

**§ 160.033-1**

**46 CFR Ch. I (10-1-11 Edition)**

diagrams and calculations relative to the strength of the davit, and a complete bill of material setting forth the physical properties of all materials used shall be submitted to the Commandant through the Commander of the Coast Guard District having jurisdiction over the construction of the davit.

(b) If the drawings required in paragraph (a) of this section are satisfactory the Commander of the Coast Guard District in which the davits are to be built shall be notified in writing when fabrication is to commence. An inspector will be assigned to supervise the construction in accordance with the plans and upon completion conduct the tests required by § 160.032-5.

(c) At the time that the tests are successfully completed, the manufacturer shall present to the inspector four corrected copies of the plans noted in paragraph (a) of this section, including any corrections, changes, or additions which may have been found necessary during construction or testing. If the manufacturer desires more than one set of approved plans, additional copies shall be submitted at that time.

(d) Upon receipt of corrected drawings and satisfactory test report, the Commandant will issue a certificate of approval. No change shall be made in the design or construction without first receiving permission of the Commandant via the Commander of the Coast Guard District in which the davits are built.

[CGFR 49-18, 14 FR 5113, Aug. 17, 1949]

**Subpart 160.033—Mechanical Disengaging Apparatus, Lifeboat, for Merchant Vessels**

**§ 160.033-1 Applicable specifications.**

(a) *Specifications.* The following specifications of the issue in effect on the date mechanical disengaging apparatus is manufactured form a part of this subpart.

(1) Coast Guard specifications:

160.035, Specification for Lifeboats for Merchant Vessels.

(b) *Copies on file.* A copy of the specification regulations referred to in this section shall be kept on file by the

manufacturer, together with the approved plans and certificate of approval. They shall be kept for a period consisting of the duration of approval and 6 months after termination of approval. The specification may be obtained from the Commandant (CG-521), U.S. Coast Guard, 2100 2nd St., SW., Stop 7126, Washington, DC 20593-7126.

[CGFR 49-18, 14 FR 5113, Aug. 17, 1949, as amended by CGFR 65-16, 30 FR 10899, Aug. 21, 1965; CGD 88-070, 53 FR 34535, Sept. 7, 1988; CGD 95-072, 60 FR 50467, Sept. 29, 1995; CGD 96-041, 61 FR 50733, Sept. 27, 1996; USCG-2009-0702, 74 FR 49237, Sept. 25, 2009]

**§ 160.033-2 General requirements for mechanical disengaging apparatus.**

(a) The requirements of this subpart apply to all new construction. Mechanical disengaging apparatus approved and in use prior to the regulations in this subpart may be continued in service if in satisfactory condition.

(b) Mechanical disengaging apparatus installed in approved lifeboats shall be designed to release both ends of the lifeboat simultaneously under tension.

(c) Other types of mechanical disengaging apparatus will be considered for lifeboats fitted on vessels operating on waters other than ocean, coastwise or Great Lakes, or for vessels of 3,000 gross tons and under operating in ocean, coastwise or Great Lakes service.

[CGFR 49-18, 14 FR 5113, Aug. 17, 1949, as amended by CGFR 60-36, 25 FR 10637, Nov. 5, 1960]

**§ 160.033-3 Construction of mechanical disengaging apparatus.**

(a) Mechanical disengaging apparatus shall be of such strength that the lifeboat in which installed may be safely lowered with its full complement of persons and equipment. A minimum factor of safety of six on the ultimate strength of the materials used shall be maintained at all times based on the approved working load per hook.

(b) Mechanical disengaging apparatus shall be designed to release both ends of the lifeboat simultaneously under tension, which shall be effected by partially rotating a shaft which shall be continuous and extend from point of contact with the hooks. The control effecting the rotation of the shaft shall

be painted bright red and shall have thereon in raised letters the words "DANGER—LEVER DROPS BOAT". The control shall be readily accessible, secured to a permanent part of the lifeboat structure, and so installed as not to interfere with the inspection of any removable parts of the lifeboat or its equipment.

(c) If closed type hooks are used, arrangements shall be made to effect the release of the falls in the event that the gear is inoperable.

(d) Positive means of lubrication shall be provided for all bearings.

(e) Welding, when employed, shall be performed by welders certified by the U. S. Coast Guard, American Bureau of Shipping, or U. S. Navy Department, and the electrodes used shall be of an approved type.

(f) The manufacturer shall furnish mill or foundry affidavits relative to the physical and chemical properties of the materials used.

[CGFR 49-18, 14 FR 5113, Aug. 17, 1949, as amended by CGFR 52-10, 17 FR 2365, Mar. 19, 1952; CGFR 57-27, 22 FR 4021, June 7, 1957]

**§ 160.033-4 Inspection and testing of mechanical disengaging apparatus.**

(a) *Inspection.* Mechanical disengaging apparatus shall be inspected during the course of construction to determine that the arrangement and materials entering into the construction are in accordance with the approved plans.

(b) *Factory tests for initial approval.* (1) Mechanical disengaging apparatus shall be tested to destruction in a jig built in accordance with the drawing required in § 160.033-5(a). This test shall be conducted in the presence of an inspector.

(2) Universal connections used to transmit the release power from the throw lever to the hook release shall be set up in a jig with the angles of leads set at 0.30, and 60 degrees, respectively. A load of 200 pounds shall be applied at the end of a lever arm 24 inches long. This load shall be applied with the connecting rod secured beyond the universal and with the lever arm in the horizontal position. This test shall demonstrate that the universals have strength adequate for the purpose intended. There shall be no permanent

set, or undue stress as a result of this test. Consideration will be given to arrangements other than universals submitted for this transmission of power.

(c) *Installation test prior to passing first unit installed.* (1) Each new type or arrangement of mechanical disengaging apparatus shall be tested by suspending a lifeboat loaded with deadweight equivalent to the number of persons allowed in the lifeboat (165 pounds per person) together with the weight of the equipment, plus 10 percent of the total load. The release lever shall then be thrown over with this load suspended until the lifeboat is released. This test shall demonstrate the efficiency of the installation in an actual lifeboat. (This test may be conducted ashore by suspending the lifeboat just clear of the ground.)

(d) *Factory testing after approval.* (1) In general, no factory tests after approval are required. However, each lifeboat in which mechanical disengaging apparatus is fitted shall be tested in accordance with § 160.035-13(a) of subpart 160.035.

(e) *Name plate.* A corrosion resistant name plate shall be attached to each hook assembly giving the manufacturer's name, approval number, and approved working load (as installed).

[CGFR 49-18, 14 FR 5113, Aug. 17, 1949, as amended by CGFR 52-10, 17 FR 2365, Mar. 19, 1952; CGFR 65-9, 30 FR 11467, Sept. 8, 1965]

**§ 160.033-5 Procedure for approval of mechanical disengaging apparatus.**

(a) Before action is taken on any design of mechanical disengaging apparatus, detailed plans covering fully the arrangement and construction of the apparatus, together with stress diagrams and calculations relative to the strength, proposed test jig to be used in the test prescribed in § 160.033-4(b)(1), and a complete bill of material setting forth the physical and chemical properties of all the materials used shall be submitted to the Commandant through the Commander of the Coast Guard District having jurisdiction over the construction of the mechanical disengaging apparatus.

(b) If the drawings required in paragraph (a) of this section are satisfactory, the Commander of the Coast