

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  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ).

(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 ( $\frac{3}{8}$  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 ( $\frac{1}{4}$  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.

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(h) Each peripheral body type buoyant apparatus without a net or platform on the inside must also have a life line and pendants around the inside.

(i) Synthetic line or webbing must not be used unless it is of a type represented by its manufacturer as ultraviolet light resistant, or it is pigmented in a dark color. A typical method of securing lifelines and pend-

ants to straps of webbing is shown in Figure 160.010-3(i). If webbing is used to secure life lines and pendants, it must be at least 50 mm (2 in.) wide and must have a breaking strength of at least 3.4 kN (750 lb.) for apparatus of under 25 persons capacity, and 6.7 kN (1,500 lb.) for apparatus of 25 persons capacity and higher.

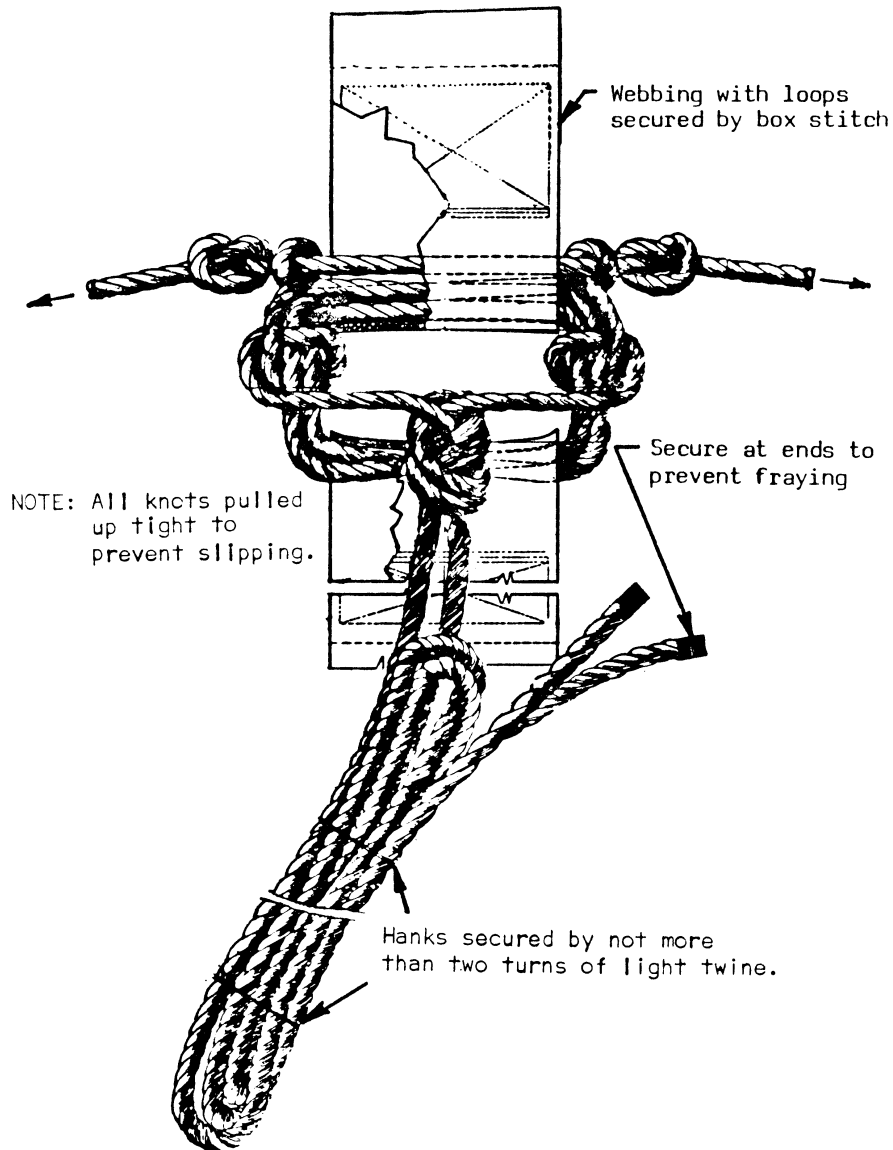


Figure 160.010-3(i)-Acceptable method of rigging a pendant.

(j) Buoyant apparatus must have a fitting with an inside diameter of at least 50 mm (2 in.) for the attachment of a painter.

(k) Each edge and exposed corner must be well rounded. Buoyant apparatus with a rectangular cross-section must have corners rounded to a radius of at least 75 mm (3 in.).

(l) Buoyant apparatus must not have any evident defects in workmanship.

(m) Each metal part of a buoyant apparatus must be—

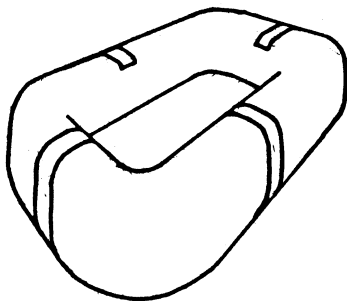
(1) 410 stainless steel or have salt water and salt air corrosion characteristics equal or superior to 410 stainless steel; and

(2) Galvanically compatible with each other metal part in contact with it.

(n) The color of the buoyant apparatus must be primarily vivid reddish orange as defined by sections 13 and 14 of the "Color Names Dictionary."

(o) When fibrous-glass-reinforced plastic is used in the construction of a buoyant apparatus, each cut edge of laminate must be protected from entry of moisture by resin putty or an equivalent method.

(p) Each buoyant apparatus must have Type II retroreflective material meeting subpart 164.018 of this chapter on each side and end. The material must be in strips at least 50 mm (2 in.) wide extending from top to bottom over the side or end and continuing over the top and bottom surfaces of the apparatus. For peripheral body apparatus, each strip must extend completely over the top and bottom surface of the body. For box type apparatus, the strip must extend at least 300 mm (12 in.) inboard from the edge over the top and bottom surface. Each strip must be positioned near the center of the side or end, but so that it is not obscured by any strap. A typical arrangement is shown in Figure 160.010-3(p).



[CGD 79-167, 47 FR 41372, Sept. 20, 1982. Redesignated by CGD 85-205, 62 FR 25545, May 9, 1997]

#### § 160.010-5 Buoyant apparatus with plastic foam buoyancy.

(a) Buoyant apparatus with plastic foam buoyancy must have a plastic foam body with an external protective covering. The body may be reinforced as necessary to meet the tests in § 160.010-7.

(b) Plastic foam used in the construction of buoyant apparatus must be a unicellular type accepted by the Commandant (G-MSE) as meeting one of the following:

(1) Subpart 164.015 of this chapter.

(2) MIL-P-19644.

(3) MIL-P-21929.

(4) MIL-P-40619.

(c) The external protective covering must be—

(1) Fibrous-glass-reinforced plastic, constructed of a polyester resin listed on the current Qualified Products List for MIL-P-21607, or accepted by the Commandant (G-MSE) as meeting MIL-P-21607;

(2) Elastomeric vinyl accepted by the Commandant (G-MSE) as meeting § 160.055-3(j) of this chapter; or

(3) Any other material accepted by the Commandant (G-MSE) as providing equivalent protection for the body of the apparatus.

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

#### § 160.010-6 Capacity of buoyant apparatus.

(a) The number of persons for which a buoyant apparatus is approved must be the lowest number determined by the following methods:

(1) Final buoyancy of the buoyant apparatus in Newtons after the watertight integrity test as described in § 160.010-7 (e) and (f), divided by 145 (divided by 32 if buoyancy is measured in pounds). The divisor must be changed to 180 (40 if buoyancy is measured in pounds) if the apparatus is designed so that persons supported are only partially immersed or where facilities are provided for climbing on top of the apparatus.

(2) Number of 300 mm (1 ft.) increments in the outside perimeter of the buoyant apparatus. The inside edge of