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The timbers may be reduced to l_{16}^{1} in. by l_{16}^{13} in.; the deck may be of two thicknesses of pine having a total thickness of l_{16}^{11} in. with a ply of calico between, and the beams may be reduced to

 1_{16}^{1} in. by 1_{16}^{1} in.

The cork used for filling the boats may be the cuttings from the manufacture of bottle-corks, but granulated cork is not to be accepted. A close-jointed lining of pine $\frac{1}{4}$ in. Thick must be fitted on the inside of the timbers to keep the cork-cuttings from the bottom planking. Kapok is not for the present approved as a substitute for cork-cuttings for this purpose, owing to the difficulty of testing the quality of this material. In the event of a boat filled with kapok being submitted for approval, the surveyor should carefully test samples of the kapok taken from the boat, and submit a full report for the consideration of the Board.

(3.) Scantlings for Boats of Small Dimensions and for Boats over 30 ft. in Length.

Whichever method of construction is used, the scantlings of boats of small dimensions may be reduced as follows: In boats which are 24 ft. to 27 ft. long the total thickness of the skin planking and of the deck may be $\frac{1}{16}$ in. less than specified above, and the siding and moulding of the timbers and beams may also be reduced $\frac{1}{16}$ in. The moulding and siding of the keel and shelf may also be reduced 1 in.

In the case of decked boats less than 24 ft. long, the total thickness of the skin planking and of the deck and the siding and moulding of the timbers and beams may each be in less than

specified. The moulding and siding of the keel and shelf may also be reduced ½ in.

For boats exceeding 30 ft. in length the scantlings should be submitted to the Board of Trade for approval.

(4.) Alternative Method of Construction when the Boat is fitted with Air-cases.

Boats having a single skin of pine, clencher worked, and which are fitted with a strong watertight deck, may also be accepted as decked boats of section (A) or (B) if fitted with efficient air-cases having a capacity of 1 cubic foot for each person allowed, provided the boat is efficiently constructed and the deck has at least two watertight hatches so arranged that the air-cases can be withdrawn for inspection and the interior of the boat examined.

(5.) Construction of Section (C), (D), and (E) Boats.

Decked boats not fitted with air-cases and complying generally with the standard of construction detailed in clause I or clause 2, but differing from it in having slightly lighter scantlings, or a slightly wider spacing of fastenings, or smaller openings in the deck, are to be regarded as section (C) boats. Boats of this type, however, which are constructed with a single thickness of pine planking, or are in other respects materially below the above standard and are not fitted with air-cases, having a capacity of 1 cubic foot for each person, are to be regarded as boats of section (D) or (E), according as they have fixed or collapsible bulwarks.

(6.) Fittings of Decked Boats.

Bulwarks.—Section (A), (B), (C), and (E) boats of this type are to be fitted with bulwarks which may be either fixed or collapsible, and, if collapsible, may be of waterproof canvas not less than No. 4. The bulwarks of section (D) boats must be fixed. The height of the bulwarks should be not less than 18 in. for a 20 ft. boat, and 24 in. for a boat 30 ft. long or over, and for intermediate lengths in proportion.

The bulwarks must be supported by stanchions, which may be of wood or of metal; if metal castings are used for this purpose the surveyor is to satisfy himself that they are of sufficient strength and ductility by testing one of the stanchions when the boat first comes under survey.

(See also the paragraph below regarding freeing-ports.)

*Upper Gunwale**—To be of oak or elm, fitted at the upper edge of the bulwarks, and well

*Indiana description of the bulwarks of the fastened to the bulwark stanchions or stays. It must be of sufficient size to form a rigid connection at the topsides, and provide efficient support for the rowlocks or crutches fitted for the oars.

If the bulwarks are of canvas, the gunwale is to be strongly stayed and well supported by cross-beams, stanchions, and chains, or by other means, so as to support the bulwarks efficiently, and take the strain of the oars and of the mast.

The outer edge of the upper gunwale amidships should not project beyond the fender fitted at the deck.

Thwarts and Side-benches.-The thwarts are to be of pine, supported by stanchions from the deck planking, and their ends must be secured to pine side benches or seats, worked all round the

boat, and supported by the bulwark stanchions or stays.

The thwarts and side seats are to be 8 in. by $1\frac{1}{2}$ in. and 9 in. by 1 in. respectively for boats over 27 ft. long, and 8 in. by $1\frac{1}{4}$ in. and 9 in. by $\frac{7}{8}$ in. respectively for smaller boats.

Bilge-pump.—Decked boats of section (A), (B), (C), (D), or (E) are to be fitted with an efficient bilge-pump to clear the bilges of water. The pump must be not less than 2 in. in diameter, and must be provided with a suitable rose-box.

Draining the Inside of the Boat .- A brass tube of sufficient thickness is to be fitted and connected to metal castings, efficiently secured to the bottom and deck planking, and a metal plug

1 in. in diameter is to be fitted in the tube and worked by a rod from the deck.

The plug is to have an efficient seating, metal to metal, in the lower casting below drain-holes cut in the casting for draining the water to the orifice. The casting at the deck is to be formed so as to house the handle of the rod, and is to be

fitted with a locking arrangement to hold the plug firmly on its seating, and also to prevent the plug from being forced from its seating by the pressure of water.

Plugs of other forms may be used provided they can be shipped in place from the deck, and

are approved by the Board of Trade.

Freeing Ports or Scuppers.—Freeing ports are to be formed in the lower edge of the bulwarks for at least one-third of the length amidships and $2\frac{1}{2}$ in. to $3\frac{1}{2}$ in. deep. They must be