

§ 160.010-2

MILITARY SPECIFICATIONS

MIL-P-19644 C—Plastic Molding Material (Polystyrene Foam, Expanded Bead).

MIL-R-21607 C—Resins, Polyester, Low Pressure Laminating, Fire Retardant.

MIL-P-21929 B—Plastic Material, Cellular Polyurethane, Foam-In-Place, Rigid (2 and 4 Pounds per Cubic Foot).

MIL-P-40619 A—Plastic Material, Cellular, Polystyrene (For Buoyancy Applications).

[CGD 79-167, 47 FR 41372, Sept. 20, 1982, as amended by CGD 95-072, 60 FR 50467, Sept. 29, 1995; CGD 96-041, 61 FR 50733, Sept. 27, 1996]

§ 160.010-2 Definitions.

Buoyant apparatus. Buoyant apparatus is flotation equipment (other than lifeboats, liferafts, and personal flotation devices) designed to support a specified number of persons in the water, and of such construction that it retains its shape and properties and requires no adjustment or preparation for use. The types of buoyant apparatus generally in use are the box-float type and the peripheral-body type defined in paragraphs (b) and (c) of this section.

Box-float. Box-float is buoyant apparatus of a box-like shape.

Commandant (G-MSE-4). Commandant (G-MSE-4) is the Chief of the Life-saving and Fire Safety Standards Division, Marine Safety and Environmental Protection.

Peripheral-body. Peripheral body is buoyant apparatus with a continuous body in the shape of either an ellipse or rectangle with a circular, elliptical, or rectangular body cross-section.

Inflatable buoyant apparatus. An inflatable buoyant apparatus is flotation equipment that depends on inflated compartments for buoyancy and is designed to support a specified number of persons completely out of the water.

[CGD 79-167, 47 FR 41372, Sept. 20, 1982, as amended by CGD 95-072, 60 FR 50466, Sept. 29, 1995; CGD 96-041, 61 FR 50733, Sept. 27, 1996; CGD 85-205, 62 FR 25545, May 9, 1997]

§ 160.010-3 Inflatable buoyant apparatus.

(a) **Design and performance.** To obtain Coast Guard approval, an inflatable buoyant apparatus must comply with subpart 160.151, with the following exceptions:

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(1) **Canopy requirements (SOLAS Chapter III, regulation 38, paragraph 1.5 (III/38.1.5)).** It does not need a canopy.

(2) **Capacity (Regulation III/38.2.1).** The carrying capacity must be not less than four persons.

(3) **Floor insulation (Regulation III/39.2.2).** The floor may be uninsulated.

(4) **Stability (Regulation III/39.5.1).** It does not need stability pockets.

(5) **Righting (Regulation III/39.5.2).** A reversible one does not need arrangements for righting.

(6) One with a capacity of 13 or more persons must be reversible, with the floor arranged between the buoyancy chambers so that the apparatus can, floating either side up, accommodate the number of persons for which it is approved. One with a capacity of 12 or fewer persons must either be reversible in the same manner, or be designed so that it can be readily righted by one person.

(7) One with a capacity of 25 or more persons must be provided with self-bailing floor drains. If the floor of a reversible one includes one or more drains, each drain must be arranged to completely drain the floor of water when the device is fully loaded, and must prevent water from flowing back onto the floor.

(8) If the buoyancy tubes are not vivid reddish orange, vivid yellow, or a fluorescent color of a similar hue, panels of such hue must be secured to the buoyancy chambers so that a minimum of 1 m² (11 ft²) is visible from above the apparatus when it is floating either side up.

(9) **Boarding ramp (Regulation III/39.4.1).** Boarding ramps are not required if the combined cross-section diameter of the buoyancy chambers is 500 millimeters (mm) (19.5 in.) or less. An apparatus with a combined cross-section diameter greater than 500 mm (19.5 in.) requires boarding ramps as follows:

(i) For an apparatus with a capacity of less than 25 persons, at least one ramp must be provided;

(ii) For an apparatus with a capacity of 25 or more persons, at least two ramps must be provided; and

(iii) The boarding ramps required by this paragraph must allow persons to board with either side of a reversible

apparatus floating up, or the full number of ramps required must be installed on each side.

(10) *Boarding ladder (Regulation III/39.4.2)*. Boarding ladders must be provided on each inflatable buoyant apparatus as follows:

(i) One ladder must be provided on each apparatus with a capacity of less than 25 persons, except that, for an apparatus with a capacity of 13 or more persons that is not equipped with a boarding ramp, two ladders must be provided.

(ii) Two ladders must be provided on each apparatus with a capacity of 25 or more persons.

(iii) The ladders required by this paragraph must allow persons to board with either side of a reversible apparatus floating up, or the full number of ladders required must be installed on each side.

(11) One or more exterior canopy lamps meeting the requirements of § 160.151-15(n) of this subchapter must be provided such that—

(i) On a non-reversible inflatable buoyant apparatus, one lamp is mounted so that it is on the uppermost surface of the floating apparatus; and

(ii) On a reversible apparatus, two lamps are mounted so that one lamp is on the uppermost surface of the apparatus, whichever side is floating up.

(12) *Equipment (Regulation III/38.5.1)*. All equipment required by this paragraph must be either packed in a container accessible to the occupants, or otherwise secured to the apparatus. Duplicate equipment must be provided, for each side of a reversible inflatable buoyant apparatus, if the equipment is not accessible from both sides. In lieu of the equipment specified in § 160.151-7(b) and Regulation III/38.5.1, each apparatus must be provided with—

(i) *Rescue quoit and heaving line*. One rescue quoit and a heaving line as described in § 160.151-21(a) on each apparatus with a capacity of less than 25 persons; or two on each apparatus for a capacity of 25 or more persons. The heaving line(s) must be mounted adjacent to a boarding ramp (or boarding ladder, if no ramps are installed), and ready for immediate use;

(ii) *Knives*. Two buoyant safety knives ready for use near the painter attachment;

(iii) *Bailer*. One bailer as described in § 160.151-21(c) on each apparatus with a capacity of less than 25 persons; or two bailers on each apparatus with a capacity of 25 or more persons, except that no bailers are necessary if both sides of the floor of a reversible apparatus are equipped with drains;

(iv) *Sponge*. One sponge as described in § 160.151-21(d) on each apparatus with a capacity of less than 25 persons, or two sponges on each apparatus with a capacity of 25 or more persons;

(v) *Paddles*. Two paddles as described in § 160.151-21(f) on each apparatus with a capacity of less than 25 persons, or four paddles on each apparatus with a capacity of 25 or more persons;

(vi) *Flashlight*. One flashlight with spare batteries as described in § 160.151-21(m);

(vii) *Signaling mirror*. One signaling mirror as described in § 160.151-21(o);

(viii) *Repair outfit*. One set of sealing clamps or plugs as described in § 160.151-21(y)(1);

(ix) *Pump or bellows*. One pump or bellows as described in § 160.151-21(z); and

(x) *Sea anchor*. One sea anchor as described in § 160.151-21(e), attached so as to be readily deployable when the apparatus inflates.

(13) *Marking and labeling (Regulations III/39.7.3.4, III/39.7.3.5, and III/39.8.6)*. Marking and labeling of inflatable buoyant apparatus must be in accordance with the requirements of § 160.151-33, except that the device must be identified as an "INFLATABLE BUOYANT APPARATUS", and no "SOLAS" markings shall be placed on the container of the apparatus. The capacity marking specified in regulation III/39.8.6 must be applied to the top of each buoyancy tube.

(14) *Drop test*. The drop test required under paragraph 1/5.1 of IMO Resolution A.689(17) and § 160.151-27(a) may be from a lesser height, if that height is the maximum height of stowage marked on the container.

(15) *Loading and seating test*. For the loading and seating test required under paragraph 1/5.7 of IMO Resolution A.689(17) and § 160.151-27(a), the loaded

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freeboard of the apparatus must be not less than 200 mm (8 in.).

(16) *Cold-inflation test.* The cold-inflation test required under paragraph 1/5.17.3.3.2 of IMO Resolution A.689(17) and § 160.151-27(a) must be conducted at a test temperature of -18 °C (0 °F).

(b) *Production inspections and tests.* Production inspections and tests for inflatable buoyant apparatus must be performed in accordance with the applicable requirements of § 160.151-31.

(c) *Servicing.* Inflatable buoyant apparatus must be serviced periodically at approved servicing facilities in accordance with the applicable requirements of §§ 160.151-35 through 160.151-57.

(d) *Instruction placard.* An instruction placard meeting the requirements of § 160.151-59(c), giving simple procedures and illustrations for inflating, launching, and boarding the inflatable buoyant apparatus, must be made available to the operator or master of each vessel on which the apparatus is to be carried.

(e) *Requirements for "open reversible life rafts" under the IMO International Code of Safety for High-Speed Craft (HSC Code).* To be approved as meeting the requirements for open reversible life rafts in Annex 10 to the HSC Code, an inflatable buoyant apparatus must meet all of the requirements in paragraphs (a) through (d) of this section, with the following exceptions:

(1) The apparatus must be reversible regardless of size.

(2) The surface of the buoyancy tubes must be of a non-slip material. At least 25 percent of the surface of the buoyancy tubes must meet the color requirements of § 160.151-15(e).

(3) The length of the painter should be such that the apparatus inflates automatically upon reaching the water.

(4) An additional bowing-in line must be fitted to an apparatus with a capacity of more than 30 persons.

(5) The apparatus must be fitted with boarding ramps regardless of size.

(6) An apparatus with a capacity of 30 or fewer persons must be fitted with at least one floor drain.

(7) In addition to the equipment specified in § 160.010-3(a)(12), the apparatus must be provided with—

(i) *Sponge.* One additional sponge as described in § 160.151-21(d) on each apparatus with a capacity of less than 25 persons;

(ii) *First-aid kit.* A first-aid kit approved by the Commandant under approval series 160.054;

(iii) *Whistle.* A ball-type or multi-tone whistle of corrosion-resistant construction;

(iv) *Hand flares.* Two hand flares approved by the Commandant under approval series 160.121.

(8) Marking and labeling of the apparatus must be in accordance with § 160.151-33, except that the device must be identified as a "NON-SOLAS REVERSIBLE", and the equipment pack must be identified as an "HSC Pack".

[CGD 85-205, 62 FR 25545, May 9, 1997]

§ 160.010-4 General requirements for buoyant apparatus.

(a) Each buoyant apparatus must be capable of passing the tests in § 160.010-7.

(b) Materials not covered in this subpart must be of good quality and suitable for the purpose intended.

(c) Buoyant apparatus must be effective and stable, floating either side up.

(d) Each buoyant apparatus must be of such size and strength that it can be handled without the use of mechanical appliances, and its weight must not exceed 185 kg (400 lb.).

(e) The buoyant material must be as near as possible to the sides of the apparatus.

(f) Each buoyant apparatus must have a life line securely attached around the outside, festooned in bights no longer than 1 m (3 ft.), with a seine float in each bight, unless the line is of an inherently buoyant material and absorbs little or no water. The life line must be at least 10 mm (3/8 in.) diameter and have a breaking strength of at least 5400 N (1215 lb.).

(g) Pendants must be fitted approximately 450 mm (18 in.) apart around the outside of each buoyant apparatus. Each pendant must be at least 6 mm (1/4 in.) diameter, at least 3.5 m (12 ft.) long, secured in the middle, and have a breaking strength of at least 2400 N (540 lb.). Each pendant must be made up in a hank, and the hank secured by not more than two turns of light twine.