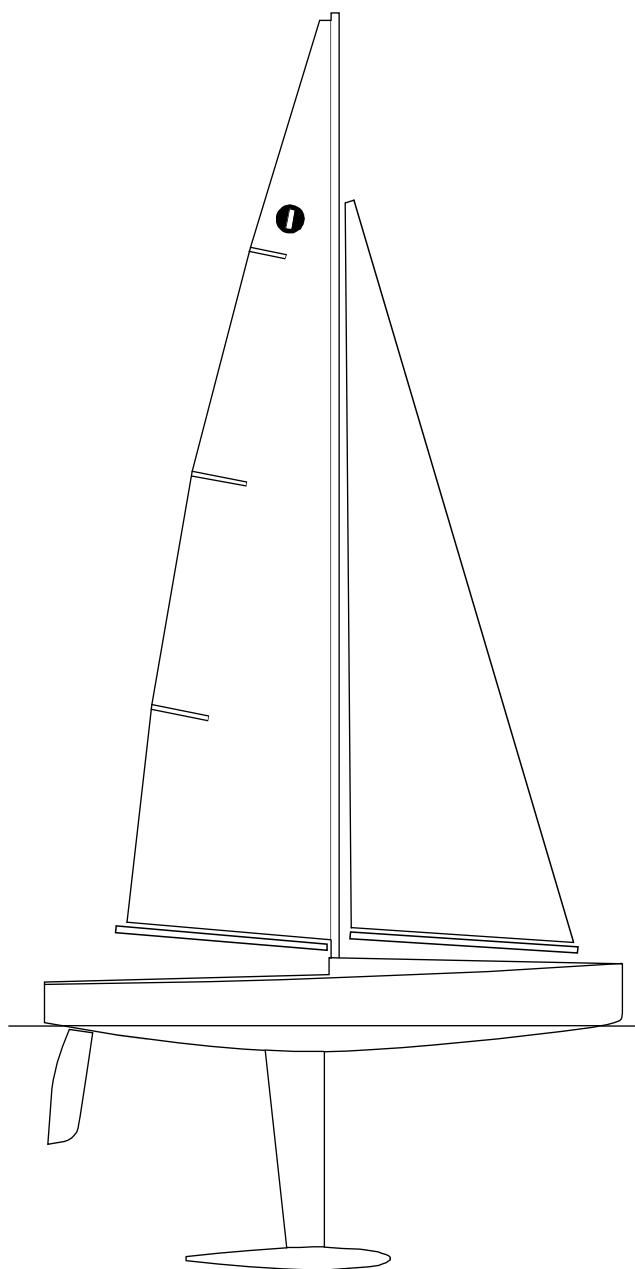


# INTERNATIONAL ONE METRE CLASS RULES 2013

Recognized by:



The One Metre class was developed by the IMYRU Permanent Committee  
and was adopted as an international class in 1988



# Index

Introduction

## PART I – ADMINISTRATION

### Section A – General

- A.1 Language
- A.2 Abbreviations
- A.3 Authorities and Responsibilities
- A.4 Administration of the Class
- A.5 ISAF Rules
- A.6 Championship Rules
- A.7 Sailing Instructions
- A.8 Class Rules Amendments
- A.9 Class Rules Interpretations
- A.10 Hull Registration Number
- A.11 Certification
- A.12 Validity of Certificates
- A.13 Compliance with Class Rules
- A.14 Re-Certification

### Section B – Boat Eligibility

- B.1 Certificate
- B.2 Class Association Sticker

## PART II – REQUIREMENTS AND LIMITATIONS

### Section C – Conditions for Racing

- C.1 General
- C.2 Crew

- C.3 Advertising
- C.4 Boat
- C.5 Hull
- C.6 Hull Appendages
- C.7 Rig
- C.8 Sails

### Section D – Hull

- D.1 General
- D.2 Hull

### Section E – Hull Appendages

- E.1 Parts
- E.2 General
- E.3 Keel and Rudder

### Section F – Rig

- F.1 Parts
- F.2 General
- F.3 Mast
- F.4 Booms
- F.5 Standing Rigging
- F.6 Running Rigging

### Section G – Sails

- G.1 Parts
- G.2 General
- G.3 Mainsail
- G.4 Headsail

## PART III – APPENDICES

### Section H – Illustrations

- H.1 Class Insignia
- H.2 Transverse Hull Hollows
- H.3 Leech stiffening zone

## ***Introduction***

*One Metre hulls, hull appendages, rigs and sails may be manufactured by any amateur or professional manufacturer without any requirement for a manufacturing license.*

*The rules in Part II and III are closed class rules which means that anything not specifically permitted is prohibited.*

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

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

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

# PART I – ADMINISTRATION

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## 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.2 ABBREVIATIONS

A.2.1	ISAF	International Sailing Federation
	IRSA	International Radio Sailing Association
	MNA	ISAF Member National Authority
	DNM	IRSA Member
	ICA	International Class Association
	NCA	National Class Association
	ERS	Equipment Rules of Sailing
	RRS	Racing Rules of Sailing

### A.3 AUTHORITIES AND RESPONSIBILITIES

A.3.1 The international authority of the class is the IRSA which shall co-operate with the ICA in all matters concerning these **class rules**.

A.3.2 No legal responsibility with respect to these **class rules**, or accuracy of measurement, rests with:

- the ISAF
- 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.3.3 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 The IRSA has delegated its administrative functions of the class to DNMs. A 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 administer 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 ISAF RULES**

A.5.1 These **class rules** shall be read in conjunction with the 2013-2016 ERS.

A.5.2 Except where used in headings, when a term is printed in “**bold**” the definition in the ERS applies and when a term is printed in “*italics*” the definition in the RRS applies.

## **A.6 CHAMPIONSHIP RULES**

A.6.1 The Class Championship Rules shall apply at World and Continental Championships.

## **A.7 SAILING INSTRUCTIONS**

A.7.1 These **class rules** shall not be varied by sailing instructions except as provided by A.7.2.

A.7.2 At World or Continental Championships the sailing instructions may vary these **class rules** only with the agreement of the ICA.

## **A.8 CLASS RULES AMENDMENTS**

A.8.1 Amendments to these **class rules** shall be proposed by the ICA and are subject to the approval of IRSA.

## **A.9 CLASS RULES INTERPRETATIONS**

### **A.9.1 GENERAL**

Interpretation of **class rules**, except as provided by A.9.2, shall be made in accordance with the IOM ICA Regulations.

### **A.9.2 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.10 HULL REGISTRATION NUMBER**

A.10.1 Registration numbers shall be issued by the **certification authority**.

A.10.2 Registration numbers shall be issued in consecutive order starting at “1”.

A.10.3 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.11 CERTIFICATION**

A.11.1 For a **hull** not previously **certified**, all items required by the measurement form(s) to be measured shall be measured by an **official measurer** and the details of **hull** and owner entered onto the **certification measurement** form.

A.11.2 The **certification measurement** form, 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 measurement**.

- A.11.3 Upon receipt of a satisfactorily completed **certification measurement** form and **certification** fee if required within the 4 week time limit, the **certification authority** may issue a **certificate**.
- A.11.4 The **certification authority** shall retain the original **certification measurement** form, which shall be transferred to the new **certification authority** upon request if the **hull** is exported.

## A.12 VALIDITY OF CERTIFICATE

- A.12.1 A **certificate** becomes invalid upon:
- (a) A change of ownership,
  - (b) Withdrawal by the **certification authority**,
  - (c) The issue of another **certificate**.

## A.13 COMPLIANCE WITH CLASS RULES

- A.13.1 A **boat** ceases to comply with the **class rules** upon:
- (a) Use of equipment that does not 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 measured, except where permitted by the **class rules**,
  - (d) A change of **class rules** that causes equipment in use to cease to be permitted, except where the equipment may comply with the **class rules** in force at the time of its initial **certification measurement**.

## A.14 RE-CERTIFICATION

- A.14.1 A **hull** may be issued with a new **certificate**, showing dates of initial and new **certification measurement** as applicable:
- (a) WHEN A CERTIFICATE BECOMES INVALID UPON CHANGE OF OWNERSHIP  
and the new owner applies 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 **certification measurement** form 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 CERTIFICATION MEASUREMENT FORM CANNOT BE LOCATED  
and **certification measurement** as required for initial **certification** has been undertaken.
- A.14.2 A **boat** that has ceased to comply with the **class rules** may be brought into compliance:
- (a) WHEN THE LIMITATIONS AFFECTING THE EQUIPMENT ARE IN THE CLASS RULES  
by carrying out **certification measurement** of affected equipment,
  - (b) WHEN THE LIMITATIONS AFFECTING THE EQUIPMENT ARE ON THE CERTIFICATE  
by carrying out **certification measurement** of affected equipment as required for initial **certification**.

## **Section B – Boat Eligibility**

To be eligible to take part in *racing*, the rules in this section shall be complied with.

### **B.1 CERTIFICATE**

B.1.1 The **hull** shall have a valid **certificate**.

B.1.2 A **certificate** issued prior to the effective date of these **class rules** remains valid until any of the criteria in A.12.1 is met.

### **B.2 CLASS ASSOCIATION STICKER**

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 II – REQUIREMENTS AND LIMITATIONS

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The **crew** and the **boat** shall comply with the rules in Part II when *racing*. Measurement to check conformity with rules of Section C is not part of **certification measurement**.

The rules in Part II are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

## Section C – Conditions for Racing

### C.1 GENERAL

#### C.1.1 RULES

The following ERS rules shall not apply:

- (a) B.1.2 **Mast Lower Limit Mark**
- (b) B.2 **Headsail Booms**.

### C.2 CREW

#### C.2.1 LIMITATIONS

The **crew** shall consist of one person.

### C.3 ADVERTISING

#### C.3.1 LIMITATIONS

The **boat** shall display only such advertising as permitted by the ISAF Advertising Code.

### C.4 BOAT

#### C.4.1 DIMENSIONS

With the **boat** floating in fresh water:

	minimum	maximum
Draught .....	370 mm	420 mm
The depth of <b>hull</b> from <b>waterline</b> .....		60 mm
<b>Hull length</b> .....		1000 mm

#### C.4.2 WEIGHT

	minimum	maximum
The weight of <b>boat</b> in dry condition excluding wind indicator if used .....		4000 g

#### C.4.3 CORRECTOR WEIGHT(S)

**Corrector weight(s)** to achieve compliance with C.4.2, if used, shall be fixed in/on the **hull** and not be altered or moved during an event.

#### C.4.4 WATER

Water shall not be used to trim the **boat** and it may be removed at any time.

## C.5 HULL

### C.5.1 IDENTIFICATION

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

### C.5.2 MAINTENANCE

Routine maintenance to the **hull** such as removing and adding fittings and remote control equipment, replacing **hull** patches, painting, polishing, smoothing etc., is permitted without re-measurement and re-**certification** provided the compliance with D.2 is not affected.

### C.5.3 REMOTE CONTROL EQUIPMENT

#### USE

- (a) The **rudder** control unit shall control the **rudder** only.
- (b) The **sheet** control unit shall control the **mainsail sheet** and **headsail sheet** only.
- (c) Crew may use only the following radio transmissions from the **boat**:
  - (1) control unit positioning,
  - (2) radio link information,
  - (3) monitoring of onboard battery(s) conditions.
- (d) During an event remote control and related equipment if temporarily removed and or replaced:
  - (1) shall be refitted in the same position.
  - (2) shall be replaced by equipment of similar weight.

## C.6 HULL APPENDAGES

### C.6.1 MAINTENANCE

The **hull appendages** may be altered after **certification measurement**, without undergoing new **certification measurement**, provided compliance with E.3 is not affected.

### C.6.2 LIMITATIONS

Except when a **hull appendage** has been lost or damaged beyond repair, only one **keel** and one **rudder** shall be used during an event. Replacement may be made only with the approval of the race committee. Unless the **hull appendage** has been lost, the race committee shall remove or cancel any **event limitation mark** attached to the **hull appendage** that has been replaced.

### C.6.3 USE

- (a) The **keel** shall not move or rotate relative to the **hull**, except by flexing.
- (b) The **hull appendages** shall not project outboard of the **hull**.
- (c) If removed:
  - (1) The **keel** shall be refitted in the same attitude and position in the **hull**.
  - (2) Parts of the **keel** shall be refitted in the same attitude and position relative to the **keel**.
  - (3) The **rudder** shall be refitted in the same attitude and position relative to the **hull**.

C.6.4 WEIGHTS

	minimum	maximum
<b>Keel</b> , excluding fasteners to <b>hull</b> .....	2200 g	2500 g
<b>Rudder</b> , including stock .....		75 g

C.7 RIG

C.7.1 LIMITATIONS

Except when an item has been lost or damaged beyond repair, one **mast**, one **mainsail boom** and one **headsail boom**, for each of the three **rigs**, may be used during an event. Replacement may be made only with the approval of the race committee. Unless the **spar** is lost, the race committee shall remove or cancel any **event limitation mark** attached to the **spar** that has been replaced.

C.7.2 USE

The **rig** shall not project beyond the fore and aft ends of the **hull**.

C.7.3 ADDED WEIGHTS

- (a) Weights of any material may be positioned in and/or on a **mast spar** below the **lower point**. Weights of density greater than 8000 kg/m<sup>3</sup> may be positioned in and/or on a **mast spar** above the **lower point**.
- (b) Such weights may be removed or added at any time subject to C.4.1 and C.4.2.

C.7.4 MAST

(a) DIMENSIONS

	minimum	maximum
<b>Lower point</b> to deck <b>limit mark</b> as defined in D.1.5 .....	60 mm	100 mm
Within these limits, the variation in height of <b>lower point</b> for each <b>rig</b> .....		± 5 mm
<b>Mast spar curvature</b> between <b>lower point</b> and <b>upper point</b> .....		unrestricted

(b) USE

The **spar** stepping position and wind indicator position are optional.

C.7.5 BOOMS

DIMENSIONS

	minimum	maximum
<b>Boom spar curvature</b> measured between points on the top of the <b>spar</b> 10 mm from each end .....		3 mm

C.7.6 STANDING RIGGING

USE

The **headsail boom** swivel shall be attached to the **hull** approximately on the **hull** centreplane. The alignment of the swivel between the **hull** and the **headsail boom** shall be controlled only by the **rigging** tension.

## C.7.7 RUNNING RIGGING

### USE

- (a) The **mainsail sheet** and the **headsail sheet** may be worked by a **sheet** control line attached to the **sheet** control unit.
- (b) The upper end of any **headsail boom** topping lift shall be attached to the **headsail halyard** and/or **stay**, or their **mast spar** fitting(s).
- (c) A **headsail boom** topping lift restraint line attached to, or passing around, the topping lift may be attached to and/or passed around any or all of the following: topping lift; **headsail**; **headsail halyard**; **headsail stay**; **headsail boom**.
- (d) A **mainsail tack** control line may be passed around or through the **mast spar**, the **mainsail boom spar** and/or their fittings.

## C.8 SAILS

### C.8.1 MAINTENANCE

Routine maintenance such as replacement of battens and patching over damaged areas is permitted without re-measurement and re-**certification**.

### C.8.2 LIMITATIONS

Except when a **sail** has been lost or damaged beyond repair, no more than one **mainsail** and one **headsail**, for each **rig**, shall be used during an event. Replacement may be made only with the approval of the race committee. Unless the **sail** is lost, the race committee shall remove or cancel any **event limitation mark** attached to the **sail** that has been replaced.

### C.8.3 IDENTIFICATION

Identification shall comply with the RRS. Sails certified before 1<sup>st</sup> January 2005 shall comply with the **sail** identification rules in force at that time or at the time of **certification measurement**.

### C.8.4 USE

#### (a) GENERAL

- (1) A **sail** of one **rig** shall not be used with another **rig**.
- (2) A **sail** may not be used alone, except where the other **sail** of that **rig** has been lost or damaged during the race.

#### (b) MAINSAIL

- (1) The **tack point** shall not be set more than 25 mm forward of the forward end of the **boom spar** and the **clew point** shall not be set more than 25 mm aft of the aft end of the **boom spar**.
- (2) Any **luff** bolt rope or **luff** slides shall be set in a **mast spar** track.
- (3) **Luff tabling** may envelop a **mast spar** jackstay.

#### (c) HEADSAIL

- (1) A line taken through the **tack point** and the **head point** shall cut the forward face of the **mast spar** lower than the lower edge of the **headsail stay limit mark** at the fore side of the **spar** when the **boom spar** is on the centreplane of the **hull**.

- (2) The **tack point** shall not be set more than 25 mm forward of the forward end of the **boom spar** and the **clew point** shall not be set more than 25 mm aft of the aft end of the **boom spar**.
- (3) **Luff tabling** may envelop the **headsail stay**.
- (4) Any **luff** slides shall be set on the **headsail stay**.

## 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 measurement** or comply with the current **class rules**.

#### D.1.2 CERTIFICATION

See rule A.11.

#### D.1.3 BUILDERS

- (a) No building licence is required for **hulls** built in accordance with D.2.1.
- (b) A building licence may be granted to commercial builders who wish to use mass production methods to lower the cost of **hulls**, but which do not comply with D.2.1. Such licence shall be based on a building specification approved by the ICA and the IRSA and a contract between the IRSA and the builder.

#### D.1.4 IDENTIFICATION

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

#### D.1.5 DECK LIMIT MARK

The deck **limit mark** shall be displayed on the centreplane of the **hull** near to the **mast** position. It shall be a minimum of 5 mm in diameter.

### D.2 HULL

#### D.2.1 MATERIALS

- (a) Subject to (b) and (c), the **hull**, excluding fittings and remote control equipment but including any supports and containers for such items, shall be made of and joined using one or more of the following materials:
  - (1) Metal,
  - (2) Wood; wood based products containing only permitted materials,
  - (3) Resin, which may be coloured and/or reinforced with glass fibres,
  - (4) Adhesive,
  - (5) Varnish; paint,
  - (6) Film covering materials which may be fibre reinforced,
  - (7) Elastomeric material,
  - (8) Thermoplastic, which may be moulded, containing only permitted materials.

- (b) With the exception of elastomeric materials, materials shall not be: expanded, foamed, honeycombed.
- (c) Unrestricted by (a) and (b):
  - (1) A builder's mark may be applied,
  - (2) The **hull** registration number shall be applied.
  - (3) A **hull** made with Texalium and with a date of initial **fundamental measurement**, prior to 1 September 2004 may be **certified**.

#### D.2.2 CONSTRUCTION

Construction is unrestricted subject to the following:

- (a) The **hull** shall be a **monohull**.
- (b) Except for trunking for the **keel** and **rudder**, the **hull** shall not have:
  - (1) Voids in the **waterplane** and/or the underwater profile,
  - (2) Hollows in the plan view and/or the underwater profile that exceed 3 mm,
  - (3) Transverse hollows in the undersurface of the **hull** that exceed 3 mm when tested parallel to the **waterplane** as in figure H.2.
- (c) The forward 10 mm of the **hull** shall be of elastomeric material.
- (d) The **rudder** shall be attached to the **hull** aft of where the **keel** is attached.

#### D.2.3 FITTINGS

Fittings are unrestricted except that:

- (a) Fittings that can contribute to the stiffness and/or strength and/or watertight integrity of the **hull** shall be of materials permitted by D.2.1.
- (b) Ball and/or roller bearings may only be used for: **sheet** control line blocks, **mainsail boom sheet** blocks and **headsail boom sheet** blocks.
- (c) Fittings shall not project outboard of the **hull** shell or deck.

#### D.2.4 REMOTE CONTROL EQUIPMENT

- (a) The following is permitted:
  - (1) One or more receivers.
  - (2) One **rudder** control unit.
  - (3) One **sheet** control unit.
  - (4) Battery cells assembled in one or more packs.
  - (5) Electric cables, connectors and switches.
  - (6) One device to indicate the battery voltage. In addition, items listed under (1) to (5) may have their own built-in battery voltage indication.
  - (7) A device to control downstream voltage delivered to permitted radio control equipment as defined by items listed under (1) to (6) of this rule.
- (b) The **rudder** control unit and the **sheet** control unit may contain ball and/or roller bearings.
- (c) Remote control equipment may be fastened using hook and loop fasteners and/or the materials listed in D.2.1(a).

## Section E – Hull Appendages

### E.1 PARTS

#### E.1.1 MANDATORY

- (a) **Keel**, which may comprise a **fin** and a **bulb**.
- (b) **Rudder**

### E.2 GENERAL

#### E.2.1 RULES

**Hull appendages** shall comply with the current **class rules**.

#### E.2.2 BUILDERS

No licence is required.

### E.3 KEEL AND RUDDER

#### E.3.1 MATERIALS

Materials shall not be of density higher than lead ( $11300 \text{ kg/m}^3$ ).

#### E.3.2 CONSTRUCTION

Construction is unrestricted subject to the following:

- (a) The **keel** and **rudder** shall be removable from the **hull**.
- (b) The **keel** and **rudder** shall not
  - (1) be connected,
  - (2) be articulated,
  - (3) have openings through which water could flow when in use.

### E.4 KEEL

#### E.4.1 DIMENSIONS

	minimum	maximum
The largest transverse dimension except for the lowest 60 mm .....		20 mm

## Section F – Rig

### F.1 PARTS

#### F.1.1 MANDATORY

- (a) **Mast**.
- (b) **Mainsail boom**.
- (c) **Headsail boom**.
- (d) **Standing rigging**.
- (e) **Running rigging**.
- (f) **Fittings**.

## **F.2 GENERAL**

### **F.2.1 RULES**

**Rigs** shall comply with the current **class rules**.

### **F.2.2 MANUFACTURERS**

No licence is required.

### **F.2.3 LIMITATIONS**

The function of items shall be limited to what is normally provided by items of their type.

### **F.2.4 CONSTRUCTION**

- (a) Fittings and/or control lines may be combined provided their function is not extended beyond what is permitted.
- (b) The position of parts, and the length and tension of **rigging**, may be adjustable unless otherwise restricted.
- (c) Ball and/or roller bearings may be used for: kicking strap fitting; gooseneck; **mainsail boom sheet** blocks; **headsail boom sheet** blocks; **headsail boom** swivel.

## **F.3 MAST**

### **F.3.1 MATERIALS**

- (a) The **spar** shall be aluminium alloy of 2024, 5754, 6005, 6060, 6061, 6063, 6082 or 7075 grade, or wood.
- (b) Other permitted materials in the **spar** are: adhesive; paint; powder coat; varnish; wax. An aluminium alloy **spar** may be anodised.

### **F.3.2 CONSTRUCTION**

- (a) A **mast** stub arrangement is permitted and, if used, shall be taken to be part of the **mast**.
- (b) Between the **lower point** and the **upper point** the **spar** section shall be:
  - (1) of circular outer shape,
  - (2) constantwithin the variations permitted by F.3.4 except for the following permitted items:
  - an internal **sail** track,
  - local cutaways for the insertion of a bolt rope or slides, openings for fittings and/or **rigging**, internal and/or external **spar** joiners.
- (c) **Limit marks** may be applied by the following means:
  - (1) paint,
  - (2) self adhesive tape,
  - (3) fittings.

### **F.3.3 FITTINGS**

- (a) **MANDATORY**
  - (1) **Mainsail halyard(s)** fitting(s) or opening(s).
  - (2) **Shroud** fitting(s) and/or opening(s).
  - (3) Gooseneck.
  - (4) Kicking strap fitting.



(b) OPTIONAL

- (1) Wind indicator and/or its fitting.
- (2) **Backstay** crane and its fitting.
- (3) **Headsail stay** fitting and/or opening.
- (4) **Headsail halyard** fitting and/or opening.
- (5) Pair of **spreaders** and their fittings(s) and/or opening(s).
- (6) **Mast spar** rings and/or loops to attach **mainsail luff** to the **spar**.
- (7) **Mainsail** jackstay fittings.
- (8) **Mainsail tack** fitting(s).
- (9) **Mast** strut and its fitting.
- (10) **Checkstay** fittings(s).
- (11) Deck fitting.
- (12) Heel fitting with or without **mast** jack.
- (13) Added weights.

(c) CONSTRUCTION

- (1) A **mainsail halyard** fitting may include one part that rotates with the **sail** about an axis located inside or outside the **spar** section.
- (2) The **mainsail boom spar** and the kicking strap pivot points shall be aft of the **mast spar** in the regions adjacent to these points.

F.3.4 DIMENSIONS

	minimum	maximum	
<b>Lower point to upper point</b>			
<b>mast 1</b> .....		1600 mm	
<b>mast 2</b> .....		1180 mm	
<b>mast 3</b> .....		880 mm	
Lower edge of <b>headsail stay limit mark</b> at fore side of <b>spar</b> to <b>upper point</b>			
<b>mast 1</b> .....	220 mm		
<b>mast 2</b> .....	160 mm		
<b>mast 3</b> .....	120 mm		
Height of <b>checkstay rigging point</b> above <b>heel point</b> .....		100 mm	
<b>Spar</b> between <b>lower point</b> and <b>upper point</b> ignoring features permitted by F.3.2(b):			
diameter .....	10.6 mm		
difference between largest and smallest diameter .....		0.3 mm	
for an aluminium <b>spar</b> , the difference between largest and smallest value along the <b>spar</b> of any wall thickness dimension .....			0.1 mm
Length of <b>spar</b> joiners .....		100 mm	
Total length of local cutaways between <b>lower point</b> and <b>upper point</b> .....		100 mm	
<b>Limit mark width</b> .....	3 mm	10 mm	

## F.4 BOOMS

### F.4.1 MATERIALS

- (a) **Spars** shall be aluminium alloy of 2024, 5754, 6005, 6060, 6061, 6063, 6082, 7075, 7068 or 7178 grade, or wood.
- (b) Other permitted materials in the **spar** are: adhesive, varnish, paint, wax, powder coat. An aluminium alloy **spar** may be anodised.

### F.4.2 CONSTRUCTION

The **spar** section shall be constant within the variations permitted by F.4.5 except for

- (a) the last 10 mm at each end,
- (b) openings for fittings and **rigging**.

### F.4.3 MAINSAIL BOOM FITTINGS

#### (a) MANDATORY

- (1) **Mainsail clew** fitting(s).
- (2) **Mainsail boom sheet** fitting(s).
- (3) Kicking strap fitting.

#### (b) OPTIONAL

- (1) **Mainsail tack** fitting(s).
- (2) Gooseneck fitting.
- (3) Opening(s) for **mainsail boom sheet** fitting.

### F.4.4 HEADSAIL BOOM FITTINGS

#### (a) MANDATORY

- (1) **Headsail tack** and **clew** fittings.
- (2) **Headsail boom sheet** fitting(s).
- (3) Swivel and/or its fitting(s).

#### (b) OPTIONAL

- (1) **Headsail stay** fitting(s) or opening.
- (2) Topping lift fitting(s) or opening.
- (3) Counterweight and its attachment.
- (4) Opening(s) for **headsail boom sheet** fitting.

### F.4.5 DIMENSIONS

minimum      maximum

**Spar**, ignoring features permitted by F.4.2, between points 10 mm from each end:

the **boom spar** shall pass through a 20 mm, ring gauge

difference between the smallest and largest value along the **spar** of any external dimension..... 0.5 mm

for an aluminium **spar**, the difference between the largest and smallest value along the **spar** of any wall thickness dimension ..... 0.1 mm

## **F.5 STANDING RIGGING**

### **F.5.1 MATERIALS**

Except for terminations and the **headsail boom** swivel, the **standing rigging** shall be of steel and/or polymer.

### **F.5.2 CONSTRUCTION**

#### **(a) MANDATORY**

- (1) Pair of **shrouds**.
- (2) **Backstay**.
- (3) **Headsail boom** swivel.

#### **(b) OPTIONAL**

- (1) Pair of **checkstays** if a **mast** strut is not fitted.
- (2) A **headsail stay** less than 1 mm in diameter.
- (3) A **mast spar** jackstay less than 1 mm in diameter.

### **F.5.3 FITTINGS**

#### **OPTIONAL**

- (a) Terminations.
- (b) Length and tension adjustments.

## **F.6 RUNNING RIGGING**

### **F.6.1 MATERIALS**

Materials of **running rigging** are unrestricted.

### **F.6.2 CONSTRUCTION**

#### **(a) MANDATORY**

- (1) **Mainsail boom sheet**.
- (2) **Mainsail boom** kicking strap.
- (3) **Headsail halyard**, if **headsail stay** is not fitted.
- (4) **Headsail boom sheet**.

#### **(b) OPTIONAL**

- (1) **Mainsail halyard(s)**.
- (2) **Mainsail clew** trim line.
- (3) **Mainsail tack** trim line
- (4) **Headsail halyard(s)**.
- (5) **Headsail clew** trim line.
- (6) **Headsail tack** trim line.
- (7) **Headsail boom** topping lift.
- (8) **Headsail boom** topping lift restraint line.

### F.6.3 FITTINGS

#### OPTIONAL

- (a) Terminations.
- (b) Length and tension adjustments.
- (c) **Mainsail boom sheet** blocks, **headsail boom sheet** blocks.

## Section G – Sails

### G.1 PARTS

#### G.1.1 MANDATORY

- (a) **Mainsail**.
- (b) **Headsail**.

### G.2 GENERAL

#### G.2.1 RULES

**Sails** shall comply with the **class rules** in force at the time of their initial **certification measurement**.

#### G.2.2 CERTIFICATION

- (a) The **official measurer** shall **certify sails** in the **tack** and shall date each with the date of **certification measurement**.
- (b) An MNA may appoint one or more persons at a sailmaker to measure and **certify sails** produced by that manufacturer. A special licence shall be awarded for that purpose.

#### G.2.3 SAILMAKERS

No licence is required.

#### G.2.4 DEFINITIONS

##### Batten Point

The batten point is defined as the intersection of the **leech** and

- (a) the extended centreline of the batten or
- (b) a line of minimum length 20 mm marked on the **leech** if there is no batten.

#### G.2.5 MEASUREMENT

- (a) During measurement:
  - (1) battens need not be removed,
  - (2) **mainsails** with the **luff** not set in a **mast spar** track may be attached to **spars**,
  - (3) a **headsail stay** and **mainsail mast spar** jackstay need not be removed.
- (b) Where a **mainsail** has a **luff** bolt rope the **luff** shall be taken as the aft edge of the bolt rope.
- (c) **Luff** slides shall be ignored when measuring **sail** dimensions provided that their total length, measured along the **luff**, does not exceed 10% of the **luff length**.

## G.3 MAINSAIL

### G.3.1 CONSTRUCTION

#### (a) MANDATORY

- (1) The construction shall be: **soft sail, single ply sail.**
- (2) The **body of the sail** shall consist of the same **ply** throughout and of not more than four parts joined by **seams**.
- (3) **Seams** shall not deviate more than 10 mm from a straight line between **luff** and **leech**.
- (4) The **sail** shall have three battens at the leech or lines marked on the **leech** as defined in G.2.4(b) if there are no battens.
- (5) Except within the leech stiffening zones, see H.3, the **leech** shall not extend aft of straight lines between :
  - (i) the **aft head point** and the nearest batten point,
  - (ii) adjacent batten points,
  - (iii) the **clew point** and the nearest batten point.where the batten points are to be taken as defined in G.2.4.
- (6) The **foot** shall not extend below a straight line between **tack point** and **clew point**.
- (7) Class insignia.

#### (b) OPTIONAL

- (1) **Tabling**, which at the **luff** may form a pocket for a mast **spar** jackstay.
- (2) One or two cringles and/or openings at the **head**.
- (3) One cringle and/or openings at each of the **clew** and **tack**.
- (4) **Luff** openings for mast **spar** rings and/or loops for mast **spar** jackstay fittings.
- (5) **Luff** bolt rope.
- (6) **Luff** track slides.
- (7) **Luff** fittings for **mast spar** rings and/or loops.
- (8) **Luff** fittings for **mast spar** jackstay.
- (9) **Primary reinforcement** specified at G.3.3.
- (10) **Secondary reinforcement** specified at G.3.3.
- (11) **Primary reinforcement** and/or **stiffening** within the leech stiffening zones defined by templates shown in H.3.
- (12) Tell tales.
- (13) Not more than three **sail** shape indicator stripes, applied using paint or ink.
- (14) Sailmaker labels.

### G.3.2 CONSTRUCTION TECHNIQUES

- (a) Only the following construction techniques shall be used where parts are joined or added as permitted in G.3.1 and G.3.3: welding; gluing; bonding with self adhesive tapes/materials; stitching.
- (b) Except for stitching, the joining techniques used at **seams** shall not extend beyond the edges of the **seam**.

G.3.3 DIMENSIONS

	minimum	maximum
<b>Leech length:</b>		
<b>mainsail 1</b> .....	1610 mm	1620 mm
<b>mainsail 2</b> .....	1200 mm	1210 mm
<b>mainsail 3</b> .....	910 mm	920 mm
<b>Foot length:</b>		
<b>mainsail 1</b> .....	350 mm	360 mm
<b>mainsail 2</b> .....	340 mm	350 mm
<b>mainsail 3</b> .....	310 mm	320 mm
<b>Quarter width:</b>		
<b>mainsail 1</b> .....	305 mm	315 mm
<b>mainsail 2</b> .....	295 mm	305 mm
<b>mainsail 3</b> .....	265 mm	275 mm
<b>Half width:</b>		
<b>mainsail 1</b> .....	235 mm	245 mm
<b>mainsail 2</b> .....	225 mm	235 mm
<b>mainsail 3</b> .....	205 mm	215 mm
<b>Three-quarter width:</b>		
<b>mainsail 1</b> .....	135 mm	145 mm
<b>mainsail 2</b> .....	130 mm	140 mm
<b>mainsail 3</b> .....	115 mm	125 mm
<b>Top width</b> .....		20 mm
<b>Primary reinforcement:</b>		
from nearest <b>sail corner measurement point</b> .....		125 mm
<b>Secondary reinforcement:</b>		
from nearest <b>sail corner measurement point</b> .....		125 mm
for <b>flutter patches</b> .....		50 mm
at <b>luff fittings, luff slides and/or luff openings</b> .....		20 mm
<b>Tabling width</b> .....		15 mm
<b>Seam width</b> .....		15 mm
<b>Seam to nearest sail corner measurement point</b> .....	150 mm	
<b>Batten length:</b>		
middle and lower .....		100 mm
upper .....		75 mm
<b>Batten width</b> .....		10 mm
<b>Batten point, as defined in G.2.4, to nearest leech point</b> .....		20 mm
<b>Largest cringle dimension</b> .....		10 mm
With the exception for <b>luff slides, largest luff fitting</b>		
<b>dimension</b> .....		10 mm
<b>Sail shape indicator stripe width</b> .....		30 mm

## G.4 HEADSAIL

### G.4.1 CONSTRUCTION

#### (a) MANDATORY

- (1) The construction shall be: **soft sail, single ply sail.**
- (2) The **body of the sail** shall consist of the same **ply** throughout and of not more than three parts joined by **seams**.
- (3) **Seams** shall not deviate more than 10 mm from a straight line between **luff** and **leech**.
- (4) Except within the leech stiffening zones, see H.3, the **leech** shall not extend aft of a straight line between the **aft head point** and the **clew point**.
- (5) The **foot** shall not extend below a straight line between **tack point** and **clew point**.

#### (b) OPTIONAL

- (1) **Tabling**, which at the **luff** may form a pocket for a **headsail stay**.
- (2) One or two cringles and/or openings at the **head**.
- (3) One cringle and/or openings at each of the **clew** and **tack**.
- (4) **Headsail stay** slides and/or loops.
- (5) **Primary reinforcement** specified at G.4.3.
- (6) **Secondary reinforcement** specified at G.4.3.
- (7) Not more than two battens at the leech.
- (8) **Primary reinforcement** and/or **stiffening** within the leech stiffening zones defined by templates as shown in H.3.
- (9) Tell tales.
- (10) Not more than two **sail** shape indicator stripes, applied using paint or ink.
- (11) Sailmaker labels.

### G.4.2 CONSTRUCTION TECHNIQUES

- (a) Only the following construction techniques shall be used where parts are joined or added as permitted in G.4.1 and G.4.3: welding; gluing; bonding with self adhesive tapes/materials; stitching.
- (b) Except for stitching, the joining techniques used at **seams** shall not extend beyond the edges of the **seam**.

G.4.3 DIMENSIONS

	minimum	maximum
<b>Luff length:</b>		
headsail 1 .....	1320 mm	1330 mm
headsail 2 .....	980 mm	990 mm
headsail 3 .....	730 mm	740 mm
<b>Leech length:</b>		
headsail 1 .....	1245 mm	1255 mm
headsail 2 .....	900 mm	910 mm
headsail 3 .....	655 mm	665 mm
<b>Foot length:</b>		
headsail 1 .....	375 mm	385 mm
headsail 2 .....	340 mm	350 mm
headsail 3 .....	290 mm	300 mm
<b>Half width:</b>		
headsail 1 .....	185 mm	195 mm
headsail 2 .....	165 mm	175 mm
headsail 3 .....	140 mm	150 mm
<b>Top width</b> .....		20 mm
<b>Primary reinforcement:</b>		
from nearest <b>sail corner measurement point</b> .....		125 mm
<b>Secondary reinforcement</b>		
from nearest <b>sail corner measurement point</b> .....		125 mm
for <b>flutter patches</b> .....		50 mm
at <b>headsail stay</b> slides and/or loops .....		20 mm
<b>Tabling width</b> .....		15 mm
<b>Seam width</b> .....		15 mm
<b>Seam</b> to nearest <b>sail corner measurement point</b> .....	100 mm	
Batten length .....		75 mm
Batten width .....		10 mm
<b>Clew point</b> to lower batten point as defined in G.2.4:		
headsail 1 .....	400 mm	430 mm
headsail 2 .....	285 mm	315 mm
headsail 3 .....	205 mm	235 mm
<b>Clew point</b> to upper batten point as defined in G.2.4:		
headsail 1 .....	820 mm	850 mm
headsail 2 .....	590 mm	620 mm
headsail 3 .....	425 mm	455 mm
Largest cringle dimension .....		10 mm
<b>Sail</b> shape indicator stripe width .....		30 mm

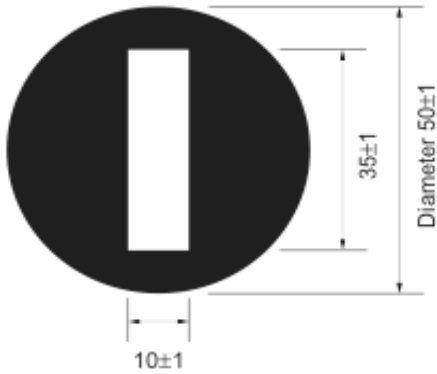


# PART III – APPENDICES

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## Section H – Illustrations

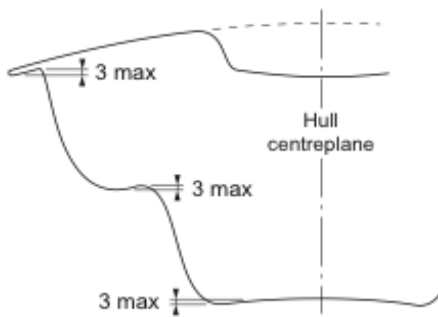
### H.1 CLASS INSIGNIA



### H.2 TRANSVERSE HULL HOLLOWES

Rule D.2.2(b)(3)

The **hull** shall not have transverse hollows in the undersurface of the **hull** that exceed 3 mm when tested parallel to the **waterplane**.

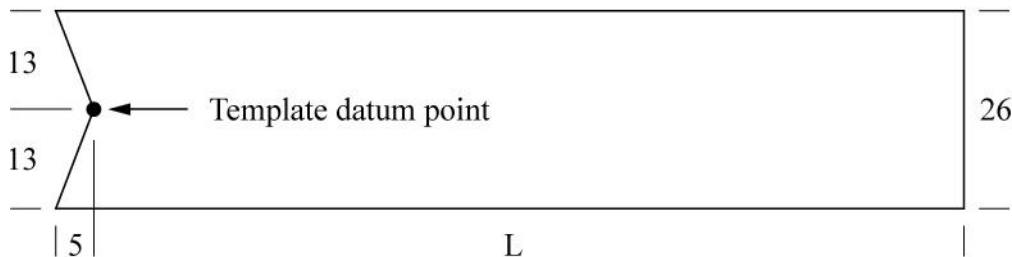


### H.3 LEECH STIFFENING ZONE

#### H.3.1 DEFINITION

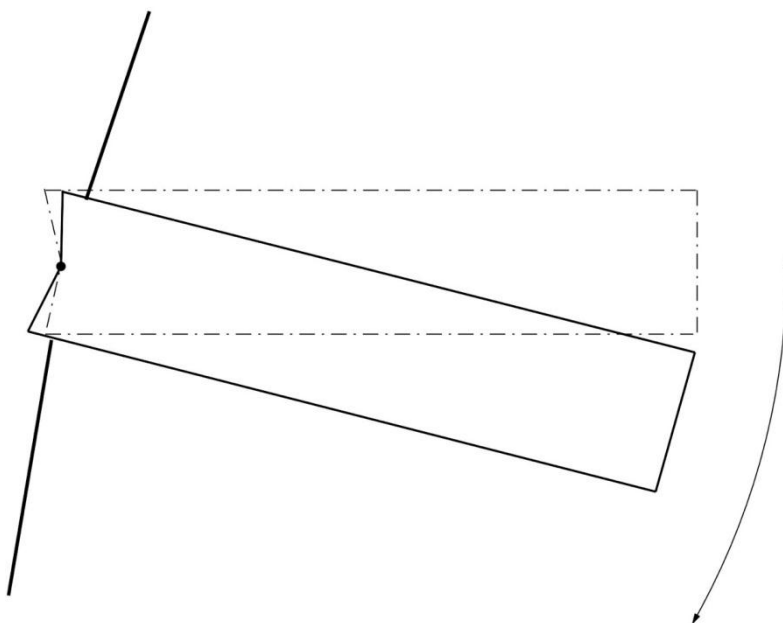
A leech stiffening zone is a part of a **sail** that may be covered by a leech stiffening zone template as described in H.3.2 and positioned as described in H.3.3.

#### H.3.2 TEMPLATE AND TEMPLATE DATUM POINT



Leech stiffening zone template	Length, L
<b>Mainsail</b> middle and lower.....	120
<b>Mainsail</b> upper and <b>headsail</b> template.....	95

#### H.3.3 TEMPLATE POSITIONING



It shall be possible to position the template so that

- (1) its datum point is over the relevant batten point,
- (2) its long edges cut the **leech** and
- (3) it covers any **primary reinforcement** and/or **stiffening**.

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