COMPOSITE YACHTS.

TABLE OF MINIMUM DIMENSIONS OF KEEL, STEM, STERNPOST, RUDDER, FRAMES, REVERSED FRAMES, FLOORS, AND WEB FRAMES.

TABLE 9

INTERNATIONAL RATING CLASSES.	WOOD KEEL, STEM, STERNPOST, AND RUDDER.							STEEL FRAMING.							INTERNATIONAL RATING CLASSES.
	WOOD KEEL.			Siding and Moulding of Stem at Head and Sternpost, Siding of After Deadwood, and Diameter of Rudder Head. *	Siding and Moulding of Stem at Heel. * *	Diameter of Rudder Head when of Iron or Steel. *	Diameter of Rudder Pintles.	Frames.	Reversed Frames.	Maximum Spacing of Frames. — Heel to Heel.	FLOOR PLATES.		WEB FRAMES.		
	Moulding.	Minimum Siding Amidships.	Length of Scarph.								Depth at Centre.	Thickness.	Number on each Side.	Breadth and Thickness of Web Plate.	
	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.		inches.	
10 Metres or 32·8 Feet.	$5\frac{1}{2}$	11	—	$4\frac{1}{4}$	$5\frac{1}{2}$	$1\frac{1}{2}$	—	$1\frac{3}{4}\times1\frac{3}{4}\times\cdot16$ 1·82 lbs.	$1\frac{1}{2}\times1\frac{1}{2}\times\cdot14$ 1·36 lbs.	14	11	·14	—	—	10 Metres or 32·8 Feet.
12 Metres or 39·4 Feet.	$6\frac{1}{4}$	$12\frac{1}{4}$	41	5	$6\frac{1}{4}$	$1\frac{3}{4}$	$1\frac{1}{4}$	2 $\times1\frac{3}{4}\times\cdot18$ 2·18 lbs.	$1\frac{3}{4}\times1\frac{3}{4}\times\cdot14$ 1·60 lbs.	15	12	·16to·14	3	$6\times\cdot16$	12 Metres or 39·4 Feet.
14 Metres or 45·9 Feet.	7	$13\frac{1}{2}$	44	$5\frac{3}{4}$	7	2	$1\frac{3}{8}$	2 $\times2\times\cdot20$ 2·58 lbs.	$1\frac{3}{4}\times1\frac{3}{4}\times\cdot16$ 1·82 lbs.	$15\frac{3}{4}$	13	·18to·16	3	$8\times\cdot18$	14 Metres or 45·9 Feet.

The Table scantlings for wood are to be based on the standard weights given on page 25, Section 22, Clause 4.

Where a smaller frame spacing than that given in the Table is approved, the sectional area of the frames, reversed frames, and floors may be correspondingly reduced.

The weight of each angle section is given in the Tables in pounds per linear foot. Where it is proposed to make deviations from the sizes of the angles on account of the difference in the sections in the various countries, the weight per linear foot must remain the same.

Where it may be desired to make slight deviations from the requirements of the Tables, sketches showing details of the proposed equivalent arrangements are to be submitted for approval.

* Where it is proposed to fit the rudder head of yellow metal, either of solid or tubular section, the scantlings of the same are to be submitted for approval, and where a yacht is not sheathed with copper or yellow metal an iron or steel rudder may be fitted. In such cases the siding of the sternpost may be tapered to suit the diameter of the rudder stock, provided the siding at after edge of rabbet be not less than required by the Table.

* * The stem is to have a uniform taper from head to heel, and the mast step should be extended to strengthen the fore part of the yacht.

WHERE THE OUTSIDE PLANKING IS FITTED OF THE FOLLOWING INCREASED THICKNESS, THE SPACING OF THE FRAMES MAY BE INCREASED AS FOLLOWS:—

INTERNATIONAL RATING CLASSES.	Thickness of Outside Planking.	Spacing of Frames.
	inches.	inches.
10 Metres	1·14	15
12 Metres	1·38	$15\frac{3}{4}$
14 Metres	1·56	$16\frac{1}{2}$

COMPOSITE YACHTS.

TABLE 10

TABLE OF MINIMUM DIMENSIONS OF STEEL PLATING AND ANGLES, AND OF OUTSIDE PLANKING.

INTERNATIONAL RATING CLASSES.	STEEL PLATING							AND ANGLES.					INTERNATIONAL RATING CLASSES.
	THICKNESS OF FLAT KEEL PLATE.		UPPER DECK SHEERSTRAKE AND STRINGER PLATE.			VERTICAL SIDE KEEL PLATES AND BILGE PLATES.		Diagonal Tie Plates on Outside of Frames between Sheerstrake and Bilge Plate, and on Upper Deck Beams from Stringer to Stringer. Also Dimensions of Longitudinal Tie Plates on Upper Deck.			Keel Angles; also Upper Deck, and Bilge Stringer, Angles.	Thickness of Outside Planking.	
				At Ends.				Number of Pairs of Diagonal Tie Plates.		Breadth and Thickness. Also thickness of Butt Plates to Outside Planking.			
	In way of Ballast Keel.	Before and Abaft Ballast Keel.	For three-quarters length (water line) amidships.	Forward End.	After End.	For three-quarters length (water line) amidships.	At Ends.	On Frames.	* On Upper Deck Beams.				
	inches.	inches.	inches.	inches.	inches.	inches.	inches.			inches.	inches.	inches.	
10 Metres or 32·8 Feet.	—	—	10 × ·12	5½ × ·12	4 × ·12	7 × ·12	5 × ·12	—	2	3¼ × ·14 to ·12	2 × 2 × ·16 to ·14 2·08 lbs. to 1·83 lbs.	1·04	10 Metres or 32·8 Feet.
12 Metres or 39·4 Feet.	·25	·15	12 × ·14	7½ × ·12	6 × ·12	7½ × ·14	6 × ·12	2	2	3½ × ·16 to ·14	2¼ × 2¼ × ·18 to ·16 2·64 lbs. to 2·36 lbs.	1·28	12 Metres or 39·4 Feet.
14 Metres or 45·9 Feet.	·28	·18	14 × ·16	8½ × ·14	7 × ·14	8 × ·16	6 × ·14	3	2	4 × ·18 to ·14	2¼ × 2¼ × ·20 to ·18 2·92 lbs. to 2·64 lbs.	1·48	14 Metres or 45·9 Feet.

The Table scantlings for wood are to be based on the standard weights given on page 25, Section 22, Clause 4.

The weight of each angle section is given in the Tables in pounds per linear foot. Where it is proposed to make deviations from the sizes of the angles on account of the difference in the section in the various countries, the weight per linear foot must remain the same.

Where it may be desired to make slight deviations from the requirements of the Tables, sketches showing details of the proposed equivalent arrangements are to be submitted for approval.

* In yawl rigged yachts an additional pair of diagonal tie plates is to be fitted in way of jigger mast.

COMPOSITE YACHTS.

TABLE 11

TABLE OF MINIMUM DIMENSIONS OF BEAMS, PILLARS, DECK PLANKING, FASTENINGS, AND BEAM KNEES.

INTERNATIONAL RATING CLASSES.	STEEL BEAMS AND STEEL OR IRON PILLARS.						DIAMETER OF FASTENINGS.			INTERNATIONAL RATING CLASSES.
	BEAMS FITTED AT ALTERNATE FRAMES.		BEAMS FITTED AT EVERY FRAME.	BEAMS FITTED AT EVERY FRAME.	HOLLOW PILLARS.	Thickness of Upper Deck Planking.				
	Through Beams for three-quarters length (water line) amidships.	Through Beams beyond the three-quarters length (water line) amidships. Half Beams throughout.	Through Beams for three-quarters length (water line) amidships.	Through Beams beyond the three-quarters length (water line) amidships. Half Beams throughout.	Outside Diameter and Thickness.	With Beam at every Frame.	With Beams at alternate Frames.	Bolts in Keel, Deadwood, Stem, and Sternpost.	Bolts in Frames and Outside Planking.	Screws in Beams and Deck Planking.	
	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	
10 Metres or 32·8 Feet.	$2\frac{1}{4} \times 1\frac{1}{2} \times \cdot18$ 2·18 lbs.	$2 \times 1\frac{1}{2} \times \cdot16$ 1·82 lbs.	$2 \times 1\frac{1}{4} \times \cdot16$ 1·68 lbs.	$2 \times 1\frac{1}{4} \times \cdot14$ 1·48 lbs.	—	1·22	1·38	$\frac{9}{16}$	$\frac{6}{16}$	·30 (No. 18)	10 Metres or 32·8 Feet.
12 Metres or 39·4 Feet.	$2\frac{3}{4} \times 2 \times \cdot20$ 3·09 lbs.	$2\frac{1}{4} \times 1\frac{3}{4} \times \cdot18$ 2·33 lbs.	$2\frac{1}{4} \times 1\frac{1}{4} \times \cdot18$ 2·03 lbs.	$2\frac{1}{4} \times 1\frac{1}{4} \times \cdot16$ 1·82 lbs.	—	1·38	1·54	$\frac{10}{16}$	$\frac{6}{16}$	·33 (No. 20)	12 Metres or 39·4 Feet.
14 Metres or 45·9 Feet.	$3\frac{1}{4} \times 2\frac{1}{4} \times \cdot20$ 3·60 lbs.	$2\frac{1}{2} \times 2 \times \cdot18$ 2·64 lbs.	$2\frac{1}{2} \times 1\frac{1}{2} \times \cdot18$ 2·33 lbs.	$2\frac{1}{4} \times 1\frac{1}{4} \times \cdot18$ 2·03 lbs.	$1\frac{5}{8} \times \cdot18$	1·52	1·68	$\frac{11}{16}$	† $\frac{7}{16}$	·33 (No. 20)	14 Metres or 45·9 Feet.

The weight of each angle section is given in the Tables in pounds per linear foot. Where it is proposed to make deviations from the sizes of the angles on account of the difference in the sections in the various countries, the weight per linear foot must remain the same.

Where it may be desired to make slight deviations from the requirements of the Tables, sketches showing details of the proposed equivalent arrangements are to be submitted for approval.

† The bolts in frames and outside planking of yachts of 14 and $14\frac{1}{2}$ metres rating are to be increased $\frac{1}{16}$ of an inch in diameter beyond the size given in the Table where the planks are 8 inches or more in width.

BEAM KNEES.

Depth of Beam	inches. $1\frac{1}{4}$	inches. $1\frac{1}{2}$	inches. $1\frac{3}{4}$	inches. 2	inches. $2\frac{1}{4}$	inches. $2\frac{1}{2}$
Depth of Knee	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	7	$7\frac{1}{2}$

BEAM KNEES.

inches. $2\frac{3}{4}$	inches. 3	inches. $3\frac{1}{4}$			
8	$8\frac{1}{2}$	9			

The beam knees are to be connected to the frames by not less than four rivets, and are to measure across the throat not less than 60 per cent. of the depth required for the knees.

COMPOSITE YACHTS.

TABLE 12

TABLE OF MAXIMUM NUMBER OF YEARS ASSIGNED TO THE DIFFERENT DESCRIPTIONS OF TIMBER.*

TIMBER.	Keel.	Stem, Sternpost, and Deadwood.	OUTSIDE PLANKING.		Main Piece of Rudder.
			From Top of Keel to Two Feet below Water-line. ††	From Two Feet below Water-line up to and including Plankshеer. ††	
East India Teak	16	16	16	16	16
English, African, French, Adriatic, Italian, Spanish, Portuguese, and Northern Continental Oaks and Acacia	12	12	12	12	12
Mahogany of hard texture † and of not less than 35lbs. weight per cubic foot when well seasoned, and American White Oak	10	9	12	10	10
Pitch Pine, Yellow Pine, Oregon Pine, Cowdie or Kaurie Pine, Mahogany of 30 and under 35 lbs. weight per cubic foot, and Pencil Cedar ...	—	—	12	10	—
Larch	—	—	12	9	—
Dantzic, Memel, Riga, and American Red Pine	—	—	9	9	—
Spruce Fir, Swedish and Norway Red Pine	—	—	8	8	—
White Pine, Red Cedar, and Philippine Island Cedar	—	—	6	6	—
American Rock Elm	14	—	12	—	—
English Elm	12	—	—	—	—

* Other materials than those provided for in the above Table will be admitted subject to the approval of the Committee.
† Mahogany of hard texture, if metal fastened, will be assigned a term of 12 years for topside planking.
†† In the 10 metres rating class the boundary may be 1·5 foot below waterline.

TABLE 13

TABLE OF MINIMUM NUMBER OF BOLTS ATTACHING OUTSIDE PLANKING TO FRAMES.

WIDTH OF PLANKS	ACTUAL THICKNESS OF PLANKS IN INCHES.		
	·5 and under 1·0	1·0 and under 1·5	1·5 and under 2·0
inches. 3 and under 4	Double	Double and Single	Double and Single
4 and under 5	Double	Double and Single	Double and Single
5 and under 6	Double	Double	Double and Single
6 and under 7	Treble	Double	Double
7 and under 8	Treble	Treble	Double
8 and under 9	—	Treble	Treble
9 and under 10	—	Treble	Treble

The number of bolts at the butts of outside planks is to be at least as required at the frames for the same width of plank, but there is not to be less than two bolts in each plank at the butts.

COMPOSITE YACHTS.

TABLE 14

TABLE OF MINIMUM DIAMETERS OF COPPER OR YELLOW METAL BOLTS ATTACHING LEAD BALLAST KEELS.*

Product of the sectional area of lead keel in square feet, and the fore and aft spacing of bolts in feet.	DIAMETER OF BOLTS WHERE NO WING OR SIDE BOLTS ARE FITTED.†						
	PROPORTION OF DEPTH OF LEAD KEEL TO BREADTH AT THE UPPER EDGE.						
	Under 1·0	1·0 and under 1·5	1·5 and under 2·0	2·0 and under 2·5	2·5 and under 3·0	3·0 and under 3·5	3·5 and under 4·0
	inches.	inches.	inches.	inches.	inches.	inches.	inches.
Under ·5	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
·5 and under ·8	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$
·8 and under 1·2	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
1·2 and under 1·7	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$
1·7 and under 2·3	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
2·3 and under 3·0	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$
3·0 and under 3·8	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$
3·8 and under 4·7	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$
4·7 and under 5·7	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2
5·7 and under 6·8	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{8}$
6·8 and under 8·0	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$

* The diameters of the bolts attaching lead keels are to be at least three sixteenths of an inch larger than required by the Table for stem and sternpost bolts. Bolts fitted at a larger angle than 30° to the vertical are to be excluded in measuring the fore and aft spacing and may be of a smaller diameter than the ordinary bolts.

† Where wing or side bolts are fitted the keel bolts may be of reduced size but are in no case to be less in diameter than required by column one.

TABLE 15

TABLE OF DIMENSIONS OF BUTT STRAPS, WIDTH OF LAPS AND SPACING OF RIVETS.

		Inches.	Inches.	Inches.	Inches.
Thickness of Plating or Angles ...		·10 and under ·15	·15 and under ·20	·20 and under ·25	·25 and under ·30
Diameter of Rivets		$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Breadth of Double riveted butt straps *		$4\frac{1}{4}$	5	$5\frac{3}{4}$	$6\frac{1}{2}$
,, ,, Single riveted butt straps ...		$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
,, ,, Double riveted butt laps ...		$2\frac{1}{8}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$
,, ,, Single riveted butt laps ...		$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$
Maximum spacing of rivets from centre to centre.	In butts of sheerstrake, keel plate, stringers, tie plates, bilge plates, and vertical side keel plates ...	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
	In upper deck stringer angles, and keel angles	$1\frac{3}{8}$	$1\frac{5}{8}$	2	$2\frac{1}{4}$
	In frames, reversed frames, floors, and beams	$2\frac{1}{4}$	$2\frac{5}{8}$	3	$3\frac{1}{2}$

* Double riveted butt straps are to be ·05 of an inch thicker than the plates they connect.

International Rating Classes.	Riveting of Butt Attachments.		
	Butts of Keel Plate, Tie Plates, and Vertical Side Keel Plates.	Butts of Sheerstrake, and Upper Deck Stringer Plate.	
		For three-quarters length (water line) amidships.	At Ends.
10, 12 and 14 Metres	Double riveted throughout	Double	Single

TABLE OF MINIMUM WEIGHTS OF ANCHORS, AND SIZES OF CHAINS AND HAWSERS FOR YACHTS INTENDED FOR RACING IN THE INTERNATIONAL RATING CLASSES.

INTERNATIONAL RATING CLASSES.	ANCHORS.				CHAIN CABLES.			HEMP OR MANILA HAWSERS.			INTERNATIONAL RATING CLASSES.
	Number.	WEIGHT, INCLUDING STOCK.			Length.	Diameter.	MINIMUM WEIGHT.		Length.	Circumference.		
		1st Anchor.	2nd Anchor.	3rd Anchor.			Stud Link.	Short Link.				
		Cwts. qrs. lbs.	Cwts. qrs. lbs.	Cwts. qrs. lbs.	Fathoms.	inches.	Cwts. qrs. lbs.	Cwts. qrs. lbs.	Fathoms.	inches.	inches.	
6 Metres or 19·7 Feet.	1	0–1– 2 30 lbs.	—	—	—	—	—	—	15	2	—	6 Metres or 19·7 Feet.
8 Metres or 26·2 Feet.	2	0–1–15 43 lbs.	0–1– 4 32 lbs.	—	25	$\frac{5}{16}$	1–2– 3 171 lbs.	1–2–19 187 lbs.	25	$2\frac{1}{4}$	—	8 Metres or 26·2 Feet.
10 Metres or 32·8 Feet.	2	0–2–12 68 lbs.	0–1–23 51 lbs.	—	40	$\frac{6}{16}$	3–1– 9 373 lbs.	3–2– 6 398 lbs.	35	$2\frac{3}{4}$	2	10 Metres or 32·8 Feet.
12 Metres or 39·4 Feet.	2	0–3–16 100 lbs.	0–2–19 75 lbs.	—	45	$\frac{7}{16}$	5–1– 0 588 lbs.	5–2–27 643 lbs.	40	3	2	12 Metres or 39·4 Feet.
14 Metres or 45·9 Feet.	2	1–0–22 134 lbs.	0–3–16 100 lbs.	—	55	$\frac{8}{16}$	7–3–21 889 lbs.	8–3–13 993 lbs.	45	$3\frac{1}{4}$	$2\frac{1}{4}$	14 Metres or 45·9 Feet.

All Anchor Stocks must be of acknowledged and approved description, and be one-fourth the weight of the Anchor.

There should be included in the weights of Chain Cables two end Shackles to each Cable ; that is four for each outfit which contains two Cables.

All Anchors exceeding 168 lbs. in weight, including Stock, and all Chain Cables for yachts of 12 metres rating and above, are to be tested at a recognised Proving House, according to the requirements of the Act of Parliament and of the Society's Rules. Certificates of Test are to be produced before the yacht is classed.

For Anchor and Chain Cable Proving Establishments, see pages following Table 32.