

**DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD**

U.S. COAST GUARD (G-MMT-3)
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 6-81

Subj: Lifeboat Weight Tests

1. PURPOSE. This Circular is intended to provide information to vessel owners/operators and Officers in Charge, Marine Inspection on an acceptable method of expediting the lifeboat weight test by the use of a test waterline marked inside the boat. This method applies only to boats tested by filling with water until the total boat weigh equals the required test weight. The lifeboat weight test is required' biennially on tank vessels (46 CFR 33.01-27), cargo vessels (46 CFR 91.25-15(a)(2)), and oceanographic vessels (46 CFR 189.2)), and annually on passenger vessels (46 CFR 71.25-15(a)(2)) and public nautical school ships (46 CFR 167.35-15).
2. DISCUSSION.
 - a. In order to comply with the requirements for a lifeboat weight test, some open lifeboats are filled with water until the boat reaches the required test weight. This method cannot be used for totally enclosed lifeboats, or for some open lifeboats where' the addition of water would cause damage to the mechanical parts of the boat (see Section 31-3-30B(3) of the Marine Safety Manual for more details).
 - b. If water is used, it is necessary to attach load cells to each of the falls, use calibrated meters to determine the amount of water added to the boat, or use some other means to determine how much water is added in order to determine when the boat has reached the required weight. The process of taking measurements and making calculations is frequently time consuming for both owner/operators and Coast Guard inspectors, and it is repeated each time the lifeboat weight test is made. In order to simplify and expedite the process, a validated test waterline may be marked in the boat in the course of a weight test and used at subsequent weight tests.
3. ACTION. Owner/operators that use water for the lifeboat; weight test may expedite the test by means of a test waterline in accordance with the following procedures:
 - a. Remove all equipment from non-watertight lockers.
 - b. Add water to the boat until the boat reaches the test weight. The method of determining the amount of water required must be acceptable to the Officer in Charge, Marine Inspection.
 - c. Mark the waterline on each side of the boat interior at a point approximately midway between bow and stern.
 - d. When the boat is drained, paint a white line 6 to 12 inches long at both marks.

- e. Prepare a brass, stainless steel, or marine aluminum alloy plate that contains the following information:
- (1) A scribed horizontal line to indicate water level.
 - (2) "WEIGHT TEST WATERLINE" followed by "(SALTWATER)" or ¹(FRESHWATER)" as appropriate.
 - (3) Date indicated as month and year.
 - (4) "USCG" followed by room for the inspector' 5 propeller stamp and three Marine Inspection Office identification letters (see 46 CFR 50.10-25 and -30).
 - (5) Any equipment that must be removed other than that stowed in non-watertight lockers.
- f. Attach the plate near one of the waterlines so that the scribed line on the plate is even with the painted waterline. Attachment of the plate must be by permanent means such as blind rivets or epoxy bonding. If the plate must be attached to the exterior of a watertight food or water tank, the method of attachment must not penetrate the tank.
- g. When the Coast Guard inspector is satisfied with the waterline marking, the inspector will affix the propeller stamp and Marine Inspections Office identification letters to the plate.
- h. In the course of subsequent lifeboat inspections, Coast Guard inspectors will accept loading to the marked waterline in lieu of actual weighing or calculation of water weight. Unless the plate described in subparagraph e. notes an exception, use of water for the weight test requires removal of all equipment from non-watertight lockers.



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