

INTERNATIONAL MARBLEHEAD CLASS RULES





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INTRODUCTION

This introduction only provides an informal background and the International Marblehead Class Rules proper begin on the next page.

Certification and alterations

Marblehead Class hulls, hull appendages, rigs and sails are certified by certification control.

Marblehead Class hulls, hull appendages, rigs and sails may, after initial certification control, only be altered to the extent permitted in Section C of the class rules.

<u>Responsibility</u>

Owners and competitors should be aware that compliance with rules in Section C is NOT checked as part of the initial **certification control** process.

It is the responsibility of the owner and any other person in charge to ensure that a **boat** is maintained to comply with her **class rules** and that her **certificate** remains valid (RRS 78.1).

Deviations outside of tolerances

When an **equipment inspector** or **official measurer** for an event decides that a **boat** does not comply with the **class rules**, RRS 78.3 obliges them to make a report in writing to the Race Committee. When a Race Committee receives such a report they are obliged to protest the boat (RRS 60.2).

When the protest committee finds that deviations in excess of tolerances specified in the **class rules** are not caused by normal wear and tear and/or do improve the performance of the **boat**, it shall penalise her.

When deviations between a **boat**'s measurements and her **certificate** cannot be corrected as required by RRS 64.3 (a), the protest committee may consider accepting that the **boat** shall be brought into rating in another configuration before racing again.

If the protest committee decides that a **class rule** has been breached deliberately or knowingly by an owner or competitor they may call a hearing under rule 69.

Class rules

The rules regulating the use of equipment during a race are contained in Section C of these **class rules**, in ERS Part I and in the Racing Rules of Sailing.

The **class rules** for the International Marblehead Class are **open class rules** in which anything not specifically prohibited by the **class rules** is permitted. Individual rules may require, limit, or prohibit as necessary.

PART I - ADMINISTRATION

Section A – General

A.1 LANGUAGE

- A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
- A.1.2 The word "shall" is mandatory and the word "may" is permissive.
- A.1.3 Except where used in headings, when a term is printed in "**bold**" the definition in the current ERS applies and when a term is printed in "*italics*" the definition in the RRS applies.

A.2 ABBREVIATIONS

A.2.1 WS World Sailing

IRSA International Radio Sailing Association

MNA WS Member National Authority

DNM Designated National Member, IRSA Member

ICA International Class Association

NCA National Class Association

ERS Equipment Rules of Sailing

RRS Racing Rules of Sailing

A.3 AUTHORITIES

- A.3.1 Where one does not exist, the functions of the ICA, as specified in these class rules, shall be carried out by the IRSA.
- A.3.2 The **class authority** is the IRSA which shall co-operate with the ICA in all matters concerning these **class rules**.
- A.3.3 No legal responsibility with respect to these **class rules**, or accuracy of **certification**. rests with:

WS

the IRSA

the MNA

the DNM

the ICA

any NCA

the certification authority

an official measurer

No claim arising from these class rules can be entertained.

A.3.4 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so on the request of the IRSA.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 IRSA has delegated its administrative functions of the class to DNMs. The DNM may delegate part or all of its functions, as stated in these class rules, to an NCA.
- A.4.2 In countries where there is no DNM, or the DNM does not wish to administrate the class, its administrative functions as stated in these class rules shall be carried out by the ICA which may delegate the administration to an NCA.

A.5 SAILING INSTRUCTIONS

- A.5.1 These **class rules** shall not be varied by sailing instructions except as provided by A.5.2.
- A.5.2 At World or Continental Championships the sailing instructions may vary these **class rules** only with the agreement of the ICA.

A.6 CLASS RULES AMENDMENTS

A.6.1 Amendments to these **class rules** shall be proposed by the ICA, or a DNM, and require to be approved by the IRSA.

A.7 CLASS RULES INTERPRETATION

A.7.1 GENERAL

Interpretation of **class rules** shall be made in accordance with the IRSA Regulations.

A.7.2 AT AN EVENT

Any interpretation of **class rules** required at an event may be made by an international jury constituted in accordance with the RRS. Such interpretation shall only be valid during the event and the organising authority shall, as soon as practical after the event, inform the IRSA, the DNM and the ICA.

A.8 HULL REGISTRATION NUMBERS

- A.8.1 Registration numbers shall be issued by the **certification authority**.
- A.8.2 Registration numbers shall be issued in consecutive order starting at "1".
- A.8.3 Each hull shall have a unique registration number which shall include the national letters and the **certification authority**'s sequential registration number. Under no circumstances may a registration number be used on a **hull** other than the **hull** on which it was first used.

A.9 HULL CERTIFICATION

- A.9.1 For the **certification** of a **hull** all items required by the measurement form(s) to be **certified** shall be **certified** by an **official measurer** and the details entered onto the form(s).
- A.9.2 The measurement form(s), and **certification** fee if required, shall be sent to the **certification authority** in the country where the **hull** is to be registered within 4 weeks after completion of **certification**.
- A.9.3 Upon receipt of a satisfactorily completed measurement form(s) and certification fee if required within the 4 week time limit, the certification authority may issue a certificate.

A.10 VALIDITY OF CERTIFICATE

- A.10.1 A valid **certificate** is issued using the IRSA approved certification documentation in accordance with the procedures in A.9 and A.12. Certificates from other documentation or sources are invalid.
- A.10.2 A **certificate** becomes invalid upon:
 - (a) a change of ownership,
 - (b) withdrawal by the **certification authority**.

A.11 COMPLIANCE WITH CLASS RULES

- A.11.1 A **boat** ceases to comply with the **class rules** upon:
 - (a) use of equipment that does not comply, or causes the **boat** not to comply, with limitations in the **class rules**,
 - (b) use of equipment that does not comply, or that causes the **boat** not to comply, with limitations recorded on the **certificate**,
 - (c) alteration or repair of equipment required by the measurement form(s) to be certified, except where permitted by the class rules,
 - (d) a change of class rules that causes equipment in use to cease to comply, except where the equipment may comply with the class rules in force at the time of its previous certification.
- A.11.2 A **boat** that has ceased to comply with the **class rules** may be brought into compliance:
 - (a) when limitations affecting the equipment are in the **class rules** or on the **certificate**
 - by an **official measurer** carrying out **certification control** of affected equipment,
 - (b) and otherwise

by replacing equipment that does not comply with the **class rules** or **certificate** with equipment that does comply.

A.12 HULL RE-CERTIFICATION

- A.12.1 A **hull** may be issued with a new **certificate**, showing dates of re**certification** and initial **certification** as applicable:
 - (a) when a certificate becomes invalid upon change of ownership by application of the new owner to the certification authority in the country where the hull is to be registered. The application shall include the old certificate and re-certification fee if required. In the case of an imported hull the certification authority shall request the measurement form(s) from the

- previous **certification authority** and a new **hull** registration number shall be issued.
- (b) when a certificate has been withdrawn, or when the certificate and measurement form(s) cannot be located by application of the procedure in A.9.
- (c) when one or more alternative **certificates** are requested to be valid concurrently with an existing **certificate** by application of the procedure in A.9.

A.13 RETENTION OF CERTIFICATION DOCUMENTATION

A.13.1 The certification authority shall:

- (a) retain the original documentation upon which the current **certificate** is based.
- (b) upon request, transfer this documentation to the new **certification authority** if the **hull** is exported.

Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

- B.1.1 The boat shall:
 - (a) be in compliance with the class rules.
 - (b) have a valid **certificate**.
 - (c) have valid **certification marks** as required.

B.2 CLASS ASSOCIATION MARKINGS

B.2.1 A valid Class Association Sticker, if required by the NCA or the ICA, shall be affixed to the **hull** in a conspicuous position.

PART 2 – REQUIREMENTS AND LIMITATIONS

The competitor and the **boat** shall comply with the rules in Part 2 when *racing*. In case of conflict Section C shall prevail.

Certification to check conformity with rules of Section C is not part of **certification control**.

The rules of Part 2 are **open class rules** in which anything not specifically prohibited by the **class rules** is permitted. Individual rules may require, limit, or prohibit as necessary.

Certification, **equipment inspection** and measurement at an event shall be carried out in accordance with the current ERS except where varied in Part 2 and Part 3.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

The following ERS rules shall not apply:

- B.1.2 Mast Lower Limit Mark.
- B.2 Headsail Booms.

C.2 COMPETITOR

C.2.1 LIMITATIONS

- (a) One competitor only shall control the **boat**.
- (b) The competitor shall not be substituted during an event.

C.3 ADVERTISING

C.3.1 LIMITATIONS

The **boat** may display only such advertising as permitted by the WS Advertising Code.

C.4 HULL

C.4.1 LIMITATIONS

- (a) The **hull** shall not be substituted during an event.
- (b) Except for fittings the geometry of the **hull** shell shall not be changed during an event.

C.4.2 IDENTIFICATION

The **hull** registration number shall be displayed on the external surface of the **hull** clearly and legibly with a minimum height of 20 mm.

C.4.3 FITTINGS

Fittings shall not project fore or aft or transversely outboard of the **hull** in relation to the datum waterplane described in Figure J.2.

C.5 HULL APPENDAGES

C.5.1 LIMITATIONS

Except when a **hull appendage** has been lost or damaged beyond repair the same **hull appendages** shall be used during an event. Such replacement may be made only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to the replaced **hull appendage**.

C.5.2 DEPTH RESTRICTION

The depth restriction gauge, when oriented transversely as in Figure J.1, shall be capable of being passed under the **hull appendages** without either of the two upper corners of the gauge losing contact with the **hull**.

C.5.3 USE

The hull appendages:

- (a) containing or forming **ballast** shall not be rotated relative to the **bull**.
- (b) shall not be attached to the **hull** more than 15 mm from the **hull** centreplane.
- (c) shall not project fore or aft of the **hull** in relation to the datum waterplane described in Figure J.2.
- (d) shall not be moved, articulated, retracted or extended.

C.6 RIG

C.6.1 LIMITATIONS

- (a) Not more than six **rigs** and their **sails** shall be used during an event.
- (b) A **mast** or **boom** lost or damaged beyond repair may be replaced only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to

the replaced item.

C.6.2 USE

- (a) The rig shall not project fore or aft of the hull in relation to the datum waterplane described in Figure J.2.
- (b) RRS 51 is changed to the extent that the position of the **rig** counterbalance weight may be changed.

C.6.3 DIMENSIONS

	minimum	maximum
Deck limit mark to the mast lower point	G - 10	G + 10
Deck limit mark to the lower edge of the foretriangle height limit mark when G is at the certified value		1
Deck limit mark to the mast upper point		2160
Mast lower point to the mast upper point		Α

C.7 SAILS

C.7.1 LIMITATIONS

- (a) Not more than six **mainsails** and six **headsails**, with a maximum of three **mainsails** and three **headsails** from any A, B or C rig/sail group, shall be used.
- (b) The race committee may attach **event limitation marks** to **sails** at an event.
- (c) The minimum **mainsail luff** length used when *racing* shall be 990 mm.
- (d) When a **sail** has been lost or damaged beyond repair it may be replaced only with the approval of the race committee who shall then remove or cancel any **event limitation mark** attached to a replaced **sail**.

C.7.2 DIMENSIONS

The dimensions of the **sails** in each rig/sail group shall not exceed those on the **certificate** for that rig/sail group.

C.7.3 IDENTIFICATION

- (a) Sail identification marks shall comply with the RRS.
- (b) The class insignia shall be the letter "M" of dimensions: height

and width 25–30 mm, thickness 6–8 mm and shall be displayed on the mainsail above a straight line between the **three-quarter leech point** and the nearest point on the **luff**.

C.7.4 USE

- (a) When a **mast upper limit mark** is required, the **mainsail** shall be below the **mast upper limit mark**.
- (b) The **tack point** of the **mainsail**, projected at 90° to the **mast spar**, shall not be set below the upper edge of the **mast lower limit mark**.
- (c) When a foretriangle height **limit mark** is required, a line taken through the **tack point** and **head point** of the **headsail** shall cut the forward face of the **mast spar** lower than the lower edge of the foretriangle height **limit mark** when the **headsail clew point** is on the **hull** centreplane.
- (d) When a **sail** has a luff rope or spar sliders they shall be set in a track in the **spar**.
- (e) Not more than one **mainsail** and one **headsail** shall be set at a time.
- (f) A **mainsail** shall be set when *racing*.
- (g) **Sails** shall not be reefed.
- (h) A sail from any A, B or C rig/sail group shall not be used with a sail from another rig/sail group unless it is marked with the appropriate A, B or C rig/sail group letter and it complies with C.7.2.

C.8 EQUIPMENT

C.8.1 PROHIBITED

- (a) Except where achieved by mechanical systems, automated control of **rig** and/or **sails**.
- (b) Except where achieved by mechanical systems, automated steering and/or navigation.
- (c) On board camera(s).
- (d) The use of pictures from any source while *racing*.
- (e) Except for the establishment and maintenance of a radio control link, control unit positioning information, signal strength and

battery status information, radio transmissions from the **boat** while *racing*.

C.8.2 USE

Remote control and related equipment, if temporarily removed and/or replaced:

- (a) shall be refitted in the same position,
- (b) shall be replaced by equipment of similar weight.

Section D – Hull

D.1 GENERAL

D.1.1 RULES

The **hull** shall either comply with the **class rules** in force at the time of its initial **certification control** or comply with the current **class rules**.

D.1.2 IDENTIFICATION

The **hull** registration number shall be marked in an easily visible location on a non-removable part of the **hull** by any of the following means: painting on, engraving in, bonding in, moulding in.

D.2 HULL

D.2.1 DECK LIMIT MARKS

A deck **limit mark** for each rig/sail group, A, B and C recorded on the **certificate**, shall be displayed on the **hull** centreplane near to the relevant **mast** position. Each **limit mark** shall be a minimum of 5 mm in diameter.

D.2.2 MATERIALS

- (a) Except in remote control equipment, the density of material shall not exceed that of lead (11,340 kg/m³).
- (b) The forward 13 mm shall be of elastomeric material.

D.2.3 CONSTRUCTION

- (a) The **hull** shall be a **monohull**.
- (b) Except for the trunking for **hull appendages**, the **hull** shall not have:
 - (1) voids in the waterplane and/or the profile under the datum waterplane,

- (2) hollows in the plan view and/or the profile under the datum waterplane that exceed 3 mm,
- transverse hollows in the undersurface of the **hull** that exceed 3 mm when tested parallel to the waterplane as in Figure J.4.

D.2.4 DIMENSIONS

	minimum	maximum
Hull length in relation to the datum waterplane described in Figure J.2.	1275	1290
Hull beam	100	

Section E – Hull Appendages

E.1 GENERAL

E.1.1 RULES

Hull appendages shall comply with the current class rules.

E.2 HULL APPENDAGES

E.2.1 MATERIALS

Materials shall not be of density higher than lead (11,340 kg/m³).

Section F - Rig

F.1 GENERAL

F.1.1 RULES

Rigs shall comply with the current class rules.

F.1.2 CONSTRUCTION

- (a) A fitting shall be no bigger than is reasonably required for its purpose if it rotates or is attached to a rotating **spar**.
- (b) A fitting faired into a **spar** shall be considered to be part of the **spar**.

F.2 SPARS

F.2.1 LIMITATIONS

The **spars** used in a **rig** shall consist of no more than:

- (a) One mast spar,
- (b) One headsail luff **spar**,
- (c) Four **boom spars**.

F.2.2 MEASUREMENT

- (a) The **mast spar**, **boom spar** and headsail luff **spar** cross section:
 - (1) shall be taken to include: fairings, extensions, articulated flaps,
 - (2) shall be taken with movable parts set to give the greatest dimension,
 - (3) shall be taken at the junction of two **boom spars** as in Figure J.5 and
 - (4) except as in F.2.2 (a) (3), at a point shall be the largest cross sectional dimension perpendicular to the major axis of the **spar** at that point.
- (b) A **boom spar** which extends fore and aft of the mast **spar** shall be taken as two **boom spars**.

F.2.3 CONSTRUCTION

- (a) **Limit marks** shall contrast strongly with the colour of the surface they are placed on.
- (b) Except as in F.2.3 (c) and F.2.3 (d) **limit marks** shall be placed on each **mast spar**, as in Figure J.7, and as follows:
 - (1) an **upper limit mark**,
 - (2) a foretriangle height **limit mark**,
 - (3) a lower limit mark.
- (c) The **mast upper limit mark** may be omitted where the **rig** construction makes it impossible to exceed the "A" measurement recorded on the **certificate**.
- (d) The foretriangle height **limit mark** may be omitted where the **rig** construction makes it impossible to exceed the "I" measurement recorded on the **certificate**.
- (e) A **boom spar** with a cross section exceeding 20 mm in the regions permitted by F.2.5 shall not be joined to another **boom spar** in those regions.

F.2.4 MAST SPAR DIMENSIONS

		minimum	maximum
	Deck limit mark to upper point, H		2160
	Deck limit mark to foretriangle height limit mark		0.8 (A + G)
	Mast spar cross section above lower point		20
	Mast spar cross section below lower point		40
	Mast limit mark width	3	10
F.2.5	BOOM SPAR DIMENSIONS		
			maximum
	Length of junction where boom spars meet, a J.5	as in Figure	100
	Minimum combined boom spar cross section length of a junction, as in Figure J.5	over the	40
	Boom spar cross section within 100 mm of one end only of spar		40
	Boom spar cross section at other points		20
F.2.6	HEADSAIL LUFF SPAR DIMENSIONS		
			maximum
	Headsail luff spar cross section		20

Section G - Sails

G.1 PARTS

The **sails** used in a **rig** shall consist of no more than:

- (a) one trilateral mainsail,
- (b) one trilateral **headsail**.

G.2 GENERAL

G.2.1 RULES

Sails shall comply with the class rules in force at the time of their initial certification control or with the current class rules.

G.2.2 CERTIFICATION

The **official measurer** shall **certify sails** and add the following marks at the **tack**:

- (a) the date of **certification control**,
- (b) on **mainsails**, mark the measured area of the largest **mainsail** in the rig/sail group to which the **sail** belongs,
- (c) on **headsails**, mark the measured area of the largest **headsail** in the rig/sail group to which the **sail** belongs.

G.2.3 DEFINITIONS

Batten Pocket Point

The batten pocket point is defined as the intersection of the extended centreline of the **batten pocket**, or batten if there is no **batten pocket**, and the **leech.**

G.2.4 MEASUREMENT

- (a) During measurement:
 - (1) battens need not be removed,
 - (2) sails may be attached to spars,
 - (3) stays not exceeding 2 mm in diameter inside luff **tabling** need not be removed,
 - (4) tell tales overlapping the **sail edges** shall be ignored.
- (b) The **luff perpendicular**, **quarter width**, **half width** and **three-quarter width** shall be taken:
 - on a **double luff sail** with supporting **spar** in place: to the **luff**, or to the fore edge of the **spar**, whichever gives the greater dimension,
 - on a **sail** attached to **spar** section fairings, extensions and/or articulated flaps: to their foremost edges when fully extended,
 - on a **sail** with the **luff** set in a track in the **spar**: to the aft edge of the **spar**,
 - (4) on other **sails**: to the **luff**,
 - (5) discontinuous attachments on the luff shall be disregarded provided their total length measured along the luff does not exceed 10% of the luff length and the longest attachment is no more than twice the shortest.

- (6) with hollows in the **leech** and/or **luff** bridged using the method described in the ERS H.5.2.
- (c) The upper and lower **leech** profile is controlled as shown in Figure J.6.
- (d) Parts of **stiffening** which are less than 2 mm in diameter and not covered by sail material shall not be taken as parts of the **sail**.

G.2.5 CONSTRUCTION

- (a) The construction shall be: **soft sail**.
- (b) Except for the following, **stiffening** is prohibited:
 - (1) for battens
 - (2) at the **head**.
- (c) **Sails** shall be marked at the **clew** with their rig/sail group letter, or letters if the **sail** is to be used with more than one rig/sail group.
- (d) A **mainsail** shall have no more than four battens which shall be near the **leech.**
- (e) A **headsail** shall have no more than three battens which shall be near the **leech**.
- (f) The **foot** roach profile may be controlled by either of the following methods:
 - (1) Foot irregularity.
 - (2) Use of the **foot** roach gauge, as in Figure J.9.

G.2.6 DIMENSIONS

Top width as in Figure J.8:

of a double luff sail

of a sail with luff rope

of other sails

Extension of stiffening at the head from a point 20 mm forward of the aft head point on a line through the aft head point and head point

Foot irregularity, as in G.2.5 (f) (1)	3
Foot roach depth taken from foot to a straight line between tack point and clew point , as in G.2.5 (f) (2)	
Batten length	105
Batten width	20
Variation in the following measurements: between batten pocket point and adjacent batten pocket point(s), between clew point and adjacent batten pocket point, between head point and adjacent batten pocket	

G.3 SAIL AREA

point

G.3.1 LIMITATION

- (a) The measured sail area of each rig/sail group shall not exceed 0.5161 m².
- (b) Rig/sail groups A, B and C shall be recorded on the measurement forms in descending order of dimension 'A'.

G.3.2 CALCULATION

The measured sail area of a rig/sail group is taken as the sum of the following areas for that rig/sail group:

mainsail area, mm²	$A \times B / 2$
excess mainsail area, mm²	A × (2X + Y + 2Z) / 6
headsail area, mm²	$Q \times R / 2$
excess headsail area, mm²	$Q \times (2x + y + 2z) / 6$

where for that rig/sail group:

A, B, Q and R are the largest dimensions and

 $\boldsymbol{X},\,\boldsymbol{x}$ are the largest excesses in the **quarter widths** and

Y, y are the largest excesses in the half widths and

Z, z are the largest excesses in the **three-quarter widths** of all the **sails** in that rig/sail group as in Fig J.7.

PART 3 – APPENDICES

The rules of Part 3 are **open class rules** in which anything not specifically prohibited by the **class rules** is permitted, where individual rules require, limit, or prohibit as necessary.

Measurement shall be carried out in accordance with the current ERS except where varied in this Part.

Except where specified otherwise all dimensions are quoted in millimetres.

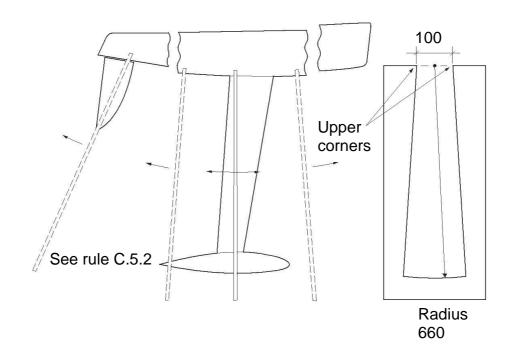
Section H – Measurement

H.1 MEASUREMENTS AND CALCULATIONS

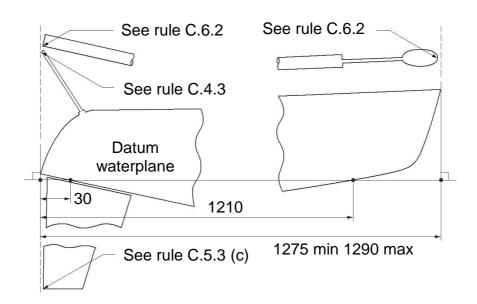
- H.1.1 Linear measurements shall be taken in millimetres and rounded up to the nearest whole number before being recorded on the measurement forms and/or certificate, used in subsequent calculations or compared with a limiting value.
- H.1.2 Maximum and minimum values of limitations in the **class rules** or **certificate** shall be taken as absolute limiting values.
- H.1.3 Calculated values in millimetres or square millimetres shall be rounded to the nearest whole number before being recorded on a measurement form or **certificate**, used in any subsequent calculations or compared with any limitation in the **class rules** or **certificate**.
- H.1.4 Calculated values in square metres shall be rounded to the nearest fourth place of decimals before being recorded on the **certificate**.

Section J - Figures

J.1 DEPTH RESTRICTION GAUGE

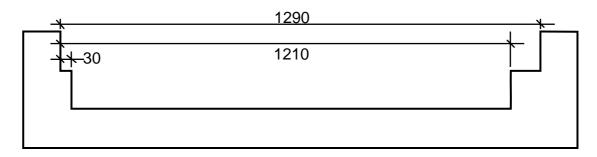


J.2 LENGTH & DATUM WATERPLANE

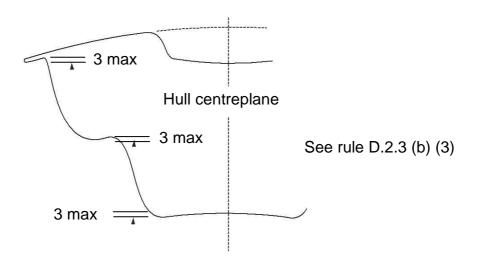


J.3 LENGTH RESTRICTION GAUGE

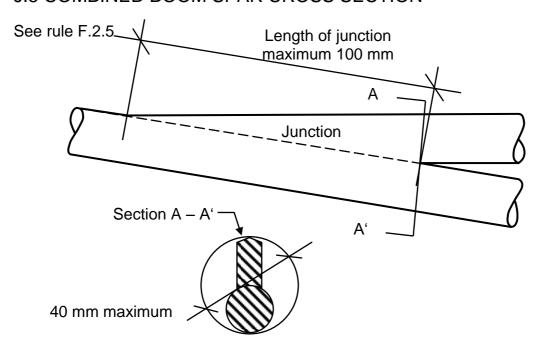
Gauge used to establish length and datum waterplane.



J.4 TRANSVERSE HULL HOLLOWS



J.5 COMBINED BOOM SPAR CROSS SECTION

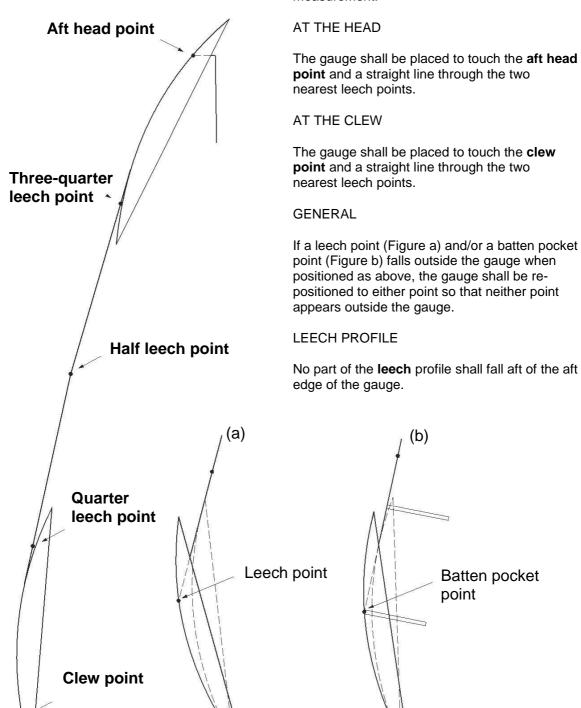


J.6 CONTROL OF THE UPPER AND LOWER LEECH PROFILE

See rule G.2.4 (c)

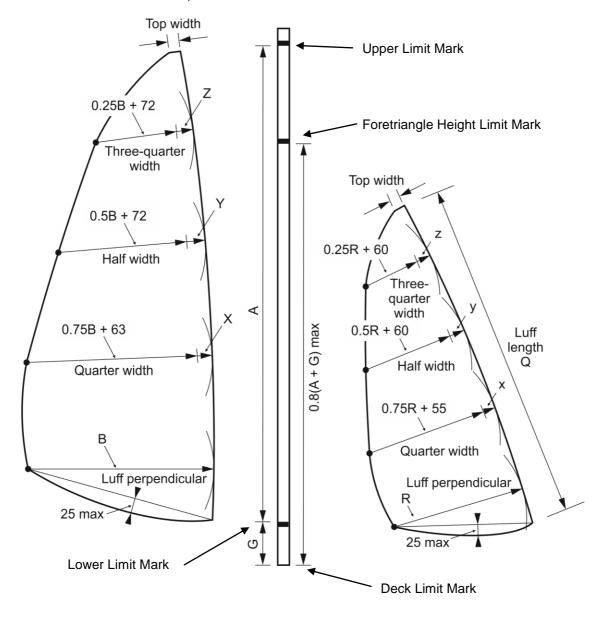
THE GAUGE

A gauge of 900 mm radius shall be used for this measurement.



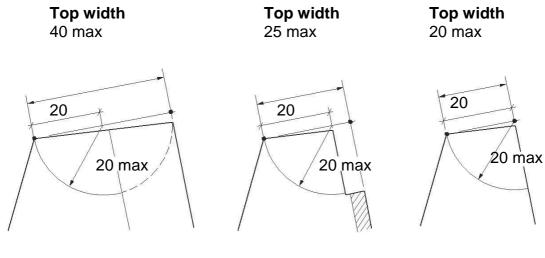
J.7 SAIL AREA MEASUREMENT

See rules F.2.3, F.2.4 and G.3.2



J.8 TOP WIDTH AND STIFFENING AT HEAD

See rule G.2.6



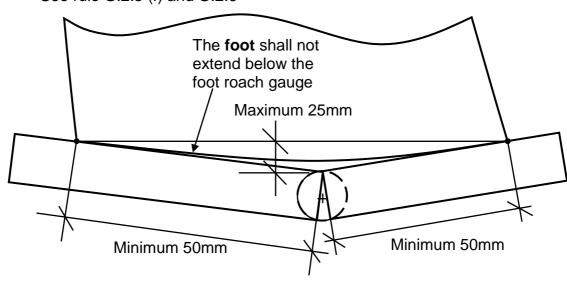
Double luff sail

Sail with luff rope or sliders

Other sails

J.9 USE OF FOOT ROACH GAUGE

See rule G.2.5 (f) and G.2.6



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