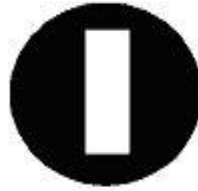
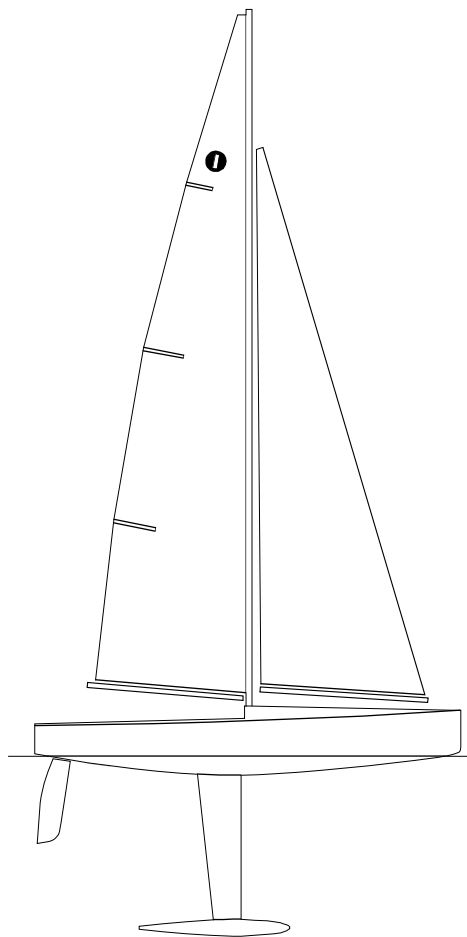




INTERNATIONAL ONE METRE



CLASS RULES 2017



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

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Introduction

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

Certification and alterations

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

IOM 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**.

Responsibility

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 the technical committee for an event decides that a **boat** does not comply with the **class rules** it shall protest the **boat** (RRS 60.4).

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.

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

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.

The **class rules** for the International One Metre Class are **closed class rules** in which anything not specifically permitted by the **class rules** is prohibited. Individual rules may require, limit, or permit 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 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 | IRSA Member |
| IOM ICA | International One Metre 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 **certification**, rests with:
WS
the IRSA
the MNA
the DNM
the IOM 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 IOM ICA.

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 administer the class, its administrative functions as stated in these **class rules** shall be carried out by the IOM 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 IOM ICA.

A.6 CLASS RULES AMENDMENTS

- A.6.1 Amendments to these **class rules** shall be proposed by the IOM ICA and are required to be approved by the IRSA.

A.7 CLASS RULES INTERPRETATIONS

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 IOM ICA.

A.8 HULL REGISTRATION NUMBER

- 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 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 control**.
- A.9.3 Upon receipt of a satisfactorily completed 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 initial **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 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.

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 valid **certificate**.

(c) have valid **certification marks** as required.

B.2 CLASS ASSOCIATION STICKER

B.2.1 A valid class association sticker, if required by the NCA or the IOMICA, shall be affixed to the **hull** in a conspicuous position.

PART II – REQUIREMENTS AND LIMITATIONS

The competitor 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 control**.

The rules in Part II are **closed class rules**. **Certification** 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) H.5.4 **Extended as necessary**.

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** shall display only such advertising as permitted by the WS Advertising Code.

C.4 BOAT

C.4.1 DIMENSIONS

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

	minimum	maximum
Draft	370 mm	420 mm
Hull depth		60 mm
Hull length		1000 mm

C.4.2 WEIGHT

	minimum	maximum
The weight of boat 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 LIMITATIONS

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

C.5.2 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.5.3 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 undergoing new **certification control** provided the compliance with D.2 is not affected.

C.5.4 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) Except where achieved by mechanical systems, automated control of **rig** and/or **sails** and automated steering and/or navigation are prohibited.
- (d) On board camera(s) and/or the use of pictures from any source while *racing* is prohibited.
- (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* is prohibited.
- (f) During an event remote control and related equipment if temporarily removed and or replaced shall be:
 - (1) refitted in the same position.
 - (2) replaced by equipment of similar weight.

C.6 HULL APPENDAGES

C.6.1 MAINTENANCE

The **hull appendages** may be altered after **certification control**, without undergoing new **certification control**, 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
Keel , excluding fasteners to hull	2200 g	2500 g
Rudder , 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 CORRECTOR WEIGHTS

- (a) **Corrector weights** of any material may be positioned in and/or on a **mast spar** below the **lower point**. **Corrector weights** of density greater than 8000 kg/m^3 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
Lower point to deck limit mark as defined in D.1.5	60 mm	100 mm
Within these limits, the variation in height of lower point for each rig		± 5 mm

(b) USE

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

C.7.5 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.7.6 RUNNING RIGGING

USE

- The **mainsail sheet** and the **headsail sheet** may be worked by a **sheet** control line attached to the **sheet** control unit.
- 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).
- A **headsail boom** topping lift restraint line(s) 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**.
- A **mainsail tack** control line may be passed around or through the **mast spar**, the **mainsail boom spar**.

C.8 SAILS

C.8.1 MAINTENANCE

Routine maintenance such as replacement of battens and patching over damaged areas is permitted without undergoing new **certification control**.

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 USE

(a) GENERAL

- A **sail** of one **rig** shall not be used with another **rig**.
- 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** (excluding its fittings) and the **clew point** shall not be set more than 25 mm aft of the aft end of the **boom spar** (excluding its fittings).
- (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** (excluding its fittings) lower than the lower edge of the **headsail stay limit mark** at the fore side of the **spar** when the **boom** 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 control** or comply with the current **class rules**.

D.1.2 CERTIFICATION

See rule A.9.

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 reinforced by means of polyester fibres,
 - (7) Elastomer,
 - (8) Thermoplastic, which may be moulded, containing only permitted materials.
- (b) With the exception of elastomer, 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.

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 that exceed 3 mm,
 - (3) Hollows in the underwater profile that exceed 3 mm,
 - (4) 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 made of elastomer.
- (d) The **rudder** shall be attached to the **hull** aft of where the **keel** is attached.

D.2.3 CONSTRUCTION TECHNIQUES

Construction techniques for forming a **hull** are unrestricted subject to compliance with D.2.1.

D.2.4 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.2.5 REMOTE CONTROL EQUIPMENT

- (a) The following are 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 (11340 kg/m³).

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.3.3 CONSTRUCTION TECHNIQUES

Construction techniques for forming **hull appendages** are unrestricted.

E.4 KEEL

E.4.1 DIMENSIONS

The largest transverse dimension except for the
lowest 60 mm 20 mm

minimum maximum

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.
- (d) Where the mast kicking strap fitting and/or gooseneck:
 - (1) are exposed,
 - (2) are not of circular cross section, and
 - (3) rotate,

they shall not exceed 20 mm in any cross section perpendicular to the axis of rotation.

F.2.5 CONSTRUCTION TECHNIQUES

Construction techniques for forming **rigs** are unrestricted.

F.3 MAST

F.3.1 MATERIALS

- (a) The **spar** (excluding its fittings and any **corrector weights**) shall be aluminium alloy of 2024, 5754, 6005, 6060, 6061, 6063, 6082 or 7075 grade, including all subgrades denoted by suffix letter and all temper variants, or wood.
- (b) Other permitted materials in the main structural part of the **spar** are: adhesive; paint; powder coat; varnish; wax. An aluminium alloy **spar** may be anodised.
- (c) Material of fittings is unrestricted.

F.3.2 CONSTRUCTION

- (a) A **mast** stub arrangement is permitted and, if used, its main structural part shall be taken to be part of the main structural part **mast spar**.
- (b) Between the **lower point** and the **upper point** the **spar** (excluding its fittings and any **corrector weights**) 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) **Mast spar curvature** is unrestricted.
- (d) **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) **Mast spar** 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) **Corrector 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** (excluding its fittings and any **corrector weight**) and the kicking strap pivot points shall be aft of the **mast spar** (excluding its fittings and any **corrector weight**) in the regions adjacent to these points.
- (3) Permitted fittings shall be attached to the **mast spar**.

F.3.4 DIMENSIONS

	minimum	maximum
Lower point to upper point		
mast 1		1600 mm
mast 2		1180 mm
mast 3		880 mm
 Lower edge of headsail stay limit mark at fore side of spar to upper point		
mast 1	220 mm	
mast 2	160 mm	
mast 3	120 mm	
 Height of checkstay rigging point above heel point		
	100 mm	
 Spar (excluding its fittings and any corrector weights)		
- between lower point and upper point ignoring features permitted by F.3.2(b):		
- diameter	10.6 mm	
- difference between largest and smallest diameter	0.3 mm	
- for an aluminium spar (excluding its fittings and any corrector weights) , the difference between largest and smallest value along the spar of any wall thickness dimension		
	0.1 mm	

	minimum	maximum
Length of spar (excluding its fittings and any corrector weights) joiners		100 mm
Total length of local cutaways between lower point and upper point		100 mm
Limit mark width	3 mm	10 mm

F.4 BOOMS

F.4.1 MATERIALS

- (a) **Spars** (excluding their fittings) shall be aluminium alloy of 2024, 5754, 6005, 6060, 6061, 6063, 6082, 7075, 7068 or 7178 grade, including all subgrades denoted by suffix letter and all temper variants, or wood.
- (b) Other permitted materials in the structural part of the **spar** are: adhesive, varnish, paint, wax, powder coat. An aluminium alloy **spar** may be anodised.
- (c) Material of fittings is unrestricted.

F.4.2 CONSTRUCTION

The **spar** (excluding its fittings) 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 (excluding its fittings), ignoring features permitted by F.4.2, between points 10 mm from each end:

- the **boom spar** (excluding its fittings) shall be capable of passing through a 20 mm ring gauge
- difference between the smallest and largest value along the **spar** (excluding its fittings) of any external dimension 0.5 mm
- for an aluminium **spar** (excluding its fittings), the difference between the largest and smallest value along the **spar**(excluding its fittings) of any wall thickness dimension 0.1 mm

Boom spar curvature measured between points on the top of the **spar** (excluding its fittings) 10 mm from each end 3 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 PARTS

(a) MANDATORY

- (1) Pair of **shrouds**.
- (2) **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 PARTS

(a) MANDATORY

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

(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(s).
- (9) A **sheet** control line.

F.6.3 FITTINGS

OPTIONAL

- (a) Terminations.
- (b) Length and tension adjustments.
- (c) **Mainsail boom sheet** blocks, **headsail boom sheet** blocks.
- (d) A wind indicator attached to the **backstay**.

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 control**.

G.2.2 CERTIFICATION

- (a) Except where **sails** are **certified** as in (b) the **official measurer** shall **certify sails** in the **tack** and shall date each with the date of **certification control**.
- (b) An MNA may appoint one or more persons at a sailmaker to **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 CERTIFICATION CONTROL

(a) During **certification control**:

- (1) battens need not be removed,
 - (2) **mainsail** with the **luff** not set in a **mast spar** track may be attached to **spars**,
 - (3) a **headsail stay** and **mast spar** jackstay need not be removed.
 - (4) tell tales shall be ignored.
- (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 15% 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.
- (3) 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.
- (4) 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.
- (5) The **foot** shall not extend below a straight line between **tack point** and **clew point**.
- (6) 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 the template as 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) Following construction techniques may be used:

- (1) Panelled **sails** with two, three or four parts joined by **seams** which shall not deviate more than 10 mm from straight line between **luff** and **leech**. Except for stitching, **seam width** shall include the joining techniques used at **seams**.
- (2) One panel **sails** with or without three dimensional shape added by heat and/or force.

(b) The following are allowed where parts are joined or added as permitted in G.3.1 and G.3.2: welding; gluing; bonding with self-adhesive tapes/materials, stitching.

G.3.3 DIMENSIONS

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

- (1) Panelled **sails** with two or three parts joined by **seams** which shall not deviate more than 10 mm from straight line between **luff** and **leech**. Except for stitching, **seam width** shall include the joining techniques used at **seams**.
- (2) One-panelled **sails** with or without three dimensional shape added by heat and/or force.

(b) The following are allowed where parts are joined or added as permitted in G.4.1 and G.4.2: welding; gluing; bonding with self-adhesive tapes/materials, stitching.

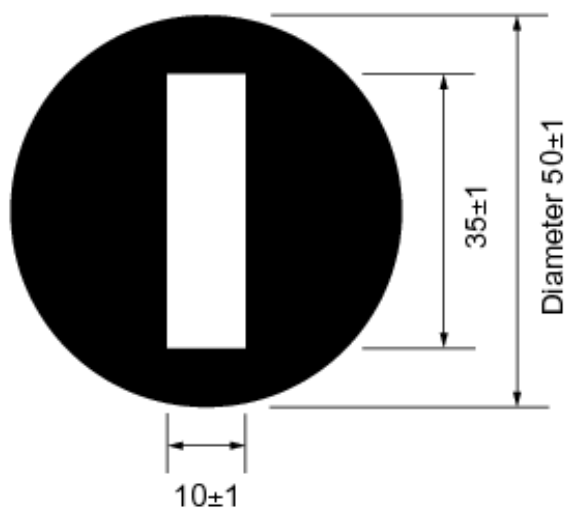
G.4.3 DIMENSIONS

	minimum	maximum
Luff length:		
headsail 1	1320 mm	1330 mm
headsail 2	980 mm	990 mm
headsail 3	730 mm	740 mm
Leech length:		
headsail 1	1245 mm	1255 mm
headsail 2	900 mm	910 mm
headsail 3	655 mm	665 mm
Foot length:		
headsail 1	375 mm	385 mm
headsail 2	340 mm	350 mm
headsail 3	290 mm	300 mm
Half width:		
headsail 1	185 mm	195 mm
headsail 2	165 mm	175 mm
headsail 3	140 mm	150 mm
Top width		20 mm
Primary reinforcement:		
from nearest sail corner measurement point		125 mm
Secondary reinforcement		
from nearest sail corner measurement point		125 mm
for flutter patches		50 mm
at headsail stay slides and/or loops		20 mm
Tabling width		15 mm
Seam width		15 mm
Seam to nearest sail corner measurement point	100 mm	
Batten length		75 mm
Batten width		10 mm
Clew point 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
Clew point 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
Sail shape indicator stripe width		30 mm

PART III – APPENDICES

Section H – Illustrations

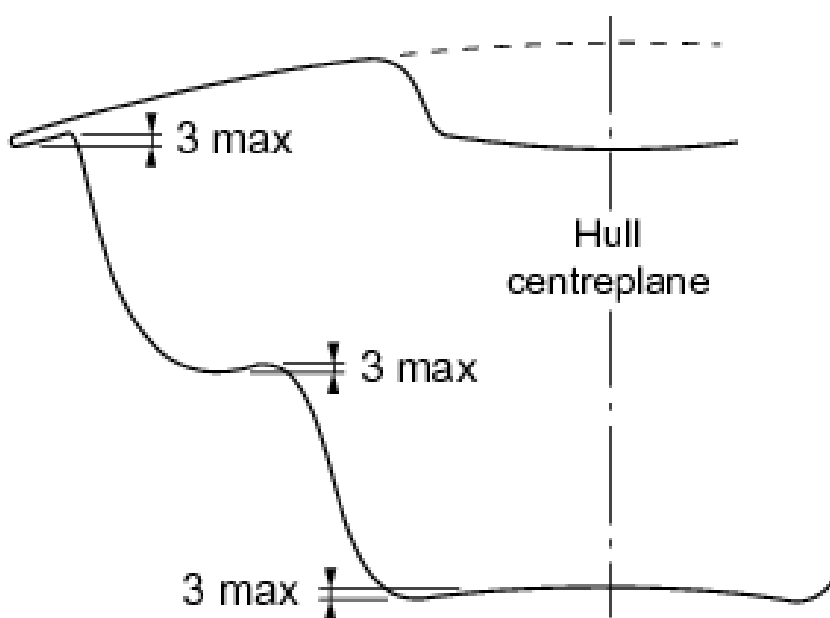
H.1 CLASS INSIGNIA



H.2 TRANSVERSE HULL HOLLOW

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**.

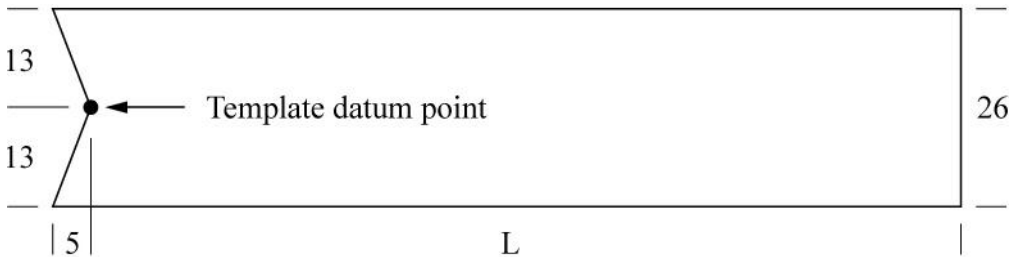


H.3 LEECH STIFFENING ZONE

H.3.1 DEFINITION

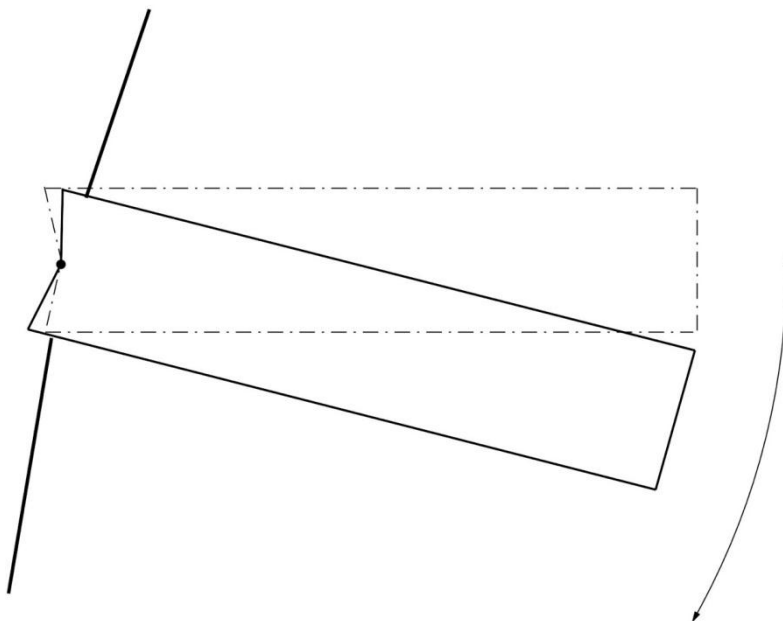
A leech stiffening zone is a region of a **sail** defined by a leech stiffening zone template as described in H.3.2 and positioned as described in H.3.3.

H.3.2 TEMPLATE AND TEMPLATE DATUM POINT



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

H.3.3 TEMPLATE POSITIONING



It shall be possible to place the template in a single position 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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