on oil fuel vents. Failure to comply may result in damaged equipment and serious injury or death to personnel.

CAUTION

Do not operate the fuel oil transfer pumps against a CLOSED discharge valve as damage to the pump and/or piping could occur.

4. Refuel from an off hull source.

a. Align the fuel oil fill piping to receive fuel from an off hull source

b. Align the tank to be fueled:

(1) Fill a day tank directly from the shore connection.

(2) Fill the fuel oil storage tanks from the shore connection.

c. Select the fuel supply line.

d. Open fuel oil connection.

Note: The fuel filter/water separator is not needed when transferring fuel between storage tanks.

5. Begin fueling.

a. Direct the supplier to begin sending fuel oil to the vessel.

b. Monitor the tank levels at the TLIs (or sounding tape levels) vigilantly.

c. Open the supply valve for the next tank to be filled as the tank reaches approximately 3/4 full.

d. Throttle down the supply valve of tank that is almost full.

e. Close the fill valve, on the fuel oil manifold, for the selected supply tank.

f. Repeat these steps until all of the selected storage tanks are full.

g. Direct the supplier on the pier to cease pumping when the final tank to be filled is near full.

6. Stop the fueling operation.

a. Verify that pumping has ceased.

b. Allow all hoses to drain before closing the last fill valve on the fuel oil manifold.

7. Secure the fuel oil supply piping system.

a. Disconnect the shore connection.

b. Cap the hose connection fitting.

c. Close and cap the deck fill connection valve.

d. Close the last fill valve on the fuel oil manifold.

e. Verify that all valves are in the closed position.

Note: The maximum fueling rate is 250 gal/min. The port and starboard fill connections join before reaching the fuel oil header. If both external fuel oil connections are used to fuel the ship, verify that the total fueling rate does not exceed 250 gallons per minute (gal/min). Static electricity can cause a spark when connecting the hose from fuel source to Vessel. Verify that all grounding connections are made prior to connecting fuel hose. The wake of passing watercraft can cause the Vessels to move sufficiently to part fuel hose.

(Asterisks indicates a leader performance step.)

Evaluation Preparation: None

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Aligned the electrical system for fuel transfer operations to fuel an Army Vessel Internal Transfer.			
a. In the engine room, set the circuit breakers to ON.			
b. Set the FUEL OIL TRANSFER PUMP.			
c. Energized and tested the high level alarm.			
d. Set the ON-OFF switch on the master tank level indicator.			
e. Compared the Tank Level Indicator gauge.			
2. Filled the day tanks.			
a. Aligned the fuel oil transfer piping system			
b. Selected the day tank to be filled.			
c. Transferred the fuel.			
d. Secured the fuel oil transfer piping system.			
3. Transferred the fuel between storage tanks.			
a. Aligned the fuel oil transfer piping system.			
b. Commenced transferring fuel using the fuel oil transfer pump motor controllers.			
c. Secured the fuel oil transfer pumps.			
d. Secured the fuel oil transfer			
4. Refueled from an off hull source.			
a. Aligned the fuel oil fill piping.			
b. Aligned the tank.			
c. Selected the fuel supply line.			
d. Opened fuel oil connection.			
5. Began fueling operations.			
6. Stopped the fueling operation.			
7. Secured the fuel oil supply piping system.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	FM 4-01.502	ARMY WATERCRAFT SAFETY	No	No
	TM 55-1905-223-10	OPERATORS MANUAL FOR LANDING CRAFT, UTILITY (LCU 2000 CLASS) (NSN 1905-01-154-1191) (REPRINTED W/BASIC INCL C1-9)	No	No
	TM 55-1915-200-10	OPERATORS MANUAL FOR LOGISTIC SUPPORT VESSEL (LSV) (NSN 1915-01-153-8801) (REPRINTED W/BASIC INCL C1-6)	No	No
	TM 55-1925-236-12	OPERATOR AND UNIT MAINTENANCE MANUAL FOR SMALL TUG (ST) (NSN 1925-01-435-1713)	No	No
	TM 55-1925-273-10-1	OPERATOR'S MANUAL FOR INLAND COASTAL LARGE TUG (LT)	No	No

Environment: None

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk

Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks :

Task Number	Title	Proponent	Status
N/A	N/A	Not Selected	Obsolete