

fitted with hinged shutters. When the bulwarks are of canvas the edge in way of the ports is to be secured to a rail, to which the shutters are to be hung. The shutters are to be of $\frac{3}{4}$ in. hard-wood, loosely fitted to prevent jamming when wet, and the hinges must be of brass, or of a type that will not become set fast by rust.

Scuppers of sufficient size and number for readily freeing the deck of water may be fitted, if preferred, instead of the freeing ports.

Fender.—Decked lifeboats of section (A), (B), or (C), when not fitted with air-cases, are to be fitted with a suitable fender of wood, cork, or kapok all round the gunwale below the deck. The section of the fender, if of wood, is to be not less than 7 square inches, and if of cork or kapok, 10 square inches.

Slings.—In order that the boat may not be liable to cant when hanging in the davits, a chain sling is to be fitted transversely at each end of the boat, with a hook to engage with the falls. The boat is to be well stiffened in way of the slings by partial bulkheads, strong timbers, and beams, as may be necessary.

General.—All necessary bands, steps, eyeplates, eyebolts, cleats, &c., are to be fitted for the mast, sail, rudder, oars, becketed line, painter, &c.

Equipment.—The full equipment must be supplied for each boat in accordance with the provisions of clauses (5) and (6) of the general rules for life-saving appliances.

(7.) Measurement of Area of Deck.

The area of the deck to be used in determining the number of persons to be allowed in accordance with clause 3 of the statutory rule is to be measured as follows: The length of the boat is to be measured on deck, from the outside of sheerstrake where rabbeted to the stem to the corresponding point at the sternpost. The length is to be divided into four equal parts, and the breadth of the deck is to be measured to the outside of the sheerstrake at the three points of division. From the breadths so measured the area of the deck is to be found by Simpson's rule.

(8.) Freeboard approved by the Board of Trade under Clause 3, Paragraph 2, of the Rule.

The freeboard of a decked lifeboat when loaded in fresh water is not to be less than that given in the following table, which should be applied without correction in the case of boats which have a mean sheer equal to 3 per cent. of their length and have no round of beam. The depth of the boat for use with the table is to be measured vertically from the underside of the garboard strake to the top of the deck at side amidships, and the freeboard is to be measured from the top of the deck at the side amidships when the boat is loaded in fresh water.

Depth of Boat.	Freeboard in Fresh Water.
12 in.	$1\frac{1}{2}$ in.
18 "	$2\frac{1}{4}$ "
24 "	3 "
30 "	4 "

For intermediate depths the freeboard is to be found by interpolation.

Sheer Correction.—The above table of freeboards is framed for a mean standard sheer equal to 3 per cent. of the boat's length. If the sheer of the boat is greater or less than the standard, the difference between the actual mean sheer in inches measured at the stem and the sternpost, and the standard mean sheer in inches, is to be divided by seven, and the result deducted from or added to the freeboard given in the table according as the actual sheer is greater or less than the standard.

Round of Beam Correction.—If the beams have camber or round of beam, one-fourth of the round of beam in inches is to be deducted from the freeboard given in the table.

Whatever the sheer and round of beam may be, no part of the upper surface of the deck is to be below water when the boat is upright and on an even keel in fresh water with its full load on board. The freeboard required is not affected by the length of the boat.

(9.) Number of Persons: How determined.

Under clause 3 of the rule, when a practical test of a decked lifeboat afloat is not considered by the Board of Trade to be necessary for determining the number of persons it is fit to carry, the number shall be deemed to be the whole number obtained by dividing the area of the deck in square feet by 3·8.

A practical test is not considered to be necessary for this purpose unless the proportion of the boat's breadth to its depth is, in the opinion of the surveyor, insufficient to give the necessary stability when the full number of persons is on board, or unless the mean effective depth of the boat, determined in the manner provided by clause (10) of these instructions, is less than 1 ft. 7 in., or unless the surveyor has reason to doubt whether the necessary freeboard will be preserved with the full number of persons on board at 3·8 square feet of deck area for each person.

When a practical test is considered to be necessary it is to be made in the following manner: The boat is to be placed in the water with the statutory equipment on board, and loaded with weights until it is floating at the freeboard required by clause (8) of these instructions. The total weight in pounds avoirdupois required to bring the boat to this freeboard, divided by 140, gives the number of persons to be allowed, provided that the stability of the boat is satisfactory, and that the number allowed is in no case to exceed the whole number obtained by dividing the area of the deck in square feet by 3·8. If the water in which the boat is tried is not fresh, a correction should be made for the density of the water.

(10.) Number of Persons: Approximate Rule.

When it is not practicable to carry out the test afloat before the boat is placed on board a ship the number of persons to be allowed is to be determined by the following approximate rule: Find the effective depth of the boat by adding to the depth in inches, measured as described in