

§ 108.553

46 CFR Ch. I (10-1-13 Edition)

(2) The OCMI may allow a reduction in the total number of survival craft meeting this requirement when the unit is in the transit mode and the number of personnel on board is reduced. In such cases, sufficient survival craft must be available for use by the total number of personnel remaining on board.

(d) Each lifeboat of aluminum construction in the hull or canopy, and each aluminum launching appliance must be protected in its stowage position by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(e) With the exception of the secondary means of launching for free-fall lifeboats, each launching appliance together with all its lowering and recovery gear must be arranged in a way that the fully equipped survival craft it serves can be safely lowered when loaded with its full complement of persons, and also without persons, against—

(1) A list of up to 20 degrees on the high side; and

(2) A list of up to 20 degrees or the degree of list where the survival craft becomes waterborne, whichever, is the greater, on the low side.

(f) When the unit is under any unfavorable condition such as maximum airgap, lightest transit or operational condition, or any damaged condition under part 174, subpart C of this chapter,—

(1) Notwithstanding the requirements under §108.550(e), survival craft launching appliances and marine evacuation systems must be capable of operation;

(2) Falls, where used, must be long enough for survival craft to reach the water; and

(3) Lifeboats with an aggregate capacity that will accommodate the total number of persons permitted on board must be capable of being launched safely, and clear of any obstruction. The location and orientation of each lifeboat must be such that the lifeboat is either headed away from the unit upon launching, or can be turned to a heading away from the unit immediately upon launching.

(g) A launching appliance must not depend on any means other than gravity or stored mechanical power independent of the unit's power supplies to

launch the survival craft it serves, in the fully loaded and equipped conditions, and also in the light condition.

(h) Each launching appliance's structural attachment to the vessel must be designed, based on the ultimate strength of the construction material, to be at least 4.5 times the load imparted on the attachment by the launching appliance and its fully loaded survival craft under the most adverse combination of list and trim under paragraph (b) of this section.

(i) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the unit; and

(4) The preparation and handling of survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station.

(j) Each launching mechanism must be arranged so it may be actuated by one person from a position on the unit's deck, and also from a position within the survival craft. Each launching and recovery arrangement must allow the operator on the deck to observe the survival craft at all times during launching.

(k) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during abandonment.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended by USCG-2010-0048, 76 FR 62973, Oct. 11, 2011]

§ 108.553 Survival craft launching and recovery arrangements using falls and a winch.

Survival craft launching and recovery arrangements, in addition to meeting the requirements in §108.550, must meet the following requirements:

(a) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(b) The breaking strength of each fall wire and each attachment used on the fall must be at least six times the load

imparted on the fall by the fully-loaded survival craft.

(c) Each fall must be long enough for the survival craft to reach the water with the unit in its lightest seagoing condition, under unfavorable conditions of trim and with the unit listed not less than 20 degrees either way.

(d) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, payout wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap, and a multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.

(f) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(g) The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

(1) $S = 0.4 + (0.02 H)$, where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition, with H not greater than 30, regardless of the lowering height.

(2) $S = 79 + (1.2 H)$, where S is the speed of lowering in feet per minute, and H is the height in feet, with H not greater than 99.

(h) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(i) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

(j) If a survival craft is recovered by electric power, the electrical installation, including the electric power-operated boat winch, must meet the requirements in subchapter J of this chapter. If a survival craft is recovered by any means of power, including a portable power source, safety devices must be provided which automatically cut off the power before the davit arms

or falls reach the stops in order to avoid overstressing the falls or davits, unless the motor is designed to prevent such overstressing.

(k) Each launching appliance must be fitted with brakes that meet the following requirements:

(1) The brakes must be capable of stopping the descent of the survival craft or rescue boat and holding it securely when loaded with its full complement of persons and equipment.

(2) The brake pads must, where necessary, be protected from water and oil.

(3) Manual brakes must be arranged so that the brake is always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the off position.

§ 108.555 Lifeboat launching and recovery arrangements.

Lifeboat launching and recovery arrangements, in addition to meeting the requirements in §§ 108.550 and 108.553, must meet the following requirements:

(a) Each lifeboat must be capable of being launched with the unit making headway of 5 knots in calm water, or with the unit anchored or bearing on the bottom in a current of up to 5 knots. A painter may be used to meet this requirement.

(b) Each lifeboat must be provided with a launching appliance. The launching appliance must be capable of launching and recovering the lifeboat with its crew.

(c) Each launching appliance arrangement must allow the operator on the unit to observe the lifeboat at all times during recovery.

(d) Each launching appliance arrangement must be designed to ensure persons can safely disembark from the survival craft prior its stowage.

[CGD 84-069, 61 FR 25291, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 108.557 Free-fall lifeboat launching and recovery arrangements.

(a) The launching appliance for a free-fall lifeboat must be designed and installed so that the launching appliance and the lifeboat it serves operate as a system to protect the occupants from harmful acceleration forces and to effectively clear the unit.