

Summary Report for Individual Task
551-8ST-3024
Conduct Maintenance of a Rigid Hull Inflatable Boat (RHIB)
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - The materials contained in this course have been reviewed by the course developers in coordination with the Fort Lee, VA 23801 foreign disclosure authority. This course is releasable to students from all requesting foreign countries without restrictions.

Condition: Assigned as a crew member on board a vessel, given a rigid inflatable boat, applicable TM's, cleaning supplies, RIB repair kit, and any of these scenarios: routine scheduled maintenance, after actual use or being exposed/saturated in salt water, or new equipment being installed.

Standard: Inspect the RIB for damage, clean and maintain parts, repair any damages, and store the RIB so it was ready for use.

Special Condition: None

Safety Risk: Low

MOPP 4:

Task Statements

Cue: None

DANGER
None

WARNING

MODIFICATION HAZARD

Unauthorized modifications, alterations or installations of or to this equipment are prohibited and are in violation of AR 750-10. Any such unauthorized modifications, alterations or installations could result in death, injury or damage to the equipment.

HIGH PRESSURE HYDRAULIC SYSTEM HAZARDS

Hydraulic systems can cause serious injuries if high pressure lines or equipment fail. Never work on hydraulic systems or equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment, and who can give first aid. A second person should stand by controls to turn off hydraulic pumps in an emergency. When the technicians are aided by the operators, the operators must be warned about dangerous areas.

MOVING MACHINERY HAZARDS

Be very careful when operating or working near moving machinery. Running engines, rotating shafts, and other moving machinery parts could cause personal injury or death.

ELECTRICAL HAZARDS

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death under adverse conditions". Be careful not to contact 115-Vac input connections when installing or operating this equipment. Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

CAUTION

Do NOT expose repairs to the sun or rain.

Do NOT leave the adhesive tube next to a heat source or direct flames.

Always work in a well-ventilated area when using adhesives.

Avoid contact with the skin or eyes, swallowing it, or inhaling adhesive vapors.

Remarks: None

Notes: None

Performance Steps

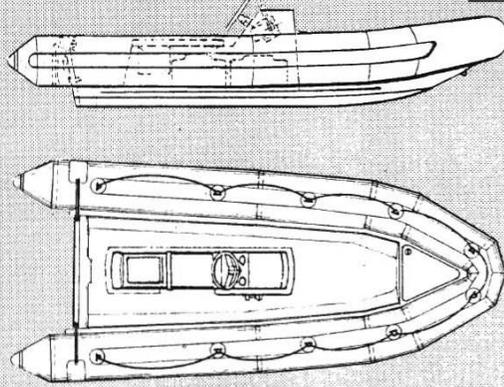
1. Conduct routine maintenance and perform an inspection before each use.

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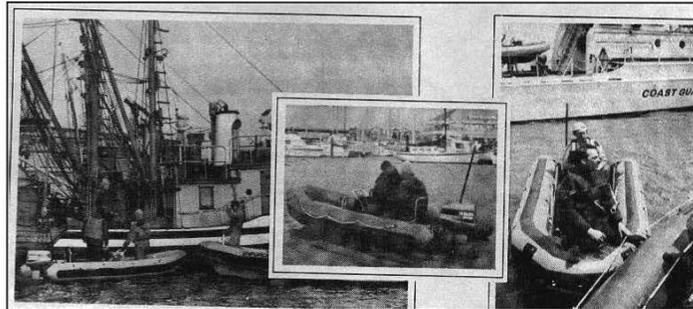


GENERAL SPECIFICATIONS

Length overall	4.6 m	15'	Horsepower (long shaft)	50
Beam over rigid hull	1.5 m	4'10"	Estimated speed	28 kn
Length over rigid hull	3.8 m	12'6"	Number of air chambers	5
Beam (outside inflated tube)	2.0 m	6' 6"	Tube diameter	0.45 m 18"
Hull depth (sheer to keel)	0.20 m	8"	Persons max.	7
Weight	408 kg	900 lbs	Maximum capacity (incl. engines & fuel)	926 kg 2038 lbs

Specifications subject to change without notice

ENFORCEMENT - CUSTOMS - POLICE - FIRE - PATROL



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Zodiac Workboat

a. Check that the steering cable and throttle control cables are properly greased. Check the steering systems freedom and range of movement.

(1) Check the steering cable attachment points and the cable outer mount points for security of attachment.

(2) Tighten as required.

b. Check to see if the battery is in good condition and fully charged before the boat is launched. Ensure the battery terminals are tight and free of corrosion.

c. Check the tightness of all engine securing bolts to the transom.

d. Check the fuel system and the tightness of the hose clamping rings, and replace old damaged elements as necessary. Inspect the hoses for dry rotting.

e. Check spare parts and tools and replace as necessary.

f. Check the hull for abrasions, scratches, gouges, etc.

g. Check the outboard motor.

(1) Clean the exterior for cleanliness and clean soft cloth if necessary.

(2) Check the tiller arm and throttle for loose fitting and tighten if necessary.

(3) Check that the gear shift lever moves into forward and reverse position.

(4) Check the propeller for debris, foreign objects, and loose/broken blades.

Note: Refer to the manufacturer's manual for maintenance of specific outboard motors. Refer any problems encountered during the inspection to unit maintenance.

CAUTION

Do NOT use strong detergents (acid, trichloroethylene), silicone-based products, or like agents on buoyancy tubes. If spills of these items occur, immediately wash off with water.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer 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, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Do NOT use high pressure cleaning equipment.

2. Maintain a clean buoyancy tube.

Note: Do NOT use high pressure cleaning equipment likely to damage the boat.

NOTE: Do NOT use strong detergents (acid, trichloroethylene), silicone-based products, or like agents on buoyancy tubes. If spills of these items occur, immediately wash off with water.

a. Open the drain port(s) and wash the boat with a hose to remove sand and particles.

b. Clean with soap and fresh water.

c. Remove all traces of tar using a specific tar-removal product if possible.

d. Check the buoyancy tube for leaks with foamy soap and water.

e. Rinse with fresh water and dry thoroughly.

f. Check that valves and gaskets are clean and not damaged.

g. Check that the self bailer is not clogged.

h. Check the air-tightness of the boat.

Note: Loss of pressure over 24 hours is not unusual. Add air as necessary. If loss of pressure exceeds 10 mb (0.14 PSI)/5 hours for buoyancy tube, check the air-tightness of the boat. Temperature has a great influence on air pressure. A variation of 1° C results in a variation in the same way of about +/- 4 mb (0.06 PSI). If you have a problem with an air leakage, check that all valves are intact and in a closed position (nothing clogging valve).

3. Inspect the hull.

- a. Ensure the deck and hull have been cleaned with fresh water and soap and the area is thoroughly dry.
- b. Check that the drain ports are not clogged.
- c. Open the drainage hole caps to evacuate water.

4. Maintain stainless steel parts.

- a. Wash stainless steel parts with fresh water after each use.
- b. Grease or polish stainless steel parts after each use.

Note:

Avoid scouring stainless steel surfaces.
Avoid contact with iron tools. Use chrome tools instead.

5. Maintain the seats.

- a. Wash upholstery with soap and water.
- b. Dry thoroughly with rags or towels.
- c. Repair any damage immediately to prevent deterioration. Patch with a vinyl material and PVC adhesive until a professional repair can be made (Refer to Step 6).

CAUTION

Do NOT expose repairs to the sun or rain.
Do NOT leave the adhesive tube next to a heat source or direct flames.
Always work in a well-ventilated area when using adhesives.
Avoid contact with the skin or eyes, swallowing it, or inhaling adhesive vapors.

6. Repair damages.

- a. Tears less than 50 millimeters (mm) (2 inches)

(1) Choose a suitable patch from the repair kit that overlaps the tear by a minimum of 25mm (1 inch) all around.

Note: Choosing a repair patch that is too small will cause it to blister when the tube is inflated.

(2) Use a wax crayon to mark around the area to be repaired, using the patch as a guide.

(3) Clean the contact surfaces of the patch and the area to be repaired with abrasive paper.

(4) Wipe and dust particles from both surfaces and make sure they are completely dry.

(5) Apply two coats of adhesive (from the blue adhesive tube) to both surfaces, allowing the first coat to dry thoroughly before applying the second coat.

Note: The shelf life for the adhesive in the tube is one year.

(6) Allow the second coat to dry to a "tacky" condition (5 to 10 minutes).

(7) Apply the patch, ensuring there are no creases or bubbles.

(a) Smooth out the patch with a spatula-shaped tool (e.g., the end of a spoon).

(b) Work from the center of the patch towards the outside edges.

b. Tears larger than 50mm (2 inches)

Note: Tears larger than 50mm (2 inches) will require a patch applied both inside and outside the buoyancy tube. It is recommended that repairs of this kind are carried out by experienced, qualified service agents.

NOTE: After the repair has been made, allow at least 12 hours before inflating.

c. Slow punctures

(1) Trace the leak by painting over the area with a soapy lather.

(2) Mark the spot where bubbles develop.

(3) Follow the repair instructions in Section 6a or 6b above.

d. Small repairs on the hull.

(1) Remove or reduce small scratches with polish or other appropriate products.

(2) Remove deeper scratches with polyester gel.

Note: For major repairs, refer to unit maintenance or a qualified service agent.

7. Store the RIB.

a. Store the RIB in a clean, dry place that is not affected by major variations in temperature and other damaging factors.

b. Store the boat with the tube lights lightly inflated.

Note: If this is not possible, fold the tubes down into the glass fiber section of the hull and tie them loosely in position.

c. Maintain the engine as instructed by the engine manufacturer prior to storing.

Note:

For long-term storage in the sun (especially in tropical regions), protect the boat with a breathable canvas covering. Store away from rodents.

If the boat is stored inflated, make sure it is not subjected to deformations.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Mark each performance measure either GO or NO GO. Mark the Soldier GO if all performance measures are met. All measures must be marked GO to receive an overall GO on the task. Mark the Soldier NO GO if any performance measure is not met. If the Soldier is marked a NO GO, inform the Soldier what was done incorrectly and how to perform the task to standard.

Evaluation Preparation: Safety precautions must be adhered to when performing the task listed in accordance with the prescribed technical manual (TM). Ensure that all LOCKOUT/TAG OUT procedures are followed. Ensure that all required equipment to perform this task is available. Brief Soldier to perform preventive maintenance checks and services on the Rigid Hull Inflatable Boat (RHIB).

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Performed routine inspections.			
2. Cleaned the buoyancy tube with the proper materials.			
3. Inspected the hull.			
4. Maintained stainless steel parts.			
5. Maintained the seats.			
6. Repaired any damages using the correct materials and procedures.			
7. Stored the RIB properly.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 55-1905-223-10	Operator's Manual for Landing Craft, Utility (LCU 2000 CLASS) (NSN 1905-01-154-1191) (Reprinted W/Basic Incl C1-9) (This item is included on EM 0273)	Yes	No
	TM 55-1915-200-10	Operator's Manual for Logistic Support Vessel (LSV) (NSN 1915-01-153-8801) (Reprinted W/Basic Incl C1-6)	No	No
	TM 55-1925-207-10-1	Inland and Coastal Large Tug	No	No
	TM 55-1925-232-24&P	UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR LIFE RAFT/WORK BOAT FOR LARGE TUG (LT) (NSN 1925-01-247-7110) (THIS	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer 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, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. 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 :

Task Number	Title	Proponent	Status
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052-204-1108	Inspect Safety Equipment	052 - Engineer (Individual)	Superseded
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Supporting Individual Tasks : None

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-881-8132	Identify All Vessel Systems	551 - Transportation (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
55-2-1508	Conduct Vessel Operations	55 - Transportation (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
MOS 88K Watercraft Operator SL 4	Enlisted	MOS: 88K, Skill Level: SL4, Duty Pos: TFJ
88L40 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL4, Duty Pos: TGB, LIC: EN, SQI: O
MOS 88K Watercraft Operator SL3	Enlisted	MOS: 88K, Skill Level: SL3, Duty Pos: TAV
88L30 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL3, Duty Pos: TFR, LIC: EN