

under the supervision of an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter.

§ 163.003-9 Approval procedure.

(a) *General.* A pilot ladder is approved by the Coast Guard under the procedures in subpart 159.005 of this chapter.

(b) *Approval testing.* Each approval test must be conducted in accordance with § 163.003-21.

(c) *Approval of alternatives.* A pilot ladder that does not meet the materials, construction, or performance requirements of this subpart may be approved if the application and any approval tests prescribed by the Commandant in place of or in addition to the approval tests required by this subpart, show that the alternative materials, construction, or performance is at least as effective as that specified by the requirements of this subpart. The Commandant may also prescribe different production tests if the tests required by this subpart are not appropriate for the alternative ladder configuration.

§ 163.003-11 Materials.

(a) *Suspension members.* Each suspension member must be mildew-resistant manila rope or a dacron polyester rope with a polypropylene core of a color that contrasts with the dacron. Each suspension member must have a breaking strength of not less than 24 kN (5,400 lb.) and a nominal circumference of not less than 60 mm (2¼ in.).

(b) *Wooden parts.* Each wooden part of a pilot ladder must be hardwood that is free from knots and any other defects affecting its strength or durability.

(c) *Wood preservative.* After each wooden part is formed and finished, it must be treated with water-repellant wood preservative that is properly applied.

(d) *Molded steps.* Each step made of molded construction must be rubber or resilient plastic.

(e) *Metal parts.* Each metal fastener must be made of a corrosion resistant metal. Each other metal part must be made of corrosion-resistant metal or of steel galvanized by the hot dip process after the part is formed.

(f) *Plastics.* Each plastic material must be of a type that retains at least 30 percent of its original tensile strength and at least 80 percent of its original impact strength when subjected to the one year outdoor weathering test described in ASTM D 1435.

§ 163.003-13 Construction.

(a) *General.* Each pilot ladder must have two suspension members on each side. Each step in the ladder must be supported by each suspension member.

(b) *Suspension member.* The suspension members of a pilot ladder must meet the following requirements:

(1) Each suspension member must be continuous from the top of the ladder to the bottom and must not be painted or otherwise coated or covered.

(2) Except as provided in paragraph (g) of this section—

(i) The top end of one suspension member on each side of the ladder must extend at least 3 m (10 ft.) beyond the top ladder step; and

(ii) The top ends of the other suspension members must be just above the top step and must have an eye splice or thimble large enough to fit two passes of a suspension member.

(3) The top end of each suspension member that does not have an eye splice or thimble must be served or treated to prevent fraying.

(4) Each pair of suspension members must be clamped together both above and below each step. Marline seizing may not be used.

(5) The clear space between the suspension members on one side of a ladder and those on the other side must be at least 400 mm (16 in.), but not more than 480 mm (19 in.).

(6) The suspension members must not have fittings at the bottom of the ladder that can be used for attaching additional ladder sections.

(c) *Steps.* Pilot ladder steps must meet the following requirements:

(1) The four lowest steps must be molded steps and the rest of the steps must be either wooden or molded steps.

(2) The top face of each step must have a rectangular surface that is at least 115 mm (4½ in.) wide with a non-skid surface that does not retain water. Adhesive non-skid sheets may not be used. (For example, a suitable surface