

number for the gun, the official Coast Guard approval number, and the name of the manufacturer. The gun stock shall have recessed in it a brass or other corrosion-resistant plate showing legible maintenance instructions for the care of the gun and its parts to prevent corrosion. After the proof test, the gun barrel shall be marked with the letters "P.T." and the name or mark of the company.

(b) *Projectile*. Projectiles shall be permanently and legibly marked with the name of the manufacturer.

(c) *Line and container*. The end of a service line intended to be attached to the projectile shall have securely attached thereto a substantial tag bearing a permanent legend indicating its purpose, and the other end of the line shall be tagged in the same manner to prevent delay in securing proper and immediate action with the equipment. The container of new service lines shall bear the name of the manufacturer, date of manufacture, and a statement to the effect that in all respects the line meets the requirements of this subpart for service lines. Line canisters and reels shall bear the name of the manufacturer.

§ 160.031-7 Procedure for approval.

(a) Shoulder gun line throwing appliances are approved by the Coast Guard under the procedures in subpart 159.005 of this chapter.

(b) [Reserved]

Subpart 160.032—Davits for Merchant Vessels

§ 160.032-1 Applicable specifications.

(a) *Specifications*. The following specifications of the issue in effect on the date the davits are manufactured form a part of this subpart:

(1) Standards of ASTM:

ASTM A 27/ A 27M-95, Standard Specification for Steel Castings, Carbon, for General Application—160.032-3

ASTM A 36/A 36M-97a, Standard Specification for Carbon Structural Steel—160.032-3
ASTM A 216/A 216M-93 (1998), Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding for High-Temperature Service—160.032-3

(b) *Copies on file*. Copies of the specification standards referred to in this

section shall be kept on file by the manufacturer, together with the approved plans and certificate of approval. You may purchase the standards of ASTM from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

[CGFR 65-9, 30 FR 11466, Sept. 8, 1965; as amended by USCG-1999-5151, 64 FR 67183, Dec. 1, 1999]

§ 160.032-2 General requirements for davits.

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

(b) Davits may be either of the mechanical or gravity types.

(1) Mechanical davits shall be designed to be swung out by screws, gears, or other means, using manual power for operation. Radial type davits with mechanical means for operating are not acceptable under this category.

(2) Gravity davits shall be designed to be swung out without the use of manual, electric, steam, or other power supplied by the vessel.

(3) Other types of davits will be given special consideration.

(c) Davits shall be so designed that it will not be necessary to take up or slack the falls in order to crank out the davits.

(d) For the purpose of calculations and conducting tests, the weight of the persons shall be taken at 165 pounds each.

(e) The requirements of this subpart shall be complied with unless other arrangements in matters of construction details, design, strength, equivalent in safety and efficiency are approved by the Commandant.

[CGFR 49-18, 14 FR 5112, Aug. 17, 1949]

§ 160.032-3 Construction of davits.

(a) *Strength required*. Davits shall be of such strength that the lifeboat may be lowered safely with its full complement of persons and equipment, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim. A minimum factor of safety of 6 on the ultimate strength of

§ 160.032-4

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

the materials shall be maintained at all times based on the approved working load.

(b) *Turning out.* (1) Mechanical davits shall be designed so that they may be operated from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim.

(2) Gravity davits shall be designed so that they may be operated automatically from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim. This operation shall be accomplished by merely releasing the brake of the lifeboat winch.

(c) *Materials.* (1) Structural steel made by the open-hearth or electric furnace process shall be in accordance with ASTM A 36/A 36 M (incorporated by reference, see §160.032-1).

(2) Steel castings not intended for fusion welding shall be in accordance with ASTM A 36/A 36 M (incorporated by reference, see §160.032-1), Grades U-60-30, 60-30, 65-30, 65-35, and 70-36.

(3) Steel castings intended to be fabricated by fusion welding shall be in accordance with ASTM Standard Specification A 216 (incorporated by reference, see §160.032-1), Grades WCA and WCB.

(4) Cast iron shall not be used in the construction of davits.

(5) Special consideration shall be given to the use of other materials. Proper affidavits concerning these materials will be required.

(d) *Bearings.* Bearings of davits shall be of non-ferrous metal, or shall be of the roller or ball-bearing type. Positive means of retaining the bearings in position and of lubricating same shall be provided except that self-lubricated bearings in sheaves of manila rope blocks will be acceptable. The manufacturer shall furnish a lubrication chart for each davit together with a plate attached to the davit indicating the lubricants recommended for extremes in temperature.

(e) *Guards.* All moving parts shall have suitable guards.

(f) *Welding.* 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.

[CGFR 49-18, 14 FR 5112, Aug. 17, 1949, as amended by CGFR 65-16, 30 FR 10898, Aug. 21, 1965; CGFR 65-9, 30 FR 11466, Sept. 8, 1965; USCG-1999-5151, 64 FR 67184, Dec. 1, 1999; USCG-2000-7790, 65 FR 58463, Sept. 29, 2000]

§ 160.032-4 Capacity of davits.

(a) Davits shall be approved for a working load after it has been demonstrated by detailed calculations that this working load can be carried with a minimum factor of safety of six based on the ultimate strength of the materials. It will also be necessary to conduct the tests specified in §160.032-5.

(b) [Reserved]

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

§ 160.032-5 Inspection and testing of davits.

(a) *Material testing.* (1) Where davit arms and frames are fabricated of steel castings, an inspector shall be present at the foundry where such castings are made to witness the tests prescribed by the applicable specification. The manufacturer shall furnish an affidavit stating that the material complies with the requirement of the specification noted in §160.032-3(c) (2) or (3). The inspector shall stamp the casting with the letters U.S.C.G., the Marine Inspection Office identification letters, the letters F.T., and the date of inspection.

(2) The manufacturer shall furnish an affidavit stating that the structural steel complies with the requirements of the specification noted in §160.032-3(c)(1).

(3) The affidavits referred to above shall be obtained from the foundry or mill supplying the material.

(b) *Factory tests for initial approval.* (1) Mechanical davits shall be tested for strength and operation at the place of manufacture in the presence of an inspector. The davits shall be completely assembled. The tests to be conducted are as noted in paragraphs (b) (2) through (4) of this section.

(2) A weight equal to 2.2 times the working load shall be suspended from the eye or end of the davit arm. With