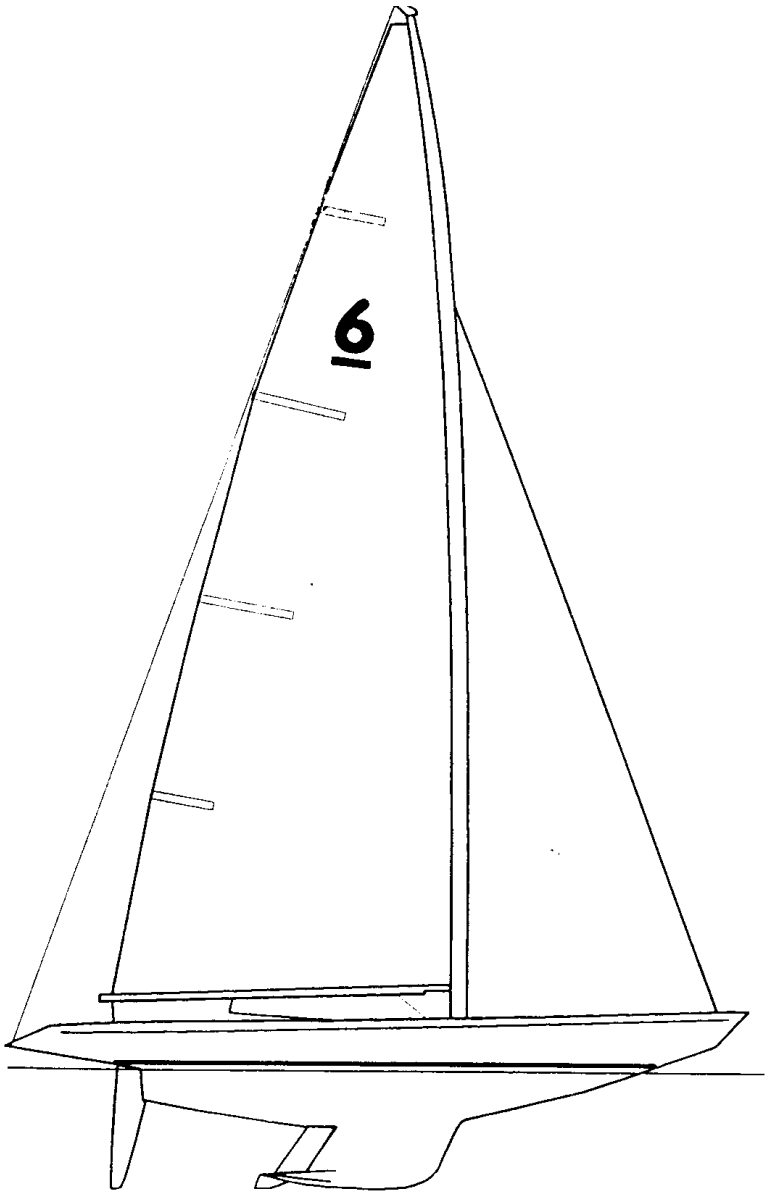
2024
INTERNATIONAL SIX METRE CLASS RATING RULE AND MEASUREMENT INSTRUCTIONS

Authority*: World Sailing



* World Sailing is not a National Authority (NA)

CONTENTS

Rating Rule

* World Sailing is not a National Authority (NA)

CONTENTS (cont.)

Measurement Instructions

* World Sailing is not a National Authority (NA)

PREAMBLE

This Rule was approved by the World Sailing effective from 1th January 2024. It replaces all previous editions.

This Preamble is not part of the Class Rules

INTERPRETATION

The official language of the International Six Metre Class Rule is English. In questions of translation, the English text shall prevail.

Unless otherwise prescribed, the word or words:

(i) "class rule" means the International Six Metre Class Rule.
(ii) "GRP" means glass reinforced plastic.
(iii) "ISMA" means the International Six Metre Association.
(iv) “World Sailing” was formerly ISAF / International Sailing Federation.
(vi) "keel" means the external ballast package below and attached to the keel plate.
(v) "lead" means lead or lead alloys of specific gravity not greater than pure lead (11.30).
(vii) "owner" means the owner, the owner's representative and, while racing, the skipper.
(viii) "racing rules" means The Racing Rules of Sailing.
(ix) "shall" is mandatory; "may" is permissive.
(x) “National Authority” is the World Sailing Member National Authority (MNA). In countries where there is no MNA, or the MNA does not wish to administer the class, its administrative functions as stated in these class rules shall be carried out by the International Six Metre Association.

All measurements are expressed in metric units unless stated otherwise.

AMENDMENTS

Proposed amendments should first be submitted to ISMA. Amendments approved by ISMA will be submitted to World Sailing for ratification and inclusion in the class rule.

* World Sailing is not a National Authority (NA)

RATING RULE

1. RULE AND DURATION

At least one year's notice of any proposed change to these rules shall be given and favourably seconded by a majority of the nations.

Yachts shall be surveyed, measured and rated in accordance with, and otherwise comply with, the class rule and scantlings current when the yacht was first certificated, except that:

(a) replacement spars and equipment shall comply with the class rule current at the time of replacement;

(b) sails shall comply with the current class rule; and

(c) a yacht which has had the shape of the underwater part of her hull excluding the keel altered, or the position of a rudder post altered, or freeboard altered, shall be measured for waterline length and freeboard under the class rule current at the time of alteration.

(d) yachts initially certificated or constructed prior to 31st December 1965 have the option of measurement under the limitations and with the permitted variations set out in Appendix A.

(e) yachts built to previous versions of the International Rule and originally certificated or constructed prior to 1st October 1933 (the date when this Third Rule came into force) are to be re-rated to this version of the Rule.

Classic is defined as a boat first constructed and/or certificated before December 31, 1965 and built according to Class rules and guidelines. Replicas of such yachts whose construction has been endorsed by the International Six Metre Association are also eligible to compete.

For the purpose of qualifying as a 'replica' the class requires:

ISMA shall allow construction of a new Six Metre yacht to an old design which is permitted to race as a Classic Six Metre provided the following requirements are met:

1. The construction drawings shall have been completed on or before 31 December 1965
2. There shall be no duplication of existing hulls. Prior to commencement of construction, it shall be documented that the original hull has been demolished or is a constructive or absolute total loss.
3. The construction shall be strictly in accordance with the International Six Metre Class scantling rules and regulations of the time of original build. The International Six Metre Association (ISMA) shall be kept informed of the progress during the building stages, and specify what reports shall be submitted to satisfy Class rule 26.9. On completion an approved Measurer shall inspect the boat and calculate the rating, and submit the results to the National Authority to issue a Certificate of Rating.

2. INTERNATIONAL FORMULA

$$\text{Rating in metres} = \frac{L + 2d - F + \sqrt{S}}{2.37}$$

Where

L = Length in metres
d = Girth difference in metres
F = Freeboard in metres
S = Sail area in square metres

3. LENGTH (see also the illustrations in measurement instruction M13)

* World Sailing is not a National Authority (NA)

The length "L" for the formula shall be the length measured at a height of 90mm above the L.W.L. plus one and one-half times the difference between the chain girth at the bow section measured to points 300mm above "L" and twice the vertical height from "L" to those points plus one-third of the difference between the chain girth, from sheerline to sheerline, at the stern ending of this length, and twice the vertical height at the side of the yacht at this station. For the purpose of calculating the rating the minimum difference of girth at the bow station, as defined above shall be 180mm, and minimum difference of girth at the stern station as defined above, shall be 600mm. The requirement for a minimum value for the difference of girth at the stern station shall not apply to yachts laid down before 31 December 1961.

The afterbody of the yacht shall be so shaped that an after chain girth measurement can be taken in a vertical transverse plane intersecting the after overhang at a height of 180mm above the L.W.L (L_2).

If one third of the girth difference (i.e. the chain girth from sheerline to sheerline less twice the vertical height) at this station, (L_2), is less than 65 per cent of one third of the stern girth difference at L_1, the deficiency shall be added to the stern girth difference in calculating the yacht's rating. The horizontal distance from L_1 to L_2 shall be not less than 190mm. The requirement to measure an additional girth measurement at L_2 and any associated penalties shall not apply to yachts laid down before 1 November 1970.

4. GIRTH DIFFERENCE (see also the illustrations in measurement instruction M13)

The girth difference, d in the formula, shall be measured in the transverse plane, vertically, at 0.55 L.W.L. from the fore end of the L.W.L., and shall be the sum of the differences between the skin girth and chain girth, measured on the two sides of the yacht, from the mark on the sheerline d to corresponding points in the hull surface at a level 750mm below the waterline.

5. HOLLOWS IN THE SURFACE OF THE HULL (see Measurement Instruction 18)

No hollows shall be permitted in the surface of the hull between the L.W.L. and the sheerline, excepting in the profile of the stern forward of the point of the measurement L_1.

Hollows in the surface of the hull at the stern immediately resulting from the hollow permitted in the stern profile shall not be prohibited by this clause, provided any hollows so formed fall within the buttock line 230mm from the fore and aft centreline and below measurement point L_1.

6. DRAUGHT

The maximum draught permitted shall be 16 per cent of the L.W.L. plus 500mm. If the draught exceeds that permitted, three times the excess will be added to the rating.

Underwater Appendages

(a) No more than two movable appendages are permitted. No movable appendage, or part thereof, shall be affixed forward of little 'd' (the 55% girth station).
(b) Centreboards and similar contrivances are banned.
(c) The beam of the yacht measured at any point more than 750mm below the L.W.L. shall not exceed 1,830mm.
(d) Winglets on the keel, if fitted, shall be fixed and incapable of being adjusted in trim or being retracted while sailing.

* World Sailing is not a National Authority (NA)

7. FREEBOARD (see Measurement Instructions 23 and 29)

The freeboard, F in the formula, shall be the freeboard at the 0.55 girth station plus the freeboard at bow L_1 ending plus the freeboard at stern L_1 ending, the sum shall be divided by three. The maximum freeboard used as a minus quantity in the formula when calculating the rating shall be 730mm (0.08 multiplied by the rating plus 250mm).

For yachts first laid down after 1 November 1970, freeboard aft shall not be taken as more than 95 per cent of the freeboard forward and the freeboard forward shall not be taken as more than 20 per cent greater than the freeboard amidships.

8. SHEER

The sheer of the yacht shall be a fair continuous concave curve.

9. TUMBLE HOME (see Measurement Instruction 15)

The tumble home on each side may not exceed two per cent of the extreme beam without penalty. When the tumble home of the side of the yacht exceeds the amount permitted three times the excess shall be added to the rating.

10. DISPLACEMENT

Displacement in cubic metres shall be not less than $(0.2 \text{ L.W.L. (in metres)} + 0.15)^3$.

If a yacht is less than the displacement required by the rule for her length on L.W.L. then the difference between the length on the L.W.L. to which her actual displacement corresponds by the rule and the actual length on L.W.L. shall be doubled and added to the length measurement.

To enable the displacement to be determined by weighing, yachts laid down after 31st December 1978 shall be provided with lifting eyes, the construction, size and attachment to the hull of which shall be approved by the appropriate classification society. For boats first certified after 1st June 2007 the classification society is replaced by the structural consultant as defined in 26.1.

11. LIMITATION UPON MINIMUM BEAM

The minimum beam, measured at one-third of the Rule 'mid-ship freeboard above L.W.L. at the point of greatest beam on that line, shall be 1830mm.

Any deficiency shall be multiplied by 4 and added to "L" in the formula.

The above rule shall only apply to yachts laid down after September 1937.

12. SAIL AREA (see Measurement Instruction 27)

The sail area, S in the formula, shall be measured as laid down in Measurement Instruction 27.

Every sail first measured after 1st May 2010 shall have permanently fixed near its tack, or near the

* World Sailing is not a National Authority (NA)

head on spinnakers, an ISMA sail royalty label. No sail shall be accepted for its first measurement without a sail label. Labels shall not be transferred from one sail to another. Sail labels shall be obtained from the International Six Metre Association by the sailmaker or the owner.

13. MAXIMUM HEIGHT OF SAIL PLAN

The maximum height permitted, measured from a point 90mm above the sheerline abreast of the mast and along the mast shall be 13.000m (class rating multiplied by 2 plus 1000mm).

14. MAINSAIL CROSSWIDTHS AND BATTENS

The length of the battens in the mainsail shall not exceed the following:

	Max
Upper batten:	Not restricted in length
Other battens:	1500mm

The battens in a sail shall divide the after leech into approximately equal parts.
The total width of the mainsail, including the luff rope, at half and three quarter heights shall not exceed 67% and 39% respectively of the maximum permitted foot length B.

Maximum number of battens in sail: four

Battens in other sails are prohibited except as defined in Rule 15.

15. LIMITATIONS ON HEADSAILS

(See Measurement Instruction 27)

The maximum height of the foretriangle measured from a point 90 mm above the sheerline shall be 9.750 m. The biggest **headsail** shall, when first measured, not be capable of extending more than 3.000 m abaft the fore side of the mast.

No **headsail** shall have a club or foot yard, more than one sheet or have other device for extending the sail to other than a triangular shape.

Battens are prohibited with exception that a **headsail** with a **luff perpendicular** not greater than 110% J, a **half width** not greater than 50% of **luff perpendicular** and a **top width** not greater than 100 mm may have up to three **batten pockets** which may have battens placed inside. The maximum **inside batten pocket length** is 800 mm and the maximum **inside batten pocket width** is 50 mm. The intersection of the centreline of a **batten pocket** with the **leech** shall be fall between **quarter leech point** and **three quarter leech point**.

16. LIMIT OF SIZE OF SPINNAKERS

Two types of spinnakers, symmetrical and asymmetrical are permitted. The difference between them and the maximum sizes are defined below.

The luffs and leeches of spinnakers shall be taped with stretch resistant tape.

These spinnakers shall not have more than one sheet or any other contrivance for extending the sail to other than a triangular shape.

Intentional openings in the sail, in addition to the normal cringles and reefing eyelets, shall be

* World Sailing is not a National Authority (NA)

permitted provided that the sail shall be substantially flat in the vicinity of the openings.

(a) Symmetrical Spinnaker

(i) These sails shall be symmetrical about a line joining the head to the centre of the foot. The mid-girth shall not be less than 75% of the length of the foot. The mid-girth shall be taken as the distance between mid-points of the luff and the leech measured in the shortest path on the surface of the sail. The length of the foot shall be measured around the foot of the sail.

(ii) The maximum dimensions of a symmetrical spinnaker shall not exceed the following:

Maximum length of luff and leech of spinnaker: 80% of the square root of "I" squared plus "J" squared, plus 2500mm.

"I" is the height of the fore-triangle
"J" is the base of the fore-triangle

Expressed otherwise (0.8 $\sqrt{}$ (I ² + J ²) + 2500mm) = maximum length of luff and leech.

Maximum breadth of foot of spinnaker shall be 250 per cent of "J".

(b) Asymmetrical Spinnaker

The maximum dimensions of an asymmetrical spinnaker shall not exceed the following:

(i) Luff length shall not exceed $\sqrt{I^2 + J^2}$

(ii) Leech length shall not exceed luff length

(iii) Foot length shall not exceed J + 3.0m

(iv) Mid-girth shall not exceed 110% of the Foot length.

17. HEADBOARDS

The extension of the mainsail headboard measured perpendicular to the aft side of the mast shall not exceed 160mm. (Note in the case of an exterior mainsail luff track, measurement is to the foreside of the groove.) Headboards are prohibited in all other sails.

18. MEASUREMENTS

All measurements shall be taken without crew on board.

19. MARKS

Visible marks on the hull shall be in accordance with Measurement Instructions 10, 11, 12 and 13.

20. IMMERSION (See Measurement Instruction 26)

* World Sailing is not a National Authority (NA)

The certified rating shall be for the immersion of the yacht in water of specific gravity 1.025 (sea water). Allowance shall be made in the case of vessels measured in fresh water, as prescribed in the measurement instructions.

The top of the triangular side marks shall not be immersed when the yacht is on a level keel in racing trim with all persons and additional equipment not specified for purposes of measurement on board. Re-checking of this requirement may be requested at any time.

21. DECK REQUIREMENTS

Decks shall not have "negative camber". That is at any transverse section through the yacht the top of the deck shall not lie below a straight line drawn from the top of the deck at one side of the yacht to the top of the deck at the other side.

This requirement shall not be applied to prohibit "deck recesses" which comply with the following provisions:
Small recesses used to accommodate particular and individual items of gear or equipment, such as spinnaker booms, shall be permitted provided that the method of construction is approved by Lloyd's Register as retaining not less than the weight of the deck structure replaced by the recess.

Deck Openings

The total area of deck openings shall be not more than 2.70m^2.

No opening shall be closer to the deck edge than 200mm.

A hatch between the mast and forestay shall not be included in the total area of the deck openings, provided that:

(a) The method of construction is approved by Lloyd's Register.
(b) The area does not exceed 0.4m^2
(c) It is not closer than 300mm to the deck edge.
(d) The hatch shall have a cover, the weight of which shall be not less than the weight of the deck it replaces. It shall be securely attached to the deck and shall be in place while racing except when the spinnaker is being set or retrieved.

22. SCHEDULE OF EQUIPMENT

The following portable or semi-portable items shall be on board and in normal position of use when the yacht is measured afloat:

(a) Mainsail, genoa jib and spinnaker.
(b) Spars and standing rigging, including one spinnaker boom.
(c) One anchor not lighter than 10kg and one warp not shorter than 30 metres with a minimum diameter of 10mm.
(d) All winches normally used, including complete drive units, pedestals and cranks, together with no fewer than two handles for deck capstans or geared winches.
(e) Hatch covers.
(f) Sheaves or turning blocks for genoa and spinnaker sheets, or snatch blocks if these are used in place of turning blocks.
(g) Floorboards as normally used.
(h) Electronic equipment or other equipment used to record or analyze performance.
(i) One fixed pump or one portable handpump, including overboard discharge.

* World Sailing is not a National Authority (NA)

The following items may be removed from the yacht when measured afloat:

(a) Running rigging, including halyards, sheets, guys and tackles.
(b) Lifebelts or similar lifesaving equipment.
(c) Extras and spares.
(e) Tools and miscellaneous portable items not otherwise required to be on board.

Notes

Equipment - all items in the above Schedule shall be bona fide of the nature common to the usual fittings of a yacht. Unspecified equipment carried when racing shall not be of the nature of ballast or merely carried for the purposes of stiffening the yacht. Consumable stores carried when racing shall not exceed 30kg including liquids.

No unspecified equipment shall be stowed below cabin floor, but light articles not specified may be stowed below the cabin floor, if the specific gravity of such articles does not exceed that of salt water.

Free flooding compartments shall be prohibited.

The material used for the ballast keel and fixed inside ballast shall be no heavier than lead.

(For the position of anchors and chains and gear during Measurement see Measurement Instruction 26 - "Afloat Test".)

23. **MAST** (See Measurement Instruction 27)

The mast shall have a minimum diameter at half the height from deck to jib halyards of 137mm.

The diameter may be reduced by 5 per cent at the deck, 20 per cent at the jib halyards, and 50 per cent at the highest point of measurement.

A wooden mast shall be solid from the step to 300mm above the deck, excepting that for passing halyards a hole shall be permitted, the area of which shall be added to the sectional area of this part.

The athwartships dimension of masts, which are not round, may be reduced by not more than 10 per cent, provided that all transverse measurements fall on or outside of a profile connecting with a fair rounding taper, the required points. If the athwartships dimension is reduced, as permitted, the fore and aft dimensions may be increased by not more than 35 per cent of the actual athwartship dimension at any point. No section of the mast shall have less area than the area of a circle of the diameter determined by a fair line throughout the given rule diameters. The fore and aft dimension may be exceeded by not more than 30mm to cover luff groove or track, and this addition shall not be included in computing the sectional area of the mast.

If the mast is solid it may be reduced in diameter by 8 per cent.

The weight of masts, including all fixed fittings, shall be not less than 63.51kg. Centre of gravity of mast shall be not less than 4.940m above a point 90mm above the sheerline.

Fixed Fittings:

Mast head fittings for standing and running rigging.
All mast bands, sail tracks and fittings, but excluding crosstrees spreaders and struts.
Boom bands on track, excluding gooseneck slide or swivel.
Spinnaker boom track or fitting, excluding slide.
All cleats, eye bolts, etc, on the mast, required for the efficient handling of the sails, excluding mast

* World Sailing is not a National Authority (NA)

winches.
No running or standing rigging shall be included in the mast weight but should the halyards run inside the mast the sheaves shall be included but not the rigging.

Permanently bent masts, rotating masts, double-luffed sails, and similar contrivances are prohibited. For the purpose of this rule a permanent set not exceeding 100mm between the upper and lower measurement bands is permitted.

Measurement band:

The height of the top of the coloured band on the mast marking the lowest position of the boom for the measurement of sail area, measured from a point 90mm above the sheerline shall be not less than 400mm and not more than 1100mm. A yacht with a valid rating certificate issued before 1st March 1976 shall comply with either this requirement or the rule current when the original rating certificate was issued.

24. BOOM

The boom, including sailtrack, without other fittings, shall be able to pass through a circle having a diameter equal to 137mm (the rule diameter of the mast).

A boom shall not be made permanently concave in a fore and aft direction. Permanently or mechanically bent booms and struts and outriggers on booms shall be prohibited. A boom which bends either vertically or horizontally shall be permitted unless the bend is accentuated or induced by a force physically applied for the purpose of bending it.

For the purpose of this rule a permanent set not exceeding 50mm is permitted.

Vangs if used shall not exceed two in number, one of which may be a fore guy. (Note: the purpose of (a) the mainsheet, is to trim the boom, (b) vangs and guys, is to hold the boom down and/or forward.) The depth of the boom at any point shall not exceed twice the width. A jackstay or rail, if used, shall be fixed in the fore and aft line of the boom.

25. CREW

The maximum number of persons on board during a race shall be 5.

The above is for international racing, each National Authority may make its own rules for racing amongst themselves.

26. CONSTRUCTION REQUIREMENTS

26.1 The hull and deck shall be constructed according to specifications detailed on an "ISMA Building Form" which shall be approved by a Classification Society or for boat built after 1st June 2007 a nominated structural consultant who shall be appointed by the World Sailing in consultation with the Class Association. Construction may be of GRP or timber or any combination of these materials.

26.2 Compliance with the following requirements does not ensure that a yacht is of adequate strength. The construction and structure of the yacht is the responsibility of the owner and his designer and builder, not the World Sailing, ISMA or structural consultant.

The Classification Society or structural consultant approval of the "ISMA Building Form" is limited to ensuring compliance with the materials weight and weight distribution requirements in this Rule which

* World Sailing is not a National Authority (NA)

will be verified by survey as required by 26.9.

26.3 The minimum weights permitted for the various components of the yacht are as follows: The weights of the centreline structure, the beam shelf equivalent, the floor structure and the ring frames are in addition to the basic panel weight required under 26.5(d).

26.4 The glass fibre contents by weight, for the purposes of assessment under this Rule, shall be taken as follows:

CSM:	40% glass
Woven Roving:	55% glass
Unidirectional Roving:	60% glass

If vacuum and/or auto-clave techniques are employed in the laminating process, then the builder is to demonstrate that the achievement of the minimum required weights has been complied with to the Surveyor's satisfaction. Gel coats and other cosmetic finishes are to be in addition to the minimum weights required by these Rules. However, an allowance of 0.15 kg/m^2 for epoxy coating per surface for timber construction is permitted within the minimum defined panel weights. Similarly a "bonding" allowance of 0.2 kg/m^2 shall also be made between layers of timber and for the bonding of a core to a cured laminate.

26.5 Minimum Weights of Structure and Dimensional Restrictions

(a) Centreline Structure

	kg/metre	max total width mm
Keel	9.07	450
Stem Head	4.04	200
Stem Heel	4.54	250
Stern Post	4.04	200
Counter structure	3.03	150

(b) Arrangement of Floors and Ring Frames

Transverse structural floors shall be fitted over the 3/4 LWL region at a frame spacing not exceeding 250mm.

These floors shall have minimum weights and dimensions as follows:

Location of Floor	Longitudinal kg/m	min total width mm
At 55% station	1.5	700
At 3/4 LWL ends	1.0	500

The weight of the cockpit sole shall not be included in these floor weights.

Two ring frames each having a minimum weight of 8 kg shall be fitted in way of the mast.

(c) Gunwale Angle (Equivalent to the Beam Shelf)

Location	Basic weight kg/m run (each side)	Max depth below sheer and width onto deck
Gunwale Angle within 3/4 LWL	1.8	200

* World Sailing is not a National Authority (NA)

	Gunwale Angle outside 3/4 LWL	1.3	150

(d)

Shell Location	Basic weight kg/m^2
Sides within 3/4 LWL	11.32
Sides outside 3/4 LWL	10.84
Bottom within 3/4 LWL	11.81
Bottom outside 3/4 LWL	11.24

The bottom shell is to extend not less than 150mm above DWL.

In the case of a framed or longitudinally stiffened single skin construction the minimum panel weight (excluding framing) shall be not less than 70% of the above values.

(e)

Deck Location	Basic weight kg/m^2
Within 3/4 LWL of	9.01
Outside 3/4 LWL of	8.15
Transom/Retrousse stern	8.15

The above weights are inclusive of any beam weights but not of carlins and cockpit surrounds, which shall be in addition to the above.

In the case of a framed or longitudinally stiffened single skin, construction the minimum panel weight (excluding framing) shall be not less than 70% of the above values.

26.6 The minimum weight of the rudder and stock shall be 12.5 kg.

This shall be verified at measurement by the Class Measurer and may be checked at regattas.

26.7 Materials

The materials permitted for the construction of hulls are as follows:

(a) Fibre reinforcements
Only glass fibres of type "E", "R" and "S" are permitted. Reinforcements of higher specific modulus are prohibited.

(b) Resins
Polyester, vinylester and epoxy type resins are permitted as are all bonding compounds.

(c) Timber
Wood of any species is permitted.

(d) Fastenings
Any commercially available fastenings are permitted. The weight of any fastenings shall be additional to the above minimum defined weights of structure.

(e) Core Materials
Timber and thermoplastic cores are permitted. These shall have a density of not less than 70 kg/m^3. Aramid and aluminium honeycomb cores are prohibited.

26.8 Plan approval

Prior to commencement of construction the completed ISMA Building Form shall be submitted to the Classification Society or for boat built after 1st June 2007 the World Sailing nominated structural consultant for its approval together with a full material specification for each component to enable confirmation of the design weight. Commencement of building prior to approval shall be at the

* World Sailing is not a National Authority (NA)

owner's risk.

Upon approval, signed copies of the ISMA building form shall be distributed as follows:

- three copies to the owner's representative
- one copy to be retained by the Classification Society or structural consultant.
- one copy by ISMA

26.9 Survey of construction

It is the purpose of the survey to check that the materials, scantling weights and weight distribution approved on the ISMA Building Form have been observed. The number of visits required for a surveyor will vary with the type of construction but the minimum number of visits during building shall be four and these shall be signed off and dated on the Building Form. It shall be the builder's responsibility to complete the Building Form as work progresses - noting the details of the materials actually used and the date of application. Compliance forms should be signed by the owner and the designer, as well as the surveyor and the builder.

On completion of construction one ISMA Building Form shall be signed by the surveyor, the owner's representative and the builder confirming compliance with these rules.

This signed Building Form shall then be returned to the Classification Society or structural consultant with copies to the ISMA and to the owner's representative.

27. CERTIFICATE OF RATING (see Measurement Instruction 29)

To obtain a Certificate of Rating:

(a) for a new yacht, the owner shall apply to his National Authority for a sail number and pay the Hull Royalty to World Sailing; [In countries where there is no MNA, or the MNA does not wish to administer the class, its administrative functions as stated in these class rules shall be carried out by the International Six Metre Association.]

(b) the owner shall arrange for a measurer;

(c) the owner shall provide the measurer with the Building Form issued and signed by the classification society or structural consultant in accordance with Rule 26.8;

(d) the draft of the measurement certificate shall be approved by a special measurer appointed by ISMA, who will satisfy himself that the rating has been correctly calculated.

28. ERRORS IN THE CERTIFICATE

Should the certificate under which a yacht has sailed in any race or races be proved to have been incorrect for any reason, the National Authority may, after inquiry, correct such certificate as they deem proper, and may revise the claims of the yacht to the prizes which she may have been awarded in such race or races.

29. OBLIGATIONS OF OWNER RESPECTING CERTIFICATE

29.1 The Certificate of Rating shall cease to be valid:

(a) Four years after the date of issue;
(b) If there is any change in the yacht's displacement or trim that may alter any of the

* World Sailing is not a National Authority (NA)

measurements on the Certificate of Rating;

(c) If there is any change made to the hull or its appendages that may alter any of the measurements on the Certificate of Rating;

(d) If any dimension of the rated sail area is increased;

(e) If any alteration is made which would cause the yacht not to comply with any requirements of the scantling or rating or her rating certificate.

(f) On change of ownership. Where the change of ownership

- is between existing co-owners,
- involves the introduction of a new co-owner or owners,
- is a transfer of ownership to or from a corporate entity controlled by the existing owner or the intended future owner

an application should be made to ISMA for a ruling as to whether revalidation is required. In such cases the ISMA ruling will be final.

In such case the owner or his representative shall forthwith notify in writing the invalidity of the certificate to the National Authority. A renewed certificate shall afterwards be issued, to be in force from the completion of remeasurement, and appropriate surveys, or from the date the certificate expires under clause (e).

It is the responsibility of the owner, or his representative, to ascertain from time to time, by inspection of the marks, whether the immersion of the yacht has from any cause whatever become such as to render the certificate invalid.

In the event of major damage, repairs or extensive modifications affecting more than 10% by weight of the structure (ballast keel not included) details of the rebuild shall be submitted on an ISMA Building Form to the Classification Society or structural consultant for approval and the rebuild is to be surveyed.

29.2 In the case of Rule 29.1(a) above, the Certificate may be revalidated following a successful weight and float test and receipt of a declaration from the owner that no changes have been made or which invalidate the measurement certificate.

29.3 In the cases of Rule 29.1 (b), (c), (d), (e) and (f) a new Certificate may be issued following partial or complete remeasurement or resurvey, as appropriate.

29.4 The owner shall be responsible to see that the yacht, its spars, sails and equipment comply with the scantling and racing rules at all times while racing.

30. ADVERTISING

Advertising is allowed in accordance with regulation 20, however competitor advertising on the **boat** as per regulation 20.3.2 is restricted to the following areas:

1) On spinnakers
2) On the transom of the yacht
3) On flags hoisted on the forestay when moored

In addition a yachts may not be named with an Advertising name as defined in World Sailing Advertising Code, see World Sailing Regulation 20. (www.sailing.org/regulations)

31. INSPECTION TO BE PERMITTED BY OWNER

Every owner sailing under these rules shall permit all reasonable inspection by or on behalf of the National Authority, and shall afford all reasonable facility to carry out such inspection in regard to measurements, marks, fittings, and such other matters as fall within the scope of a measurer's duty.

* World Sailing is not a National Authority (NA)

32. WEIGHING YACHTS

A yacht shall be weighed at the time of the inspection of flotation marks before her first certificate of racing is granted. The weight found shall be entered on the certificate of rating. This certificate of rating shall be accepted in other countries, subject to the right of the National Authority to weigh the yacht again in special circumstances. The weight of all loose ballast and its position shall be noted on the certificate of rating.

If a remeasurement is required owing to an alteration of the keel, the yacht shall be reweighed, but if a remeasurement is required owing to an alteration of the loose ballast, or for other reasons, it is not necessary to reweigh the yacht, but such alterations shall be noted on the certificate.

33. MATERIALS

The Mast shall be constructed of:
1. Wood of any species
2. Normal commercially available aluminium alloys (i.e. 5000 or 6000 series).

Paints, varnishes and fillers for the same are acceptable and may be used to bring an undersized tube up to Rule dimensions. When applied to spars 'solid' shall be interpreted as being of one type of material only, of approximately constant density.
Spreaders shall be made of timber, aluminium alloy or stainless steel.

The Boom shall be constructed of:
1. Wood of any species
2. Normal commercially available aluminium alloys (ie 5000 or 6000 series).

The Spinnaker Pole and its associated fittings, and tiller extensions - may be of any normally available commercial material.

Reinforcements to repair or strengthen an existing spar that was originally built to comply with this Rule, or to repair or strengthen a hull or deck that originally conformed to Rule 26, may be of any normally commercially available material.

Rigging - Shrouds and Forestay shall be of normal commercially available Stainless Steel wire or rods made of materials such as Nitronic 50.

Rudder - Any normal commercially available materials may be used for the construction of the rudder.

Sails and running rigging, and the standing parts of running and standing backstays may be made of any material.

34. CLASS EMBLEM, NATIONAL LETTER(S) AND DISTINGUISHING NUMBERS

The class emblem (number 6 underlined) of minimum height of 400 mm shall be displayed on the mainsail.

National letter(s) and distinguishing numbers shall be as laid down in Racing Rules of Sailing Appendix G, except that the minimum dimensions in G.1.2.(b) shall be for boats over 11 metres in length. National letters and numbers are not required on headsails and therefore G.1.3.(c) (1) and (2)

* World Sailing is not a National Authority (NA)

shall not apply.

35. HIKING

No rope, wire, rail, handhold or other special device shall be used by any member of the crew for the purpose of supporting his weight outboard of the sheerline. However, the use of the headsail, spinnaker and/or main sheets, held solely by the hands, for hiking purposes is permitted. When hiking in the sitting position no part of the crew's body between the middle of the thigh and feet shall be outboard of the sheerline. When hiking in the prone position, at least one full arm and one full leg shall be inboard of the sheerline.

36. INTERNATIONAL CLASS FEE

The International Class Fee (ICF) shall be paid by the owner to World Sailing which issues to the owner a World Sailing/ISAF plaque and a receipt.

The amount of the ICF shall be revised annually by the World Sailing in consultation with the International Six Metre Association.

The World Sailing/ISAF plaque shall be affixed to the inner starboard hull skin in the region of the 55% girth station in a clearly visible position. Boats first certificated before 1 January 1991 are not required to have a plaque.

37. ELECTRONICS

Electronic instrumentation shall be limited to that which deals with on board generated information only. A boat shall neither make radio transmissions while racing nor receive radio transmissions not available to all boats. This restriction applies to mobile phones.

Issued: 11 January 2023, Effective: 11 January 2023, Last issued 1 March 2022

* World Sailing is not a National Authority (NA)

MEASUREMENT INSTRUCTIONS

M1. TRANSLATIONS

Each National Authority may issue a translation of these instructions for the use of the measurers.

M2. MEASURERS

Measurers of any National Authority shall not measure:

(a) yachts which they have themselves designed or built or in the construction or alteration of which they have in any respect taken part:

(b) yachts which have been built by firms in which they have a business interest;

(c) yachts of which they are themselves the owners or part owners.

If necessary, in such cases a special measurer may be appointed for the purpose by the National Authority.

M3. EXTRA MEASUREMENTS FORBIDDEN

The measurers are not permitted to take other measurements than those necessary for determining the rating, except as may be expressly enjoined by the National Authority.

M4. SCHEDULE OF EQUIPMENT

The measurer, before certifying the measurements as complete (see measurement Instruction 8), shall satisfy himself that the yacht conforms with Rule 22.

M5. DOUBTFUL CASES

If from any peculiarity of build, construction, or fitting of any yacht, the National Authority, on the report of the measurer, is in doubt as to the application of the rules or instructions, or the calculation of the rating, they shall report the case to the World Sailing which after due enquiry shall award such certificate of rating as it may deem equitable; and the measurement shall be deemed incomplete (see Measurement Instruction 6) until this has been done.

M6. CERTIFICATE OF RATING

Immediately the measurements are complete, the measurer shall forward the same to the National Authority and shall hand to the owner or his representative a statement in the following form:

I beg to inform you that the measurement (or re-measurement) of yacht ..... is complete. The certificate, stating the rating of the yacht, will follow in due course.

Signed this ..... day of ..... official measurer.

* World Sailing is not a National Authority (NA)

M7. MEASUREMENTS AND CALCULATIONS

Metres - all decimals beyond the 3rd place shall be disregarded.
At the time of measurement, ashore and afloat, backstays, runners and forestays shall be slack.

M8. MEASUREMENT INSTRUMENTS

All measurements shall be taken with a steel tape or with rods (or ordinary measuring rule may be used in case of measurements if less than one metre); and all such instruments shall be approved by the National Authority.

M9. MEASUREMENT BOOKS

The measurements shall be entered in a book with printed measurement forms approved or supplied by the National Authority; and such books, as entered up, shall be at all times open to inspection by the National Authority, or by World Sailing if required. All measurements shall be taken twice and a third time if there is material disagreement, and recorded in the measurement book.

The form of measurement book recommended is shown in Measurement Instruction 29 and is the same as the text of a certificate of rating.

PLACING THE MARKS IN POSITION ON THE HULL

M10. MARKS SHALL BE OF STANDARD PATTERN

The measurement marks shall be of the size given in Measurement Instructions 12 and shall be of durable plastic or metal and shall be permanently fixed to the hull. The several marks shall be referred to in these instructions by the letters by which they are denoted in the list below.

M11. VERIFICATION OF MARKS

The marks shall be affixed at the expense of the owner and their positions verified by the measurer.

* World Sailing is not a National Authority (NA)

M12. ENUMERATION OF MARKS

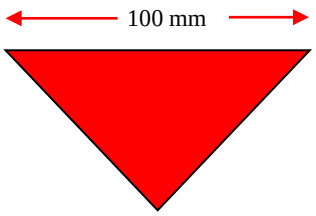
The requisite marks shall be as follows:

No Required	Description	Position
2	Upper length marks L_1	Ends of measured length
2	Lower length marks, L	Ends of L.W.L.
2	Upper d marks, d	Sheerline at 0.55 girth station
2	Immersion marks, I	L.W.L. at 0.55 girth station
2	Lower d marks, d_1	Sides of vessel below water amidships
4	Overhang girth marks, O	Ends of measured length see measurement instruction 13
1	Outer after length mark, L_2	As prescribed in rule 3
2	Outer overhang girth marks O_2	Vertically above the outer after length mark, L_2

The length marks, L, L1 and L2, shall be rectangular marks not less than 12mm in width and 150mm in length.

The d and overhang marks d, d1, O and O2, shall be round marks of 20mm in diameter.

The immersion mark I is to be in the shape of an isosceles (45%) right-angled triangle with the hypotenuse uppermost and the right-angle pointing downward, measuring 50mm in the vertical plane and 100mm in the horizontal plane :



Lower angle: 90º

M13. DESCRIPTION OF MARKS AND FIXING THEM ON YACHT

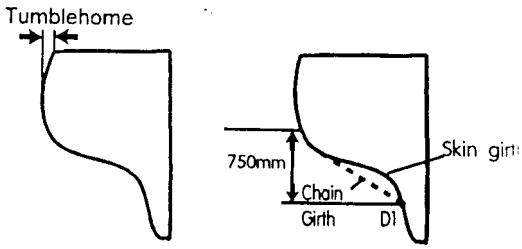
Before the official measurer measures a yacht the marks enumerated in measurement instruction 14 shall be provisionally placed in position as nearly as possible by the owner's representative (i.e. the designer or builder) as follows:

(a) The waterline marks, L, at the ends of the waterline. In a transverse plane, at a right angle to the waterline, so that the outer edges of the marks denote the waterline ending (see figures 1 and 2 and instruction 20) and as close to the centreline of vessel as possible:

(b) The upper length marks, L1, at the ends of the measured length on the upper length marks, L_1, and L_2, on the after part of the counter in a transverse plane at a right angle to the waterline (see figures 1 and 2) and as close to the centreline of the vessel as possible.

They shall be fixed so that their outer edges shall be at the height above the waterline as follows:

Vertical height of mark L_1 above L.W.L. shall be 90mm



Midship cross-section at 0.55 x LWL from forward end of LWL

* World Sailing is not a National Authority (NA)

Vertical height of mark L_2 above L.W.L. shall be 180mm.

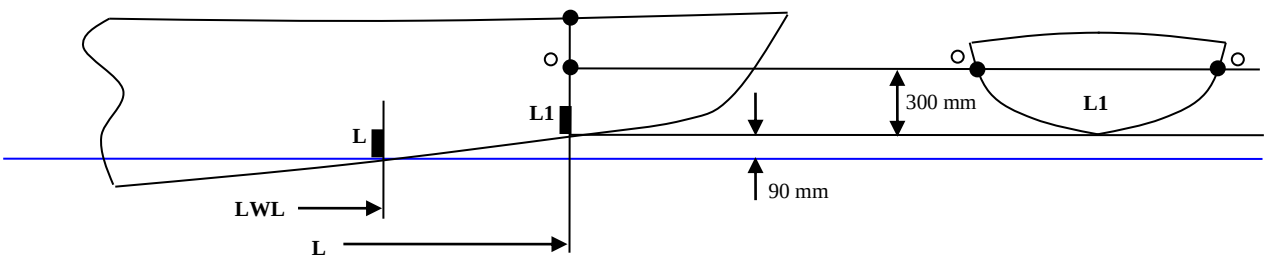
(c) Overhang girth marks O at bow shall be fixed so that their centres shall be vertically above the outer edges of the L_1 marks, and at the following height above the L_1 marks:
Vertical height of bow O marks above L_1 marks shall be 300mm.

(d) Overhang girth marks O and outer overhang girth marks O_2 at stern on the edge of or close below the sheerline, one on each side of the yacht, centres vertically above the outer edges of the L_1 and L_2 marks respectively (see figures 1 and 2):

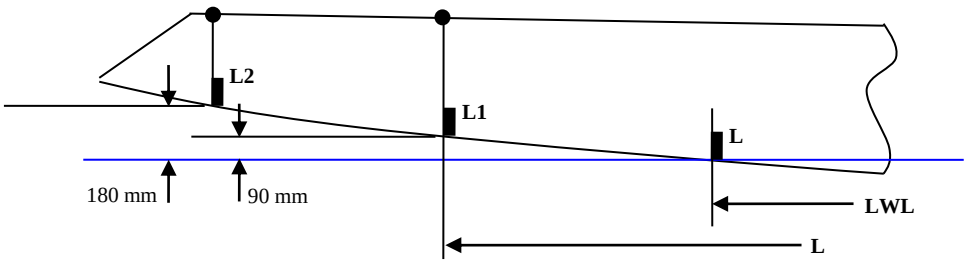
(e) Upper d marks on the edge of or close below the sheerline, one on each side of the yacht at the girth station 0.55 L.W.L. from the fore end of the L.W.L.:

(f) Immersion marks I on both sides of the yacht shall be plumb under marks d and the bottom corners just touching the waterline. (See Measurement Instruction 12):

(g) Lower d marks d_1 and on each side of the yacht at a point plumb under the centres of the marks d and I, so that the three marks shall be situated in the same transverse plane and shall be vertical to the L.W.L.
The marks d_1 shall be fixed at a vertical distance of 750mm below the L.W.L.



Bow Profile **Section Through Bow at L1**



Stern Profile

* World Sailing is not a National Authority (NA)

MEASUREMENTS TO BE TAKEN ASHORE

M14. OVERALL LENGTH

The overall length shall be measured along a level line above the deck, from the plumb of the foremost point of the hull to that of the aftermost point, exclusive of rudder. Should there be any doubt as to the precise point to which the measurement should be taken, the point actually taken for measurement shall be clearly described in the measurement book.

M15. BEAM

For measuring the extreme beam, a plumb-line shall be suspended on each side of the yacht from the transverse batten, so that both hang just clear of the side when the yacht is upright, and the distance shall be measured between the lines at the position defined in Rule 11. The lines shall hang clear of any mouldings, wales, or doubling planks but not of channels. The measurement shall be tried in several places, and finally taken where found greatest.

The beam on deck shall also be measured to ascertain that the tumble home does not exceed the 2 per cent permitted by the rule.

M16. MEASUREMENT FOR d

Port Side

(a) Measure from the sheerline through the centre of the upper d mark d downwards on the skin surface of the yacht to the centre of the lower d mark d_1.
(b) Take a measurement between the same points with the tape pulled taut.

Starboard Side

Take similar measurements (a) and (b) on the starboard side.

M17. OVERHANG GIRTHS

The overhang girth at each end shall be the shortest chain girth; forward from the centre of the O marks on one side, to a point on the fore and aft profile line where it is cut by the vertical plane, through the outer edges of the upper length marks, L_1, and from this point to the O mark on the other side. The aft measurements shall be made in a similar manner, but from sheerline to sheerline, through the centres of the O marks which are on the sheerline. The measurement to the L_2 and O_2 marks shall be taken in a similar manner.

M18. PROJECTIONS, NOTCHES, HOLLOWS AND DIAMETER OF RUDDER POST

The measurer shall see that the yacht conforms to rule 5 and shall, if necessary, test the surface of the hull between the L.W.L. and the sheer line with a straight-edge; with the exception of the hollows in the stern permitted by rule 5.

When the length of the yacht including the rudder at or below the waterline plane exceeds the length between the girth stations (i.e. the measured length), then this difference shall be added to the waterline length for computing the displacement and draught. The after "L" mark shall be placed on the after end of the waterline plane as prescribed in Measurement Instruction 20. The rudder post, or

* World Sailing is not a National Authority (NA)

main piece of rudder, measured athwartships shall not exceed 95mm when the rudder extends beyond the aft end of the waterline.

Should there be any hollows or notches in the stem, stern post or stern of the yacht within a vertical distance of 75mm above or below the flotation water line (Measurement Instruction 22(a)) they shall be bridged across within the limits of the said vertical distance; except that hollows aft below the flotation water line or above as permitted by class rule 5 shall not be subject to such bridging.

Such notches or hollows shall not affect the placing of the length marks, L, L_1 and L_2 or the overhang marks O and O_2. However, to the extent that bridging increases the length for measurement or the water line length, the increased length shall be used for the purpose of rating or displacement.

M19. YACHTS OF PECULIAR CONSTRUCTION

If from any form of construction the marks O and O_2 cannot be placed on the sheerline vertically above the L and L_2 marks respectively, they shall be placed as near thereto as possible and the overhang girth shall be measured at the points indicated by the marks as placed.

If for any reason there is placed any contrivance at the stem or stern in order to avoid the measuring of the overhang, such contrivance shall be disregarded in measuring the overhang girth. The hull of the yacht must be so shaped as to allow the placement of the lower "d" marks.

M20. WATERLINE LENGTH

The length to be recorded as the waterline length shall be the overall length as in measurement instruction 16, minus the sum of the overhang deductions at the two ends as specified in measurement instruction 22(a).

The aftermost ending of L.W.L. shall be taken as whichever of the following gives the greater measurement:

(a) The aftermost part of the hull or any extension thereof at or below the L.W.L., excluding the rudder and normal rudder hangings.

(b) The axis of the rudder stock. (In cases of yachts laid down prior to 1st November, 1970, 48mm shall be deducted from the L.W.L. in cases where the measurement is made under sub-section (b) and the extension of the hull by fairing strips to the centreline of the axis of the rudder stock is permitted.)

M21. MEASURED LENGTH

The length to be recorded as the measured length shall be the overall length as specified in Measurement Instruction 14, minus the sum of the overhang deductions at the two ends as specified in Measurement Instruction 22(b).

M22. OVERHANG DEDUCTIONS

(a) Deductions for waterline length

The overhang length shall be measured in a fore and aft direction, from the plumblines of the respective ends of the overall length, as just specified, to the edges furthest from midship of the respective marks L.

(b) Deductions for measured length

* World Sailing is not a National Authority (NA)

The overhang deductions shall be measured from the same plumb-lines, as specified above, to the edges furthest from midship for the respective marks L_1 and L_2.

If the marks L_1 and L_2 are wrongly placed, the measurer shall order them to be shifted into correct position.

Should it be necessary to shift the marks L_1 and L_2 to get them the proper height above the water level, the O and O_2 marks shall be shifted so as to be plumb above the L_1 and L_2 marks.

M23. FREEBOARD

The freeboard shall be the vertical distance from the water level to the sheerline through the centres of the marks O, d and O, forward, amidships, and aft on both sides of the yacht.

Freeboard shall also be taken at O_2 in a similar manner in order to determine the vertical heights required in Measurement Instruction 24.

M24. VERTICAL HEIGHTS

The vertical heights at bow and stern to be deducted from the girths at these stations shall be found as follows:

Bow - The amount of the vertical height deductions always equals 600mm.
Stern - From the mean freeboard at stern O and O_2, subtract the height above water of the mark L_1 and L_2 (see Measurement Instruction 13).

M25. WEIGHT

The measurer shall ascertain the yacht's weight by weighing as directed by the National Authority.

* World Sailing is not a National Authority (NA)

MEASUREMENTS TO BE TAKEN AFLOAT

M26. AFLOAT TEST

The measurer having verified the correct position of all marks and taken all measurements ashore, shall only be required to test the position of the marks by sighting when the vessel is put afloat. The measurer shall test that the measurement points indicated by the outer edges of the length marks "L" do not fall within the length immersed and to observe that the lower corners of the "I" marks just touch the water. When the measurer tests the position of marks or, if necessary, takes measurements afloat, the yacht shall be lying in smooth and still salt water (specific gravity 1.025) and she shall have on board the equipment named in Rule 22.

For the afloat test the anchors and warps shall be stowed in normal position. The mainsail shall be either stowed in the usual way on the boom, or if unbent shall be approximately amidships. The items named in Rule 22 shall be in their usual positions during the measurer's afloat test.

The measurer shall check that when the yacht is on a level keel in racing trim with all persons, sails, etc., on board she shall satisfy the requirements of Rule 20. Re-checking of this may be requested at any time.

Measurement of Yachts in Fresh Water

The certificate of measurement of a yacht measured in fresh water shall be valid in fresh water only, and shall not exempt this yacht from another measurement in salt water when she is going to race at sea.

A certificate of measurement of a yacht measured in salt water shall be valid in fresh water. However, when she is in fresh water, a club or a competitor may ask for the verification of her measurement, to make sure that the allowance for fresh water is not exceeded.

In the event of it being necessary to measure a yacht in fresh water, the measurer shall require the designer or builder to furnish him with a certificate showing the difference in the immersed length and freeboard in sea water of a specific gravity of 1.025 and fresh water of a specific gravity of 1.000, and the rating shall be calculated with an allowance according thereto, in the manner prescribed by the National Authority, with the concurrence of the World Sailing.

The measurement marks shall be fixed for the immersion in salt water with additional L and I marks for the immersion in fresh water.

The measurer shall measure the distance between the fresh water and salt water length marks, so placed, and see that it agrees with the difference named on the certificate furnished to him by the designer or builder.

The certificate of rating of a yacht so measured shall be endorsed 'fresh water certificate'.

* World Sailing is not a National Authority (NA)

MEASUREMENT OF SAIL AREA (for Bermudan sloops and cutters only)

M27. SAIL AREA

S = rated area of triangular mainsail(s) and rated area of foretriangle.

Area of triangular mainsail

Luff A. Measured from top of boom, where in its lowest position it cuts mast, to the top of the sheave, or coloured band at the after side of the mast. The lowest position of the boom shall be indicated by a coloured band on the mast, the top of which shall be in a line with the top of the boom and a permanent stop shall be fitted in conjunction with this band. No part of the headboard shall exceed in height the top of the sheave in first case and the lower edge of the band in second case.

Boom B. Measured from the inner edge of the coloured band at boom end along the top of boom to the after side of the mast excluding the track or jackstay; but if there is a groove in the mast for the sail, to the foreside of the groove.

$$\frac{A \times B}{2} = \text{Rated area of mainsail}$$

Area of fore-triangle and limit of head-sails

I. Where the foremost head-sail is set on a stay the height I shall be measured from a point 90mm above the sheerline at the foreside of the mast to where the aft side of this stay cuts the foreside of the mast or topmast.

Where the foremost head-sail is set flying or without attachment to forestay the height I shall be measured to where the line of the luff when extended cuts the foreside of mast or topmast. If the point of attachment of any contrivance suspending the head of the spinnaker is above the top of the normal fore-triangle, the measurement of I shall be taken to that point.

J. The base J shall be measured from the foreside of the mast (with it in its aftermost position) to where the aftside of the forestay to which the foremost head-sail is attached cuts the bowsprit, other spar or hull, etc,. as the case may be. Where the foremost head-sail is set without attachment to the forestay the base J shall be measured to where the line of the luff when extended cuts the bowsprit other spar or hull, etc.

$$0.85 \ \frac{I \times J}{2} = \text{Rated area of fore-triangle}$$

Where the foremost headsail is set on a head-foil into which the luff of the sail is fitted, the measurements of I and J shall be taken to the forward edge of the head-foil or its extensions to the mast and deck as necessary.

Where a sail measurement term appears in "**bold**" it shall be done in accordance with the World Sailing Equipment Rules of Sailing. All other sail measurements where applicable shall be measured in accordance with the IYRU Sail Measurement Instructions (1986). The measurer shall check that the largest Genoa is not capable of extending more than 3.0 m (0.5 of the rating) abaft the mast when first measured. Notwithstanding the requirements of the IYRU Sail Measurement Instructions (1986) sails in this class are not required to be made of woven fibre cloth.

Reinforcement of a sail may be of any size provided that it is flexible and capable of being folded without damaging the sail or the reinforcements.

* World Sailing is not a National Authority (NA)

Spinnaker Boom

In all classes if the length of the spinnaker boom exceeds the normal length of the base the excess shall be added to the base J. The spinnaker boom shall be measured from centre of fore-side of mast to the outer end of boom or end fitting with the boom shipped in its place and in any position from fore and aft to square off where the projection is greatest.

In the case of a yacht having no head-sail, but carrying a spinnaker, the area for head-sail shall be computed from the length of spinnaker boom, and the height from deck to where the line of the halyard of the spinnaker when extended cuts the mast.

A spinnaker shall not have more than one sheet or any other contrivance for extending the sail to other than a triangular shape.

* World Sailing is not a National Authority (NA)

FINDING OF RATING

M28. RATING FORMULA

$$\frac{L + 2d - F + \sqrt{S}}{2.37}$$

The measurer having taken, or been supplied with, all the measurements enumerated in these instructions, and being satisfied they are correct, shall record each measurement taken in a measurement book in the form shown in Measurement Instruction 29.

To find the rating of the yacht he shall add correct length L, 2d and the square root of sail area, S, set forth in the third column, then subtract freeboard, F, and divide by 2.37. The result shall be the rating.

* World Sailing is not a National Authority (NA)

M29. COPY OF MEASUREMENT BOOK, OR CERTIFICATE OF RATING

Overall Length			
Add (Overhang Forward to L_1 Add (Overhang Aft to L_1			
Subtract Total Overhang			
Measured Length			
Subtract (Girth at Bow Subtract (Twice Vertical Height at Bow			
0 at Bow			
Add 1 at Bow			
Subtract (Girth at Stern Subtract (Twice Vertical Height at Stern			
0 at Stern			
Add 1/3 0 at Stern			
Add any penalty at 0_2			
CORRECT LENGTH, L			
Subtract (Skin d to d_1 Port Subtract (Chain d_1 to d_1 Port			
d Port			
Subtract (Skin d to d_1 Starboard Subtract (Chain d_1 to d_1 Starboard			
d Starboard			
Add d			
2d			
Add to find sum of measurements			
Add (Mean Freeboard Bow 0 Add (Mean Freeboard Midship D Add (Mean Freeboard Stern 0 and 0_2			
Sum of Freeboards			
Subtract (1/3 sum) FREEBOARD, F			
$\sqrt{S}$			
Total of Measurements			
Divide by 2.37 = RATING =			

* World Sailing is not a National Authority (NA)

M30. OTHER MEASUREMENTS TO BE RECORDED BY MEASURER

Overall Length

Add (Overhang Forward to L
(Overhang Aft to L

Subtract Total Overhang

Water Line Length

Beam Extreme

Tumble Home

Approximate weight of, and fore and aft position of ballast inside

Weight by weighing in my presence

Minimum weight required by Rule

Areas of Sails

Mainsail =

Foretriangle Total =

Foretriangle Total x 0.85 =

Sail Area for Rating = S =

√S

M31. COMPLETION OF MEASUREMENT

When all measurements are complete the official measurer shall forward a copy of the same, and sailmaker's diagram, to the National Authority, which shall issue the certificate of rating.

* World Sailing is not a National Authority (NA)

APPENDIX A

Variations to the Class Rules for boats initially certificated and/or constructed prior to 31st December 1965 that meet the requirements of this Appendix.

It is recognised that older boats with wooden hulls of traditional plank-on-frame construction will have taken up water and gained weight through life. If they do float deeper than their original measured waterline then they would have to reduce sail area or remove ballast to maintain a rating of 6.00m. Appendix A is provided to allow such yachts to retain a sail area commensurate with their original measured waterline length. It is to apply only to yachts that have retained their original structure and construction techniques. Replicas of yachts that no longer exist, and which have been built later than 31 December 1965, do not qualify for the concessions allowed by this Appendix. Appendix A may not be employed to enable yachts to change their ballast and trim to best suit anticipated conditions.

A1. APPLICABILITY

Any boat initially certificated and/or constructed as an International Six-Metre prior to 31 December 1965 may be re-certificated as an International Six-Metre provided that she complies with either:

a. the current International Six-Metre class rules

or:

b. the current International Six-Metre class rules (including deck equipment, mast and rigging and cockpit areas) together with the permitted variations as specified in Sections A2 and A3 below. A yacht certified under A(1)(b) shall be certified as a Classic Appendix A yacht.

A2. LIMITATIONS

a. The hull shape shall be consistent with the original design intent.

b. Unless incorporated in the boats original design, boats shall have only one moving underwater appendage, which shall be a rudder mounted on the aft end of the keel.

c. The weight of any repair shall comply with class rule 26.

d. The yacht's lead ballast keel shall be no heavier than that fitted when originally certificated.

e. No additional ballast may be carried unless such ballast was recorded on the original rating certificate.

f. A yacht which is found to float at or higher than her original 55% Certificate flotation marks shall comply with the International Six Metre class rule.

A3. PERMITTED VARIATIONS

a. Boats may be updated to any pre-31 December 1965 hull and appendage configuration except that, unless incorporated in the boats original design, any bulge or irregularity adding volume to the canoe body below the defined waterline, a spade rudder and/or a separate skeg/rudder configuration shall not be permitted.

* World Sailing is not a National Authority (NA)

b. A boat whose underwater shape has been modified to a post-1965 design may be returned to its original pre-31 December 1965 underwater configuration.

c. Broken or decayed frames may be replaced by laminated frames using modern glues, provided that they comply with class rule 26.

d. Not more than 4 additional laminated or plywood ring frames, using modern glues, may be fitted. If fitted not more than 2 such frames shall be in way of the mast partners and not more than 2 in way of the running backstay turning blocks or attachments only.

e. Unless otherwise used in the same way in the original hull, for example the deck, sheet plywood may only be used in:
   - the replacement of decking
   - ring frames as specified in d above
   - splash boards
   - minor outfitting items of a non-structural nature such as storage lockers and floorboards
   - short-term temporary repairs.

f. A number of boats are fitted with wooden veneers or glass-fibre sheathing or other epoxy treatment over their existing planking and at least one boat has had her double skin construction removed and replaced with traditional mahogany planking. These alterations are within the International Six-Metre Rules. It is very strongly recommended that, in future restorations, replacement planking shall maintain the spirit of the original construction method and scantlings in all respects.

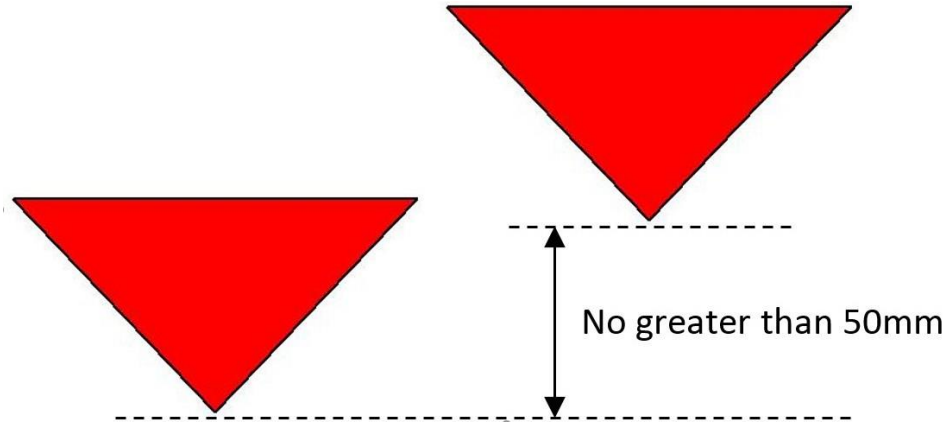
g. Measurement rule 20 – WATERLINE LENGTH is varied. Except when being certificated in accordance with rule A1a above, and subject to compliance with the other rules in this Appendix, the waterline length shall be taken to be that as recorded on the last valid rating certificate, or determined from the Measured Length as recorded on the last valid rating certificate, and all items of the rating related to this waterline length shall be in accordance with their appropriate class and/or measurement rule for that waterline length; see rule A3h below.

h. Measurement rule 26 - AFLOAT TEST is varied as follows:-

   i. A yacht shall have all the Six-Metre measurement marks placed in accordance with her original certificate, or lines or other drawings if her original certificate is not available. Published data in YRA or similar yearbooks is also acceptable for this purpose. The Midship Immersion Marks are to be in the shape of an isosceles (45^{o}) right-angled triangle, with the hypotenuse uppermost and right-angle pointing downwards, measuring 50mm in the vertical plane and 100 mm horizontally.

   ii. A yacht shall be fitted with additional Classic Immersion Marks (the triangle defined as in (i) above), adjacent to the M12 Rule Midships Immersion Marks. This additional mark shall be positioned so that its lower corner marks the yacht's actual flotation. The freeboard at this point shall be recorded on the Certificate. The lower point of this mark shall be no higher than 50 mm in a vertical plane above the lower point of the Rule M12 Midships Immersion Marks.

* World Sailing is not a National Authority (NA)



iii. For a yacht to satisfy this flotation test, the lower corners of the Classic Immersion Marks shall not be below the surface of the water (SG 1.025) in measurement trim.

iv. If a yacht meets the flotation test specified in (iii) above, then she may carry a rated sail area calculated using the waterline length defined in A.3(g).

v. If a yacht floats deeper than the flotation test specified in (iii) above, its rated sail area shall be reduced in the proportion of 0.75 sq metres for every extra 10 mm immersion.

vi. No yacht may adjust its flotation in the course of a regatta.

j. Measurement rule 29 – COPY OF MEASUREMENT BOOK, OR CERTIFICATE OF RATING is varied. Boats certificated in accordance with this Appendix rule A1b above shall have the front page of their certificate endorsed “CLASSIC APPENDIX A” by their certification authority. Additionally the certificate shall include the depth of immersion of the Midship Immersion Marks tested by the measurer in accordance with rule A3 g above.

* World Sailing is not a National Authority (NA)