

§ 160.043-2

be kept on file by the manufacturer, together with the approved plans and certificate of approval.

§ 160.043-2 Type.

(a) The jackknife specified by this subpart shall be of a type as illustrated by Drawing No. 160.043-1(b), which consists of a one-bladed knife fitted with a can opener and a shackle to which a lanyard is attached, all made from materials as specified in this subpart. Alternate arrangements will be given special consideration.

(b) [Reserved]

§ 160.043-3 Materials.

(a) *Blade, can opener, and springs.* The blade shall be made of AISI Type 440B stainless steel, heat treated to show a Rockwell hardness of C55 to C59. The can opener shall be made of AISI Type 420 stainless steel, heat treated to show a Rockwell hardness of C50 to C54. The springs shall be made of AISI Type 420 stainless steel, heat treated to show a Rockwell hardness of C44 to C48.

(b) *Linings and center.* The linings and center shall be hard brass.

(c) *Bolsters and shackle.* The bolsters and shackle shall be 18 percent nickel-silver.

(d) *Handles.* The handles shall be good quality, thermosetting, high impact plastic.

(e) *Rivets and pins.* The rivets and pins shall be either hard brass or 18 percent nickel-silver as specified in this subpart.

(f) *Lanyard.* The lanyard shall be cotton rope, $\frac{1}{8}$ inch nominal diameter.

§ 160.043-4 Construction and workmanship.

(a) *Blade.* The blade shall be not less than 0.095 inch thick at the tang. Shall have a triangular section and sheeps foot point. It shall have a cutting edge approximately $3\frac{1}{8}$ inches in length and shall be approximately $1\frac{3}{16}$ inch in height at the point. The blade shall be uniformly ground and finished on both sides and sharpened to a uniform and keen edge, and it shall have a common nail nick on one side. Before assembling, the sides of the tang shall be uniformly polished.

(b) *Can opener.* The can opener shall be not less than 0.072 inch thick at the

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

tang, and $1\frac{1}{16}$ to $1\frac{5}{16}$ inches long overall. It shall be so designed that the cutting action turns the ragged edge down into the can, and shall be mounted at the same end of the knife as the blade and in such a manner that both rectangular and circular cans may be opened with a minimum of effort when the knife is held in the right hand and operated in a clockwise direction around the can. The cutting edge shall be suitably formed to obtain a smooth cutting action. It shall have a common nail nick on one side, and the extreme distal end shall be pointed. It shall be polished on both sides, and before assembling, the side of the tang shall be polished.

(c) *Springs.* Each spring shall be of a thickness corresponding to the blade it operates, and the back edge and that section of the front edge coming in contact with the end of the tang of the blade shall be polished.

(d) *Linings and center.* Linings and center shall be not less than 0.022 inch in thickness and shall be polished before assembly.

(e) *Bolsters.* The bolsters shall be approximately $\frac{1}{16}$ inch long by 0.100 inch thick measured at the center line.

(f) *Shackle.* The shackle shall be of conventional design, not less than 0.120 inch in diameter, and shall extend not less than $\frac{3}{4}$ inch from the end of the knife. The shackle shall be attached to the knife by a solid nickel-silver pin not less than 0.080 inch in diameter which shall pass through the shackle and be securely fastened.

(g) *Handles.* The handles shall be approximately $3\frac{3}{4}$ inches long. They shall be well fitted at the bolsters and fastened to the linings by two solid rivets countersunk on the inside of the linings and smoothly rounded on the outside.

(h) *Rivets and pins.* Pins holding the handles to the linings shall be of hard brass, not less than 0.048 inch in diameter. Middle and end pins shall be of hard brass not less than 0.095 inch in diameter. The bolster rivet shall be 18 percent nickel-silver not less than 0.095 inch in diameter. All rivets and pins shall have carefully spun heads.

(i) *Lanyard.* A lanyard 6 feet in length shall be secured to the shackle.

(j) *Polishing and oiling.* After assembly all outside surfaces shall be buffed, and the metal parts polished uniformly. The working parts shall be cleaned and oiled with a good grade of joint oil.

(k) *Workmanship.* Workmanship shall be first class in all respects, and jackknives shall be free from defects which may affect their serviceability.

§ 160.043-5 Inspections and tests.

(a) *General.* Jackknives are not ordinarily subjected to regularly scheduled factory inspections, but the Commander of the Coast Guard District in which they are manufactured may detail an inspector at any time to places where jackknives are manufactured to check materials and construction methods, and to conduct such tests as may be required to satisfy himself that jackknives are being manufactured in compliance with the requirements of this specification and the manufacturer's plans and specifications as approved by the Commandant. The manufacturer shall admit the inspector to his plant and shall provide a suitable place and the necessary apparatus for use of the inspector in conducting tests at the place of manufacture.

(b) *Hardness test.* Hardness of the blade, can opener, and spring metal shall be determined in accordance with the Rockwell method as described in Federal Specification QQ-M-151. Hardness impressions shall be made at locations representing the cutting edges and surfaces subject to wear, and they shall fall within the ranges set forth in § 160.043-3(a).

(c) *Bending and drop tests.* With all of the blade of the knife except the tang clamped in vertical jaws so that the handle is in a horizontal position, a downward load of 15 pounds shall be suspended from the lanyard and allowed to hang for a period of 5 minutes. The knife shall then be turned over, and the test repeated with the can opener in the jaws. The knife shall then be dropped on its side from a height of 8 feet onto a concrete floor. Both the blade and the can opener shall open and close properly, and the knife shall show no other evidence of failure at the conclusion of these tests.

(d) *Cutting test.* The knife shall be used to cut various nonmetallic objects, including at least 10 shavings from a strip of oak or other hardwood, and to open various rectangular and circular cans, and shall show no noticeable loss in cutting ability.

§ 160.043-6 Marking and packing.

(a) *General.* Jackknives specified by this subpart shall be stamped or otherwise permanently and legibly marked on the tang of the blade with the manufacturer's name or with a trade mark of such known character that the source of manufacture may be readily determined, and with the manufacturer's type or size designation.

(b) *Instructions for can opener.* With each jackknife the manufacturer shall supply instructions, complete with an illustration, indicating the proper method for using the can opener.

(c) *Packing.* Each jackknife, complete with lanyard attached, shall be packed in a heat-sealed bag of waterproof vinyl resin or polyethylene film not less than 0.004 inch in thickness. The bag shall be marked in a clear and legible manner with the Coast Guard approval number, the name and address of the manufacturer, and in letters not less than ¼ inch in height with the words, "JACKKNIFE (WITH CAN OPENER)". The instructions for use of the can opener as required by paragraph (b) of this section may also be printed on the bag.

Subpart 160.044—Pumps, Bilge, Lifeboat, for Merchant Vessels

SOURCE: CGFR 50-30, 16 FR 1085, Feb. 6, 1951, unless otherwise noted.

§ 160.044-1 Applicable specifications.

(a) There are no other specifications applicable to this subpart.

(b) [Reserved]

§ 160.044-2 Types and sizes.

(a) *Type.* Bilge pumps covered by this subpart shall be manually operated, either oscillating, wing type, or full rotary type, with mountings so arranged as to permit attachment to a thwart or other part of the lifeboat structure without interference with the seating