

**INTERNATIONAL
OPTIMIST
CLASS RULES
2027 (DRAFT)**



The Optimist was designed in 1947 by Clarke Mills and was adopted as a World Sailing class in 1973.

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INTRODUCTION

*The International Optimist Class is a **Closed Class Rule** (formerly called a One-Design) dinghy for a **crew** of one sailor. The object of the Class is to provide racing at low cost. The intention of the rules therefore is that the **boats** shall be as alike as possible in hull form, construction, weight and weight distribution, **rigging**, **spars** and sail plan.*

*International Optimist **hulls**, **hull appendages**, **rigs** and **sails** are measurement controlled.*

*International Optimist **hulls** in GRP shall only be manufactured by licensed manufacturers as approved and listed from time to time by IODA – in the **class rules** referred to as licensed manufacturers.*

*International Optimist **hulls** in wood, **hull appendages**, **rigs** and **sails** may be manufactured by optional builders and suppliers.*

*Owners and **crews** should be aware that compliance with rules in Section C is NOT checked as part of the certification process. This means that even when these items are new their compliance with these rules should be checked by the owner.*

*The onus at all times is on the owner and the **crew** to ensure their **boat** complies with these rules.*

*The existence of a measurement **certificate** is not a guarantee that the **boat** complies with these rules.*

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.

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

PLEASE REMEMBER:

THESE RULES ARE **CLOSED CLASS RULES** WHERE IF IT DOES NOT SPECIFICALLY SAY THAT YOU MAY – THEN YOU SHALL NOT.

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.2 ABBREVIATIONS

- A.2.1 WS World Sailing (formerly ISAF)
- MNA World Sailing Member National Authority
- IODA International Optimist Dinghy Association
- NCA National Class Association
- ERS The Equipment Rules of Sailing
- RRS The Racing Rules of Sailing
- TC An Event Technical Committee, as defined in Racing Rule 92

A.3 AUTHORITIES

- A.3.1 The **Class Authority** is IODA, which shall co-operate with World Sailing in all matters concerning these **class rules**.
- A.3.2 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so on the request of World Sailing or IODA.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 World Sailing has delegated its administrative functions of the class to IODA. IODA 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 NCA, or the NCA does not wish to administrate the class, its administrative functions as stated in these class rules shall be carried out by IODA which may delegate the administration to the respective MNA.
- A.4.3 **Certification control** shall be carried out by a **certification measurer**, registered with IODA, who shall complete the appropriate documentation and sign measurement forms or **certificates**.

A.5 WORLD SAILING RULES

A.5.1 The **class rules** shall be read in conjunction with the current version of the ERS and RRS.

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.5.3 These rules are complementary to the plans and measurement forms.

A.6 CLASS RULES CHANGES

A.6.1 At World, Continental or Regional Championships the *notice of race* may vary these **class rules** only with the agreement of IODA and World Sailing.

A.6.2 At other events the *notice of race* may vary these **class rules** only with the agreement of IODA.

A.7 CLASS RULES AMENDMENTS

A.7.1 Amendments to these **class rules** are subject to the approval of World Sailing in accordance with World Sailing Regulations.

A.8 CLASS RULES INTERPRETATION

A.8.1 Interpretation of these **class rules**, except as provided by **Error! Reference source not found.**, shall be made in accordance with World Sailing Regulations and Policies.

A.8.2 For the purpose of RRS 63.5(d), the authority responsible for interpreting the **class rule** is the Chair of the IODA Technical Committee.

A.9 INTERNATIONAL CLASS FEE AND ISAF/WORLD SAILING BUILDING PLAQUE

A.9.1 No **hull** shall leave the builder’s premises without the World Sailing building plaque **installed** as per D.2.3(a).

A.9.2 Replacement World Sailing plaques (“R” plaques) are available from IODA.

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by the NCA of the country where the boat is registered.

A.10.2 In countries where there is no NCA, or the NCA does not wish to administrate the class, this function may be delegated to the respective MNA, or to IODA.

The owner shall apply to the appropriate NCA, or its delegate, for a sail number.

The NCA, or its delegate, shall assign the sail number.

A.10.3 Sail numbers shall be consecutive.

A.10.4 Numbering may restart at 1 on reaching number 9999.

A.11 HULL CERTIFICATION

A.11.1 A certificate, **which includes the Builder's Declaration Form**, shall record the following information:

- (a) Class
- (b) **Certification authority**
- (c) Sail number issued by the **certification authority**
- (d) Owner
- (e) Hull moulds identification numbers, for GRP **hull** only
- (f) Building plaque number
- (g) Builder/Manufacturer's details
- (h) Date of allocation of hull moulds identification numbers
- (i) Date of issue of initial certificate
- (j) If a hull is re-measured, the details of the re-measurement shall be reported on the **certificate** by the **certification measurer**
- (k) Date of re-issue of **certificate**
- (l) **Corrector weight** details (total weight and amount)

A.12 INITIAL HULL CERTIFICATION

A.12.1 For a **certificate** to be issued to hull not previously **certified**:

- (a) **Certification control** shall be carried out by a **certification measurer** who shall complete the appropriate measurement form section before the hull leaves the builder's premises.
- (b) The builder's declaration and hull measurement form section completed shall be transferred to the owner of the **hull**.
- (c) For **hulls** manufactured before 1 January 2026 **and without a RFID tag**, the owner is responsible for sending the registration book with the builder's declaration and all measurement form sections completed to the **certification authority**, together with any registration fee that may be required.

Upon receipt of these, the **certification authority** shall complete measurement **certificate** section of the registration book and return it to the owner. Where a **certification authority** prefers to issue its own certificate, this shall be firmly fixed to and mentioned in the registration book.

- (d) For **hulls** manufactured from 1 January 2026 and for **hulls** manufactured before 1 January 2026 with a RFID tag, the digital registration book with the builder's declaration and all measurement form sections completed will be accessible through the IODA digital system and the RFID tag (which may be integrated in the building plaque).

Upon request of the owner, the **certification authority** shall complete in the IODA digital system the measurement **certificate** section of the digital registration book and inform the owner subsequently. Where a **certification authority** prefers to issue its own **certificate**, they shall upload a pdf version into the IODA digital system.

A.13 VALIDITY OF CERTIFICATE

A.13.1 A hull **certificate** becomes invalid upon:

- (a) the change to any items recorded on the hull **certificate** as required under 0. Change of ownership does not necessitate re-measurement.
- (b) withdrawal by the **certification authority**,
- (c) the issue of a new **certificate**,
- (d) any alteration to the **corrector weights** of the **hull** unless and until re-weighed by a measurer and an endorsement of the details has been made by him on the **certificate**.
- (e) withdrawal by IODA based on the conclusion during measurement that the **hull** is not built in accordance with these **class rules**.

A.14 HULL RE-CERTIFICATION

A.14.1 The **certification authority** may issue a **certificate** to a previously **certified hull**:

- (a) when it is invalidated under A.13.1(a), after receipt of the old **certificate**, and **certification** fee if required.
- (b) when it is invalidated under A.13.1(b), at its discretion, after receipt of the **certification** fee if required and, in a case where the withdrawal of the **certificate** was at the request of World Sailing or IODA, subject to approval of the body which made the request.
- (c) when a new **certificate** is required for administrative or other reasons, after receipt of the **certification** fee, if required and, if required by the **certification authority** in the circumstances of the case, after receipt of the old **certificate**.

A.15 REPLACEMENT REGISTRATION BOOKS

A.15.1

- (a) If a replacement registration book is required, it may be obtained from IODA. From 1 January 2026, this replacement registration book will be digital.
- (b) The new registration book will be supplied with the same plaque number as previously issued.
- (c) In the case of **hulls** produced before registration books were introduced, where the measurement **certificate** has been lost a MNA may, after consultation with IODA, issue a replacement measurement **certificate**, valid for all events other than IODA championships, without evidence of measurement, provided that the World Sailing/ISAF/IYRU building plaque remains affixed to the **hull**. (Note that such plaques have numbers lower than 92000).

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 hull **certificate**. From 1 January 2026, the certificate shall be digital,
- (c) have valid **certification marks** as required,
- (d) **have as its owner :**
 - (1) **a person who is current member of an NCA or, when there is no NCA in his nation, of the MNA; or**
 - (2) **a club affiliated with its MNA; or**
 - (3) **an MNA**
- (e) have an ISAF/World Sailing plaque for World Championships regardless of the age of the boat. In order for the boat to be eligible for a World Championship which is subject to initial **fundamental measurement** before the ISAF plaque was introduced, it shall carry an “R” plaque.

B.1.2 The **sail** shall carry a valid **certification mark** according G.1.2.

B.2 CLASS ASSOCIATION MARKINGS

B.2.1 **Hulls** shall carry the building plaque, as specified in D.2.3. In case of loss, a replacement plaque shall be obtained from IODA.

B.2.2 **GRP Hulls** built from 1 January 2026 shall carry an IODA RFID tag (integrated with the building plaque), as specified in D.2.3. **Hulls built before 1 January 2026 may carry an IODA RFID tag.**

B.2.3 **Hull appendages** manufactured from 1 January 2026 shall carry an IODA equipment label, as specified in E.3.2 & E.4.3. **Hull appendages manufactured before 1 January 2026 may carry an IODA equipment label.**

B.2.4 **Spars** manufactured from 1 January 2026 shall carry an IODA equipment label, as specified in F.3.1; F.4.1 & F.5.1. **Spars manufactured before 1 January 2026 may carry an IODA equipment label.**

B.2.5 **Sails** shall carry a sail button/label issued by IODA. See G.1.2.

B.2.6 Replacement equipment labels shall be obtained from IODA.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing* and when *rules* specify. The *Notice of Race* may specify that compliance shall be in effect from the moment equipment is presented for **event equipment inspection**. Measurement to check conformity with rules of Section C is not part of **certification control**. Measurement shall be carried out in accordance with the current version of the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

- (a) The national letters and sail numbers shall comply with the RRS except that:
 - (1) The dimensions specified in C.10.1 below shall apply to the height, width and thickness of the national letters and sail numbers; and
 - (2) The national letters shall be placed on the same line on opposite sides of the **sail** with letters on the starboard side of the **sail** closer to the **luff** than those on the port side of the **sail**; and
 - (3) The sail numbers shall be placed in two rows below the national letters with the starboard side numbers uppermost.
 - (4) No part of the class insignia shall extend beyond 1000 mm of the **peak point**. The class insignia shall be placed back-to-back on both sides of the **sail**.

This changes RRS Appendix G.

- (b) The following ERS rules shall apply as amended below:
 - (1) The upper edge of the luff measurement band shall not extend above the lower edge of the mast uppermost limit mark, and the lower edge of the luff measurement band shall not extend below the upper edge of the mast lowermost limit mark.

At the throat, all mast holes or lacing eyes referred to in F.3.3(a)(1) shall be used to prevent any part of the luff measurement band from rising above the lower edge of the mast uppermost limit mark.

This changes ERS B.1.1 and B.1.2
 - (2) For booms exceeding 2000 mm length, the sail shall be set so that the aftmost part of the leech, projected at 90° to the boom, is at or forward of the outer point.

This changes ERS B.1.3

C.2 CREW

C.2.1 LIMITATIONS

- (a) The **crew** shall consist of 1 person.
- (b) Age. The maximum age is fifteen years on 31 December of the year of the scheduled first race of an event.
- (c) Where a boat is sailing in an international regatta, the **crew** shall be a current member of an NCA or other body which itself shall be a member of IODA, as defined in IODA Article 3(a).

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

- (a) When afloat, the **crew** shall wear a **personal flotation device** to the minimum standard ISO 12402-5 (Level 50), or USCG Type III, or AS 4758 Level 50, or equivalent. **Inflatable personal flotation devices are not permitted.**
- (b) The **personal flotation device** shall be worn properly secured, using all fastening devices supplied by the manufacturer as intended, outside all clothing except that a close-fitting, sleeveless, pocketless bib or vest may be worn outside the **personal flotation device**.
- (c) A whistle shall be carried securely attached to the **personal flotation device**. If a close-fitting bib or vest is worn outside the **personal flotation device**, the whistle shall be carried securely attached to the **personal flotation device** and easily accessible.

C.3.2 OPTIONAL

- (a) **Electronic or mechanical timing devices which do not have any other function/capability. No other electronic device shall be carried by the crew on board.**

C.4 ADVERTISING

C.4.1 LIMITATIONS

- (a) Advertising shall only be displayed in accordance with the World Sailing Advertising Code.
- (b) Advertising may only be applied as a temporary adhesive sticker.

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

(a) FOR USE

One or more bailers which shall each be individually securely attached to the **hull** by rope(s) or elastic cord(s). One bailer shall have a minimum capacity of one litre.

(b) NOT FOR USE

- (1) The boat shall be fitted with a floating tow line of minimum length of 8 m and minimum diameter of 5 mm, securely attached to the mast step.
- (2) A paddle of wood and/or plastic, weighing not less than 200 g, having corner radii of minimum 5 mm and a blade able to contain a rectangle of 200 mm x 130 mm shall be securely attached to the **hull** with a rope or elastic cord.

C.5.2 OPTIONAL

(a) FOR USE

- (1) **Electronic or mechanical timing devices, which shall be removable.**
- (2) **One compass and associated fittings, such as a mounting bracket, which shall all be removable. If electronic, only a compass with heading and timing functions is permitted.**
- (3) The *Notice of Race* or *Sailing Instructions* may require or permit additional electronic equipment to be carried aboard (such as tracking devices, cameras, etc.)
- (4) Drinking bottles, food containers
- (5) Wind indicators, see F.3.3(b)(1)
- (6) Sponges
- (7) Tools & spare parts such as blocks, shackles, ropes, etc.

C.6 BOAT

C.6.1 **The function of permitted fittings shall not be added to, except where specified in these class rules.**

C.6.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Lubricating the mainsheet blocks is permitted.**
- (b) **The use of adhesive tape is in general unrestricted, except that such material shall not be used in such a way as to create a fitting or extend a function of a permitted fitting.**

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) The **hull** as supplied by the licensed builder shall not be **modified** in any way except as permitted by these **class rules**. **Fairing** is prohibited.
- (b) Routine **maintenance** and **repair** is permitted without re-measurement.
- (c) If any hull moulding is **repaired** in any other way than described in C.7.1(b), a **certification measurer** shall describe the details of the **repair** on the **certificate**.

C.7.2 LIMITATIONS

- (a) Only one **hull** shall be used during an event except in case of loss or damage beyond **repair**. Such replacement may be made only with approval of the TC or, in its absence, the *Race Committee*.
- (b) At World Championships and Continental Championships from 1 January 2027 onwards, only a **hull** with an IODA RFID tag (see D.2.3) shall be used.

C.7.3 FLOTATION

It is the crew's/owner's responsibility to ensure that:

- (a) the buoyancy units and their straps do not show deterioration or damage
- (b) the buoyancy units remain inflated while racing
- (c) the straps provide a tight fit for the inflated buoyancy units.

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

Routine **maintenance** and **repairs** are permitted. **Non-transparent coating is prohibited.**

C.8.2 LIMITATIONS

- (a) Only one **daggerboard** and one **rudder** shall be used during an event except in case of loss or damage beyond **repair**. Such replacement may be made only with the approval of the TC or, in its absence, the *Race Committee*.
- (b) GRP boats shall use epoxy **daggerboards** and **rudders**.
- (c) Wood and Wood/Epoxy boats may use either wooden or epoxy **daggerboards** and **rudders**.
- (d) **At World Championships and Continental Championships from 1 January 2027 onwards, hull appendages shall be certified after 28 February 2005 and shall have an IODA equipment label (see E.3.2 and E.4.3).**

C.8.3 DAGGERBOARD

(a) USE

- (1) The **daggerboard** shall be attached to the **hull** by means of an elastic cord or rope through the hole stated in E.3.4(g). A small metal shackle or metal snap hook may be used to attach the elastic cord or rope, either to the **hull** or the **daggerboard**.
- (2) The **daggerboard** may be held in the daggerboard case by a loop of (elastic) cord. A single extra rope, tape or elastic cord may be attached to this cord in order to assist with the process of lowering and raising the **daggerboard**. Both may be padded by using flexible hollow tubing.

C.8.4 RUDDER

(a) USE

- (1) When fitted to the aft transom, the distances from the rudder head frontline to the aft face of the aft transom, measured at the position of both bearing lines, shall not be more than 45 mm and shall not differ by more than 2 mm.

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

Routine **maintenance** and **repairs** are permitted.

C.9.2 FITTINGS

(a) USE

A locking device or other arrangement shall be fitted and used to prevent the **mast** from coming out of its step when the **boat** is capsized.

C.9.3 LIMITATIONS

(a) Only one **mast**, **boom** and **sprit** shall be used during an event, except in case of loss or damage beyond **repair**. Such replacement may only be made with the approval of the TC or, in its absence, the *Race Committee*.

(b) At World Championships and Continental Championships from 1 January 2027 onwards, only **spars** with an IODA equipment label (see F.3.1, F.4.1 and F.5.1) shall be used.

C.9.4 MAST

(a) USE

(1) The **mast** shall be positioned in the mast step so that it shall be unable to move at the mast step or at the passage of the mast through the mast thwart more than 3 mm in any horizontal direction. The position of the **heel** of the **mast** shall not be adjusted while *racing*.

C.9.5 BOOM

(a) USE

(1) A rope may be fastened to the boom jaws or jaws **fitting** through two holes or through two eyes and pass forward around and over a pin positioned on the forward surface of the **mast**.

(2) The position of mainsheet blocks on the **boom** shall not be adjusted while *racing*.

C.9.6 SPRIT

(a) USE

(1) Only the lower end of the sprit shall be **connected** to the mast

C.9.7 RUNNING RIGGING

(a) USE

- (1) The **mainsheet** purchase may be adjusted while racing.

The length of boom stops, if any, shall not be adjusted while *racing*.

- (2) The **vang** shall be secured to a cleat on the **mast**.

The **vang** shall not be adjustable from aft of the midship frame.

- (3) The **outhaul** shall pass through the hole or lacing eye near the end of the boom and shall be secured to the outhaul cleat on the **boom**.

- (4) The **sprit halyard** shall not be adjustable from aft of the midship frame.

C.10 SAILS

C.10.1 IDENTIFICATION

The sail identification shall comply with the following requirements and shall be placed as shown in the Figure “Sail identification location”

National letters and sail numbers:		
Height	230 mm	240 mm
Width (except “l” or “I”)	150 mm	160 mm
Width for M and W	160 mm	170 mm
Thickness	30 mm	40 mm
Space between adjoining numbers or letters	40 mm	50 mm
Space between rows of numbers or letters	40 mm	50 mm
Space between the national letter groups on opposite sides of the sail	100 mm	150 mm
Distance between lower edge of uppermost batten pocket and the national letter which is closest to the leech	40 mm	50 mm

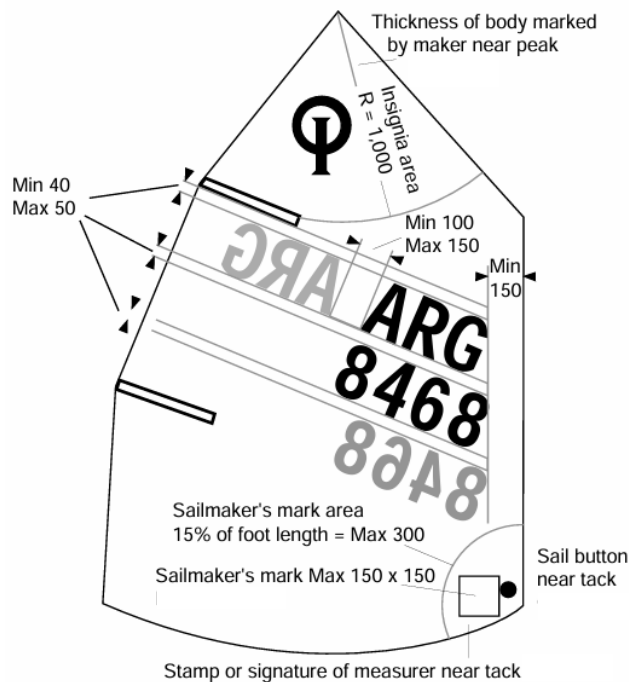


Figure “Sail identification location”

C.10.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Sails** shall not be altered in any way except as permitted by these **class rules**.
- (b) Routine **maintenance** is permitted without re-measurement and re-**certification**. **Repairs** are permitted, but a **certification measurer** shall check compliance with these class rules afterwards. **Modified sails** shall be re-**certified** and the **certification measurer** shall place a new **certification mark** on the **sail** with the new date of **certification control**.
- (c) For the purpose of **repairing** a **sail**, **ply** different to the **ply** of the **body of the sail** may be used.

C.10.3 LIMITATIONS

- (a) Not more than one **sail** shall be used during an event, except when a **sail** has been lost or damaged beyond **repair**. Such replacement may be made only with the approval of the TC or, in its absence, the *Race Committee*.
- (b) At World Championships and Continental Championships from 1 January 2027 onwards, only a **sail** with an IODA equipment label (see G.1.2) shall be used.

C.10.4 MAINSAIL

(a) USE

- (1) Lacing lines shall pass through the eyes/holes at the top of the **mast** and shall be attached through the eyelet at the **throat** of the **sail**. A wind indicator or wind indicator **fittings** may secure, or be secured by these lacing lines, but this does not release the lines from the obligation of passing through the holes or eyes.
- (2) The **luff** of the **sail** shall be attached to the **mast** at each eyelet to be within 10 mm of the **mast**.
- (3) The **foot** of the **sail** shall be attached to the **boom** at each eyelet to be within 10 mm of the **boom**. Alternatively, at the tack eyelet, it may either be lashed to the jaw **fittings** or attached through two holes in the jaws or jaw **fittings**, to be within 10 mm of the **boom** or its imaginary extension.
- (4) The **sail** shall be fastened to the **mast** and **boom** with cordage only.
- (5) The **peak** of the **sail** shall be fastened to the upper end of the **sprit** either by means of an eyelet at the **peak**, or by means of a loop made of tape or rope.

Section D – Hull

D.1 PARTS

D.1.1 MANDATORY

- (a) Each GRP **hull** shall be constructed of only three moulded components:

- (1) Hull shell
- (2) Gunwale – Mast Thwart assembly
- (3) Daggerboard Case – Midship Frame assembly

Each of these three components shall be constructed using only one mould.

Specific rules for GRP **hulls** are specified in D.4 till D.7

- (b) Specific rules for wood and wood/epoxy **hulls** are specified in D.8 till D.11.

D.2 GENERAL

D.2.1 RULES

- (a) A **hull** shall comply with these **class rules** or the **class rules** in force at the time of initial **certification**.

- (b) Boats built before 1 March 1992 may either use the rudder positioning method, which was applicable at the time of building, or the current one.

- (c) GRP **hulls**

- (1) A GRP **hull** initially **certified** between 1 March 1995 and 1 March 1996 shall comply either with **class rules** in force from 1 March 1994 or with the **class rules** in force from 1995.

- (2) A GRP **hull** initially **certified** after 1 March 1996 shall comply with the **class rules** then current.

- (d) Wood and wood/epoxy **hulls**

- (1) A wood or wood/epoxy hull initially **certified** between 1 March 1997 and 1 March 1998 shall conform either to the **class rules** in force from 1 March 1995 or the **class rules** in force from 1 March 1997.

- (2) A wood or wood/epoxy **hull** initially certified after 1 March 1998 shall conform to the **class rules** then current.

D.2.2 CERTIFICATION

- (a) The **hull**, before leaving the builder's premises, shall be measured by a **certification measurer** who shall sign the declaration on the measurement form that it complies with the **class rules**.

Hulls shall be measured in accordance with the appropriate hull measurement instructions.

- (b) The **certification measurer** shall report on the measurement form anything which he considers to be a departure from the intended design of the **hull**, and the measurement **certificate** may be refused.

See also A.12 “initial hull certification”

D.2.3 IDENTIFICATION

- (a) The **hull** shall carry the WS/ISAF/IYRU Building Plaque, legible, clearly shown and permanently glued on the starboard side of the aft face of the mast thwart bulk head.
- (b) **GRP hulls**
 - (1) **RFID tags**
 - (i) For a GRP hull built before 1 January 2026, an IODA RFID tag may be carried next to the ISAF/WS Building Plaque.
 - (ii) For a GRP **hull** built from 1 January 2026, the WS Plaque shall contain a RFID tag.
 - (2) Builders shall apply for a mould identification number allocated by IODA for each mould. The identification number, in figures not less than 10 mm high, shall be moulded in each hull component:
 - (i) **Hull shell**

The forward face of the forward transom (within 60 mm of the centre of this transom) or the aft face of the aft transom (within 60 mm) of the centre of the transom).

All new moulds approved after 1 January 2022 shall have this identification number at the aft face at the aft transom.
 - (ii) **Gunwale – Mast Thwart assembly**

The starboard bottom flange of the mast thwart bulkhead
 - (iii) **Daggerboard Case – Midship Frame assembly**

The forward bottom flange of the daggerboard case.
 - (3) This identification number shall consist of the code number of builder and the code number of mould, both allocated by IODA to each mould and builder following approval of each prototype.
 - (4) This number may be invalidated if it is established that hulls have deviated from class rules after prototype measurement.

- (5) This number will be invalidated on the change of ownership and/or builder of the mould. A new number will be issued on approval of a prototype.

Example of possible hull identification no.:

004N9022804 H

(this example is not valid)

- (6) On a GRP **hull**, the builder shall engrave 15 mm below the identification number, in figures not less than 6 mm high:

Year WS plaque fee number

- (c) Wood and wood/epoxy **hulls**

- (1) For a wood or wood/epoxy **hull** built before 1 January 2026, an IODA RFID tag may be carried next to the WS/ISAF/IYRU Building Plaque
- (2) For a wood or wood/epoxy **hull** built from 1 January 2026, the WS Plaque shall contain an RFID tag.

D.2.4 BUILDERS

- (a) A builder shall permit an IODA representative to inspect work at any time during production of **hulls**.
- (b) **Fittings** may be produced by any manufacturer.
- (c) **GRP hulls**
- (1) GRP **hulls** shall be built by registered builders from approved moulds.
- (2) Prototype measurement for mould approval: It is obligatory for all builders of GRP **hulls** to ensure that any prototype hull measures correctly before series production commences. Only measurers approved by World Sailing and IODA shall measure prototypes.
- (d) Wood and wood/epoxy **hulls**
- (1) Wood and wood/epoxy **hulls** shall be built by registered builders.

D.3 BUILDING AND MATERIALS FOR BUILDING

D.3.1 MATERIALS

(a) **Hulls** shall be built in GRP, wood or wood/epoxy.

(b) GRP **hulls** shall be constructed from:

300 mat, 450 mat	Chopped strand mat of E glass fibres, resp. 300 or 450 g/m ² ($\pm 10\%$). (shall not be coloured)
Woven cloth or biaxial 280	Cloth of woven or otherwise biaxial applied skeins of continuous E glass fibres 280 g/m ² ($\pm 10\%$).
Resin	Polyester resin for GRP lamination (Shall not be coloured)
Bonding agent	Of any material to bond hull components and backing plates where appropriate
Gelcoat	Isophthalic base gelcoat; may be of any colour
Paint	May be of any colour
Foam core 13/60	Durable, non-absorbent closed cell PVC foam, which shall be bonded to the walls. 13 mm ($\pm 10\%$), 60 kg/m ³ ($\pm 10\%$)

No material other than those prescribed above shall be used to build **hulls**. In case of doubt IODA and World Sailing may prescribe any tests and investigations at builder's expense.

(c) Wood and wood/epoxy **hulls** shall be constructed from:

wood	commercially available plywood, of marine or other waterproof grade suitable for boatbuilding minimum 6 mm nominal thickness and weighing not less than 2 kg/m ² shall be used, except that thinner plywood may be used for doubling pieces and in construction of the hull bottom
glue	epoxy resin for bonding
glass tape	(optional)
metal fasteners	(optional)

D.3.2 CONSTRUCTION

- (a) The dimensions and shape of the **hull** shall be as shown on the plans and as given in these class rules and measurement forms and shall conform with the tolerances stated therein.
- (b) **GRP hulls**
 - (1) Unless otherwise specified in these **class rules**, plans and measurement forms, tolerances for **GRP hulls** shall be ± 2 mm. Measurements prescribed as max. (= not more than) or min. (= not less than) shall have no further tolerances.
 - (2) Unless otherwise specified all measurements are in mm (millimeters).
 - (3) **Unless otherwise specified general tolerances are:**
 - Radii at the gelcoat / mould side of the laminate: $+0/-1$
 - Radii at the unfinished / painted side of the laminate: max.
 - Coordinates and other measurements $+2/-2$
 - Reference surfaces X000, Y000 and Z000 have no positioning tolerances, i.e. $+0/-0$
 - (4) Laminate specification and lay up order shall be as defined in these class rules and plans.
 - (5) Distribution of glass content and weight of each laminate shall be uniform throughout within ± 5 %.
 - (6) Thickness of laminate shall be uniform throughout within ± 5 % or 1mm whichever is greater.
 - (7) For the purpose of building efficiency, overlapping of 1 mat, woven cloth or biaxial is permitted within 50 mm from any corner. Overlapping, if any, shall be applied over the full length along each corner.
 - (8) Any laminate shall only have one mould side, which shall be smooth.
 - (9) Except as specified in these **class rules** or plans, holes or cut outs in the gunwale, daggerboard case, midship frame, mast thwart and bulkhead are prohibited.

D.4 HULL SHELL (GRP)

D.4.1 CONSTRUCTION

(a) Laminate specification & lay-up order – bottom laminate

(1) thickness: max. 19 mm

(2)

mould side gelcoat
300 mat
300 mat
450 mat
Foam core 13/60
450 mat
300 mat
painted coat on the entire surface of the exposed inner bottom
A patch or patches of anti-slip paint (total surface not less than 0,50 m ²) on the exposed inner bottom aft of the midship frame, but not closer than 250 mm to the aft transom.
A patch or patches of anti-slip paint are permitted forward of the midship frame but not in front of the aft side of the mast or bulkhead and not closer than 250 mm to the sides.

(3) The upper 300 mat of the bottom laminate shall overlap the 300 mat used in the mast step base to ensure a strong bond between hull and mast step.

(4) Moulded patterns are not permitted except for an optional anti-slip pattern not exceeding 1 mm thickness at the gunwale aft of the midship frame.

- (b) Laminate specification & lay-up order – sides and transoms laminates, incl. rubbing strakes

(1) thickness: max. 4 mm

(2)

mould side gelcoat
300 mat
450 mat
450 mat
280 woven cloth or biaxial
painted coat optional

- (3) One piece of 450 mat, not exceeding 300 mm x 200 mm centered on the vertical centreline of the aft transom may be used for gudgeon reinforcement. The maximum thickness specified in D.4.1(b)(1) may be exceeded in this area.

- (4) Thickness and density of foam core in the bottom laminate shall be uniform throughout within $\pm 3\%$.

- (c) Laminate specification & lay-up order – daggerboard slot laminate

(1) thickness: min. 4 mm / max. 8 mm

(2)

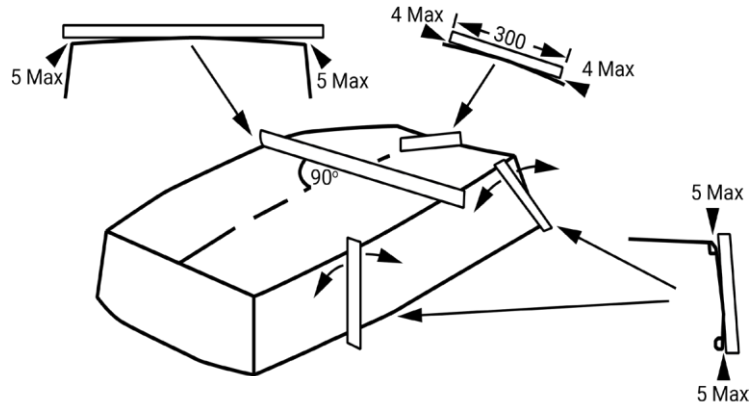
mould side gelcoat
300 mat
min. 2 x 450 mat / max. 5 x 450 mat
300 mat
painted coat optional

D.4.2 DIMENSIONS

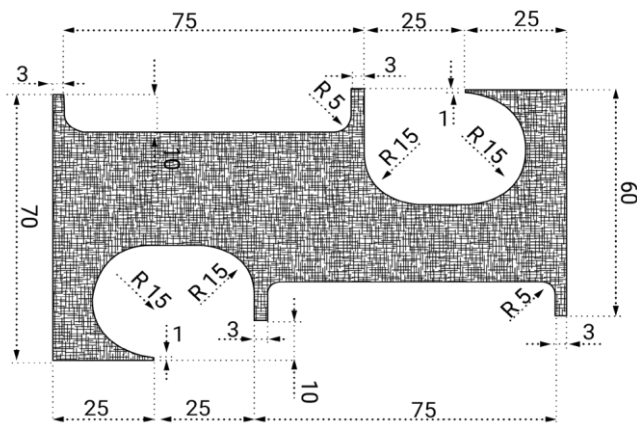
- (a) A straight edge long enough to span the bottom panel chine to chine placed at any point on the panel at right angles to the fore-and-aft centreline shall nowhere be more than 5 mm from the surface of the panel. No hollows are allowed.
- (b) A straight edge placed anywhere in contact with the side panel and spanning the panel and so angled that it lies as close as possible to the panel shall nowhere be more than 5 mm from the surface of the panel
- (c) A straight edge 300 mm long placed anywhere on the bottom panel parallel to the fore-and-aft centreline of the **hull** shall nowhere be more than 4 mm from the surface of the bottom panel. No hollows are allowed.

A straight edge 150 mm long, placed in the same way, shall nowhere be more than 2 mm from the bottom panel.

- (d) The forward and aft transoms shall be flat with not more than 5 mm tolerance.



- (e) For the purpose of these and other ‘panel flatness measurements’, the extent of the panels will be limited by an edge zone, defined by the “Standardized Edge-Zone and Sheerline Finder”.



- (f) The outside edges of the **hull** between the bottom and side panels, between the bottom and forward transom, and between the side panels and forward transom shall be rounded to a radius of 10 +0/-1 mm. At the aft transom side and bottom outside edges no radius is permitted.

D.5 DAGGERBOARD CASE AND MIDSHIP FRAME (GRP)

D.5.1 CONSTRUCTION

- (a) Laminate specification & lay-up order – daggerboard case -midship frame assembly, except flanges and top of daggerboard case laminate

(1) thickness: min. 4 mm / max. 8 mm

(2)

mould side gelcoat
300 mat
min. 3 x 450 mat / max. 6 x 450 mat
painted coat optional

- (b) The exposed edges of the midship frame top flange and daggerboard case opening shall be rounded to the maximum possible radius.
- (c) For the purpose of positioning and fixing, the top of the daggerboard case and the flanges of the midship frame-daggerboard case assembly shall consist of min. 3 x 450 mat / max. 5 x 450 mat (min. 3 mm / max. 8 mm thickness)

At the top of the daggerboard case, the distribution of glass content and the thickness of the laminate need not be uniform throughout.

D.5.2 DIMENSIONS

- (a) The midship frame aft face shall be flat with not more than 5 mm tolerance.
- (b) The daggerboard case (vertical) sides shall be flat with not more than 5 mm tolerance.
- (c) The top sides of the midship frame and daggerboard case shall be flat +2/-0 mm (i.e. no hollows allowed).
- (d) The inside length of the daggerboard case slot and of the slot in the bottom panel shall be 330 ± 4 mm.
- (e) The inside width of the daggerboard case slot shall be 17 ± 1 mm.
- (f) The vertical ends in the daggerboard case slot shall be square to the baseline. At each end a rake to taper not exceeding 4 mm is permitted.
- (g) The fore and aft ends of the slot shall be semi-circular in cross section.
- (h) The daggerboard case top side, measured at the top edges of the ends of the daggerboard slot, shall be parallel to the upper baseline, within a tolerance of 5 mm maximum.

D.6 MAST THWART AND MAST THWART BULKHEAD (GRP)

D.6.1 CONSTRUCTION

(a) Laminate specification & lay-up order – mast thwart laminate

(1) thickness: max. 17 mm

(2)

mould side gelcoat
300 mat
300 mat
300 mat
foam 13/60
450 mat
within 50 mm of the mast hole: min. 3 / max. 5 additional layers of 450 mat may be used as local reinforcement
painted coat optional

(b) Laminate specification & lay-up order – mast thwart bulkhead laminate, except flanges

(1) thickness: max. 4 mm

(2)

mould side gelcoat
300 mat
450 mat
450 mat
painted coat optional

- (c) The exposed edges of the mast thwart and mast thwart bulkhead opening shall be rounded to the maximum possible radius.
- (d) Thickness and density of foam core in the mast thwart laminate shall be uniform throughout within $\pm 3\%$.
- (e) For the purpose of positioning and fixing, the flanges of the mast thwart bulkhead shall consist of min. 3 x 450 mat / max. 5 x 450 mat (min. 3 mm / max. 8 mm thickness)
- (f) At the flanges of the mast thwart bulkhead, the distribution of glass content and the thickness of the laminate need not be uniform throughout.

D.6.2 DIMENSIONS

- (a) The mast thwart bulkhead shall be flat with not more than 5 mm tolerance.
- (b) The top side of the mast thwart shall be flat +2/-0 mm (i.e. no hollows allowed).

D.7 GUNWALE AND RUBBING STRAKES (GRP)

D.7.1 CONSTRUCTION

- (a) The gunwale-rubbing strake section is defined perpendicular* to the **sheerline**. Its positioning angle is fixed and related to the baseline reference surface only.

The gunwale section shall be constant throughout its entire length, including the forward and aft transom, except within 180 mm of the intersection between transom and side **sheerlines**.

The rubbing strake section shall be constant throughout its entire length, except within 10 mm of the intersection between transom and side **sheerlines**.

(* if **sheerline** is curved, perpendicular = along the radius of the **sheerline** curve).

- (b) Laminate specification & lay-up order – gunwale laminate, incl rubbing strake

(1) thickness: max. 4 mm

(2)

mould side gelcoat
450 mat
450 mat
450 mat
300 woven cloth as supporting reinforcement between inner hull sides and inner gunwale, except forward of the mast thwart bulkhead. Gaps of up to 55 mm wide are permitted at the aft corners, at each side of the side members and at the aft side of the mast thwart bulkhead. The width of this reinforcement shall be 50 ± 5 mm.

- (c) The exposed edges of the gunwale and rubbing strake shall be rounded to the maximum possible radius.



D.8 HULL SHELL (WOOD AND WOOD/EPOXY)

D.8.1 CONSTRUCTION

(a) Traditional wood construction

- (1) The hog, bilge stringers and chine shall be of wood bonded to the inside of the bottom panel. They shall each be of uniform thickness and shall each be of uniform width:
 - (i) for the hog: 16 mm x 100 mm min.
 - (ii) for the bilge stringers and chine: 16 mm x 35 mm min.
- (2) The scantlings for the frames, hog, stringers and chine shall comply with but exposed corners may be rounded to a maximum radius of 5 mm.
- (3) As optional construction, the bow and aft transoms shall be of plywood with a nominal thickness of min. 6 mm and max. 12 mm.
- (4) The bottom and side panels, as well as the knees, shall be of plywood with a nominal thickness not less than 6 mm. The bottom and side panels shall each be of the same nominal thickness throughout.
- (5) The knees at the transom may be inset so that their upper surfaces are level with the top of the gunwale stringers.
- (6) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.
- (7) The shape of the hole in the mast step is optional.

(b) Wood/epoxy construction

- (1) The hog, bilge stringers and chine shall be of plywood bonded to the inside of the bottom panel. They shall each be of uniform thickness and shall each be of uniform width:
 - (i) for the hog: not less than 180 mm wide;
 - (ii) for the stringers: not less than 70 mm wide, except forward of the mast thwart bulkhead where they may be tapered to conform to the shape of the bottom panels
 - (iii) the thickness of the bottom panel and hog or stringers together shall be not less than 15 mm.
- (2) Alternatively the bottom may be constructed of one or more sheets of plywood with a total uniform thickness of not less than 15 mm. When such a construction is used, hog and stringers are not required.

- (3) The scantlings shown on the plans for the frames, hog and stringers shall be complied with but exposed corners may be rounded to a maximum radius of 5 mm.
- (4) The bottom panel shall either be stitched to the side panels and transoms with copper wire at spacing of not more than 60 mm, and/or glued with epoxy glue. The joints may be taped inside and/or outside with glass tape and resin.
- (5) As optional construction, the bow and aft transoms shall be of plywood with a nominal thickness of min. 6 mm and max. 12 mm.
- (6) The bottom and side panels, as well as the knees, shall be of plywood with a nominal thickness not less than 6 mm. The bottom and side panels shall each be of the same nominal thickness throughout.
- (7) The knees at the transom may be inset so that their upper surfaces are level with the top of the gunwale stringers.
- (8) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.
- (9) The shape of the hole in the mast step is optional.

D.8.2 DIMENSIONS

- (a) The outside edges of the **hull** between the bottom and side panels, between the bottom and forward transom, and between the side panels and forward transom shall be rounded to a radius of 4 ± 2 mm. At the aft transom side and bottom outside edges no radius is permitted.

D.9 DAGGERBOARD CASE AND MIDSHIP FRAME (WOOD AND WOOD/EPOXY)

D.9.1 CONSTRUCTION

- (a) Traditional wood construction
 - (1) The midship bottom frame and the daggerboard case sides shall be of plywood with a nominal thickness of 12 mm.
 - (2) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.

(b) Wood/epoxy construction

- (1) The midship bottom frame and the daggerboard case sides shall be of plywood with a nominal thickness of 12 mm.
- (2) Joints between midship frame and bottom panel, midship frame and the sides shall be taped with glass tape and resin or glued with epoxy glue fillets.
- (3) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.

D.9.2 DIMENSIONS

- (a) There shall be a midship frame positioned as shown on the plans with limber holes in the positions shown.
- (b) The inside of the daggerboard case and of the slot in the hog and bottom panel shall be 330 ± 5 mm.
- (c) The inside width of the daggerboard case and the slot in the hog and bottom panel shall be 17 ± 1 mm.
- (d) The ends in the daggerboard case slot shall be parallel and square to the base line. A rake to taper not exceeding 5 mm is permitted.
- (e) The upper edge of the daggerboard case shall be parallel to the base line, with a tolerance of 5 mm maximum.

**D.10 MAST THWART AND MAST THWART BULKHEAD
(WOOD AND WOOD/EPOXY)**

D.10.1 CONSTRUCTION

(a) Traditional wood construction

- (1) The mast thwart bulkhead shall be of plywood with a nominal thickness not less than 6 mm.
- (2) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.

(b) Wood/epoxy construction

- (1) The mast thwart bulkhead shall be of plywood with a nominal thickness not less than 6 mm.
- (2) Exposed edges of plywood may be capped with solid wood or plywood. The depth of the capping shall not exceed the thickness of plywood being covered and its width shall not exceed the width of the part of assembled parts being capped.

D.10.2 DIMENSIONS

- (a) There shall be a mast thwart positioned as shown on the plan. It shall be 195 ± 5 mm wide and not less than 16 mm nor more than 25 mm thick.
- (b) There shall be a mast thwart bulkhead fixed to the aft side of the mast thwart, and in wooden hulls to the side pieces secured to the side panels, as shown on the plans.

D.11 GUNWALE AND RUBBING STRAKES (WOOD AND WOOD/EPOXY)

D.11.1 CONSTRUCTION

- (a) Traditional wood construction
 - (1) The gunwale stringer shall be of uniform thickness and shall be of uniform width: 16 mm x 35 mm.
 - (2) The exposed edges of the gunwale stringer and the rubbing strake shall be rounded to a radius of not less than 5 mm.
- (b) Wood/epoxy construction
 - (1) The gunwale stringer shall be of uniform thickness and shall be of uniform width: 16 mm x 35 mm.
 - (2) The exposed edges of the gunwale stringer and the rubbing strake shall be rounded to a radius of not less than 5 mm.

D.12 ASSEMBLED HULL

D.12.1 FITTINGS

(a) MATERIALS

The use of titanium is prohibited.

(b) MANDATORY

The following **fittings** are mandatory:

- (1) 2 mainsheet blocks, each fixed to a mounting and each with a maximum of 2 sheaves. The centre of the mountings shall be respectively 786 ± 5 mm and 894 ± 5 mm from the forward face of the aft transom. One of the mainsheet blocks may be a ratchet block.
- (2) An adjustable mast step, including a metal backing plate.
- (3) Two gudgeons for the **rudder** shall be fixed to the aft transom, with holes $6,0 \pm 0,1$ mm diameter. The distance between the bearing lines of the two gudgeons shall be not less than 200 mm. The depth of the pivoting holes in the two gudgeons shall not exceed 5 mm, and the distances from those holes to the aft face of the aft transom shall not differ by more than 2 mm.

- (4) 2 toe straps and 4 associated fixing plates (for attaching the straps to the midship frame; two for each strap) of

- 50 ± 10 mm x 20 ± 5 mm x 2 ± 1 mm if metal, or
- 50 ± 10 mm x 20 ± 5 mm x 7 ± 3 mm if plastic.

Up to three pieces of cord or elastic cord may be used to lift the toe-straps off the hull shell floor.

- (5) 3 buoyancy units, including straps and associated backing and fixing plates:

- (i) Buoyancy units

The **hull** shall be fitted with three buoyancy units in the form of inflated air bags made of strong fibre-reinforced material. Each unit shall be 45 ± 5 litres. Each unit shall be equipped with a fill valve that positively prevents the accidental release of air (i.e. nonreturn valve and threaded valve with screw-on cap).

One unit shall be placed along the whole width of the aft transom and one unit shall be placed along each side between the midship frame and mast thwart bulkhead.

- (ii) Straps

Buoyancy units shall be secured to the **hull** by three straps, **made of synthetic polymer, either webbing or laminated ply with additional ply or folded ply overlap at the end for screw placement.** Each strap shall be 45 ± 6 mm wide.

- (iii) Backing and fixing plates

In GRP **hulls**, each strap attachment point shall have a metal backing plate of 50 ± 10 mm x 20 ± 5 mm x 2 ± 1 mm.

Each strap, except for the aft transom centre strap, shall be fastened by means of a fixing plate,

- 50 ± 10 mm x 20 ± 5 mm x 2 ± 1 mm if metal, or
- 50 ± 10 mm x 20 ± 5 mm x 7 ± 3 mm if plastic.

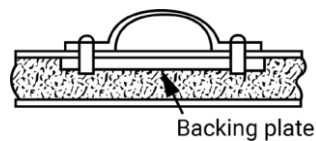
At the aft centre strap, a bigger plate

- 50 ± 10 mm x 50 ± 10 mm x 2 ± 1 mm if metal, or
- 50 ± 10 mm x 50 ± 10 mm x 7 ± 3 mm if plastic

for combined use with the toe-strap shall be used. Alternatively an eye may be used for attachment of the aft end of the toe straps at the aft centre strap attachment point.

- (6) Backing plates, when used in a GRP **hull**, shall comply with the Plans and laid-in as shown on this diagram (i.e. top surface of backing plate flush with top of bottom foam core).

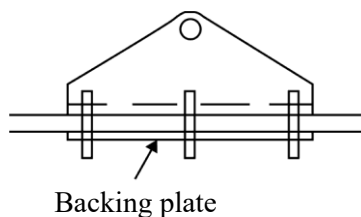
As from 1 October 2016, **fittings** including backing plates, shall comply with the dimensions of the laid-in backing plates and be securely attached to them as shown. **Hulls** fitted with mast step devices not complying with this rule and presented for first measurement before 1 October 2016 may conform to the rules valid before 1 October 2016.



- (7) 1 mast hole in the thwart, approximately circular. The diameter is optional but shall not vary more than 3 mm in any direction.
- (8) In a GRP **hull**, 1 hole (diameter max. 8 mm) on the centre line in the top of the forward gunwale just after the forward transom, for drainage.
- (9) In a GRP **hull**, 1 hole (diameter max. 8 mm) on the centre line in the top of the aft gunwale just before the aft transom, for drainage and/or for fixing of an optional shock-cord to tension the toe-straps.
- (10) In a GRP **hull**, 1 hole (diameter max. 8 mm) on the centre line in the daggerboard case top side, aft of the daggerboard slot, for drainage.

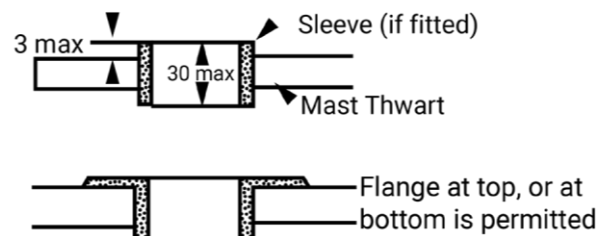
(c) OPTIONAL

- (1) A backing plate positioned inside the aft transom for each rudder gudgeon.
- (i) If used, it shall be metal, with maximum dimensions of 60 mm x 25 mm x 3 mm.
- (ii) If not used, a washer for each bolt may be used.



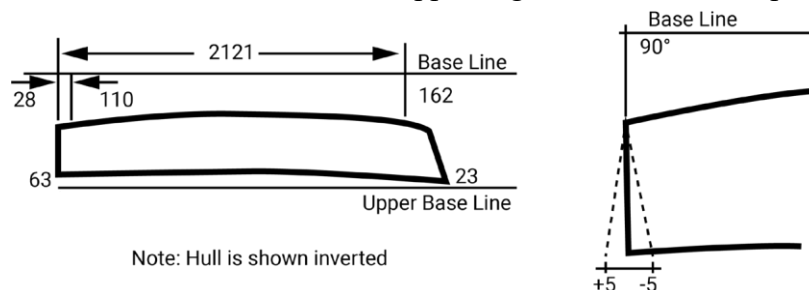
- (2) An arrangement to keep the mainsheet blocks upright, which shall be removable for weighing the **hull**.
- (3) Continuous strips of non-metallic material, fitted to the daggerboard case slot within 30 mm of the top and bottom of the daggerboard case slot. These strips must run the full length of the daggerboard slot to achieve a uniform opening of 16 ± 2 mm at the top and bottom of the daggerboard case slot.

- (4) Non-metallic material, placed within 30 mm in any direction of each end of the top and bottom of the daggerboard case slot to act as positioning and protection of the daggerboard. This additional material shall be removed upon request of a measurer for the measurement of the daggerboard case slot.
- (5) The (elastic) cord described in C.8.3(a)(2) may be fixed using:
 - (i) one or two eyes, attached to the daggerboard case; or
 - (ii) two holes in the mast thwart bulkhead.
- (6) An eye, to secure the **mast** to the **hull** by means of a strap, attached to the thwart in front of the mast hole
- (7) A sleeve of any material may be fitted in the mast hole to limit abrasion. The sleeve shall not extend more than 3 mm above the mast thwart. The total height of the sleeve shall not exceed 30 mm.



D.12.2 DIMENSIONS

- (a) The baseline shall be a horizontal line passing through points which are 110 mm and 162 mm below the outer surface of the hull on its centreline at 28 mm and 2121 mm respectively from a vertical plane through the lower corner of the aft transom.
- (b) The upper baseline shall be a horizontal centreline passing through points which are 63 mm above the highest point of the aft transom and 23 mm above the highest point of the forward transom.
- (c) The aft transom shall be at right angles to the baseline but a maximum of deviation of 5 mm, measured at the upper edge of the transom is permitted.



(d) **Hull length**

- (1) The **hull length** of a GRP **hull** shall be 2300 ± 7 mm, measured at the **sheerline**. For **hull length** and **hull beam** measurements the **sheerline** shall be defined using the “Standardized Edge-Zone and **Sheerline** Finder” (see D.4.2(e)).
- (2) The **hull length** of a wood or wood/epoxy **hull** shall be 2300 ± 12 mm, measured at the **sheerline**.

D.12.3 WEIGHTS

- (a) The hull weight, including rudder gudgeons fixed to the aft transom, buoyancy straps, toe straps and associated **fittings**, mast step, block **fittings** permanently attached, but excluding: **corrector weights**, blocks, mainsheet, buoyancy units, tow line, bailer(s), paddle, compass (with bracket if any) and fixings, retaining clips for water bottles, food containers or other **personal equipment** and fixings, and all other not specifically permitted items shall not be less than 32 kg in dry condition.
- (b) The hull weight, as prescribed in D.12.3(a) but including buoyancy units shall not be less than 35 kg in dry condition.
- (c) The minimum weight of each buoyancy unit shall be 200 grams.
- (d) Any attempt to concentrate the weight of the **hull** is prohibited.

D.12.4 HULL CORRECTOR WEIGHTS

- (a) If the hull weight according to D.12.3(b) is found to be less than 35 kg, wood **corrector weights** shall be permanently **bonded**, half to the forward transom and half to the aft transom.

The total weight of such **corrector weights** shall not exceed 2,4 kg.

- (b) The weight of each **corrector weight** shall be stamped or otherwise marked on the **corrector weight** and endorsed on the measurement **certificate**. **Corrector weights** shall not be removed or altered without the **hull** being re-weighted by a **certification measurer**.

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) One **daggerboard**
- (b) One **rudder** assembly, consisting of a rudder blade, a tiller and a fixed-length tiller extension

E.2 GENERAL

E.2.1 RULES

- (a) **Hull appendages** shall comply with these **class rules**, except where otherwise stated.

E.2.2 CERTIFICATION

- (a) The **certification measurer** shall certify **hull appendages**.
 - (1) For **hull appendages** manufactured before 1 January 2026, the details shall be recorded on the certificate.
 - (2) For **hull appendages** manufactured from 1 January 2026, the details shall be recorded in the IODA digital system.

E.2.3 MANUFACTURERS

- (a) From 1 January 2026, **hull appendages** shall only be manufactured by **registered manufacturers**.
- (b) Manufacturers shall provide laminated samples and specifications of all materials used to IODA.
- (c) Serial numbers
 - (1) For **hull appendages** manufactured before 1 January 2026, manufacturers shall allot a serial number to each **hull appendage**.

These serial numbers shall be reported on the appropriate measurement form by the **certification measurer** (see E.3.2 and E.4.3).
 - (2) For **hull appendages** manufactured from 1 January 2026, the serial number is automatically assigned by the IODA digital system to the IODA equipment label.
- (d) If a manufacturer of **hull appendages** and/or **fittings** is found to have supplied **hull appendages** and/or **fittings** that do not comply with the rules in application, he shall be liable to rectify the error or replace the **hull appendages** and/or **fittings** at his own expense, provided the error is made known to the manufacturer within twelve months of purchase.

E.2.4 FLOTATION

- (a) **Daggerboard** and **rudder** assembly, including tiller and tiller extension, shall float.

E.3 DAGGERBOARD

E.3.1 RULES

- (a) The **daggerboard** shall comply with the **class rules**, **except that daggerboard** presented for certification before 28 February 2005 may conform to the rules valid before 1 March 2004.

E.3.2 MANUFACTURERS

- (a) The IODA equipment label shall be embedded in the laminate between 50 mm and 100 mm from the top of the daggerboard, on the starboard side.

- (b) Epoxy **daggerboards**

- (1) For **daggerboards** manufactured before 1 January 2026, the manufacturer's name, the serial number, a manufacturer generated mould identification number and the year of manufacture shall be laminated into the **daggerboard** in characters 10 ± 2 mm high on the starboard side, $25 +5/-0$ mm below the bottom edge of the stop batten.
 - (2) For **daggerboards** manufactured **from** 1 January 2026, the IODA equipment label shall be visibly embedded in the laminate as per E.3.2(a).

The area below the stop battens shall contain laminated the manufacturer and daggerboard model names **in characters 10 ± 2 mm high on the starboard side. It may contain a logo, provided it complies with the World Sailing Advertising Code.**

- (c) Wooden **daggerboards**

- (1) For **daggerboards**, the manufacturer's name and year of manufacture shall be indelibly marked in the same position as the epoxy **daggerboards** and with characters of the same size as the epoxy **daggerboards**.
 - (2) For **daggerboards** manufactured as from 1 January 2026, the IODA equipment label shall be visible embedded in the daggerboard as per E.3.2(a).

E.3.3 MATERIALS

(a) Epoxy **daggerboards**:

Resin	Epoxy resin for epoxy lamination (shall not be coloured)
Foam core 13/60	Durable, non-absorbent closed cell PVC foam. 13 mm ($\pm 10\%$), 60 kg/m ³ ($\pm 10\%$)
Unidirectional 600	Unidirectional mat of E glass fibres, 600 g/m ² ($\pm 10\%$)
Woven cloth 280	Cloth of woven or otherwise biaxial applied skeins of continuous E glass fibres 280 g/m ² ($\pm 10\%$). Pre-impregnated cloth is not permitted.
Mat 100	Chopped strand mat of E glass fibres, 100 g/m ² ($\pm 10\%$). (shall not be coloured)
Glue	Epoxy, for bonding battens to the daggerboard only
Gelcoat	Shall be clear
Wood	Any type, for battens only

(b) Wooden **daggerboards**:

Plywood	A single sheet of commercially available plywood shall be used.
Glue	Epoxy, for bonding battens to the daggerboard only
Paint	Clear varnish or clear epoxy, suitable for marine use
Wood	Any type, for battens only

E.3.4 CONSTRUCTION

- (a) Epoxy **daggerboards** shall comply with the following laminate specification:

Mould side gelcoat
Mat 100
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the daggerboard .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the daggerboard .
Unidirectional 600, to be applied with the fibres running parallel to the aft edge of the daggerboard .
Foam core 13/60
Unidirectional 600, to be applied with the fibres running parallel to the aft edge of the daggerboard .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the daggerboard .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the daggerboard .
Mat 100
Mould side gelcoat

- (b) The **daggerboard** shall be generally a rectangular flat plane in shape, except as otherwise stated in E.3.6.
- (c) Upper corners and stop batten edges shall have no sharp projections.
- (d) Bevelling is permitted between all edges (except for the top edge) and the bevelling limits. There shall be no bevelling underneath the stop battens.
- (e) The **daggerboard** shall be fitted with stop battens, one on each side of the **daggerboard**. Sizes and shapes of stop battens shall be generally uniform without cut-outs and/or sudden changes. The battens shall extend over the full width of the board with the top of the battens level with the top of the board.
- (f) The stop battens shall be fixed with glue, and two $5 \pm 1,5$ mm metal bolts and nuts. The length of these fasteners shall be the same $+0/-5$ mm as the thickness of the assembled **daggerboard** and stop battens.
- (g) One hole shall be drilled through the **daggerboard** and the battens in any place. Its diameter shall not exceed 10 mm.

E.3.5 FITTINGS

(a) OPTIONAL

- (1) Non-metallic reinforcement (bushing) of diameter not more than 20 mm may be used around holes, screws, rivets or bolts.

E.3.6 DIMENSIONS

	minimum	maximum
Length	1062 mm	1072 mm
Width	280 mm	290 mm
Variation of length and width		3 mm
Radius of lower corners		32 mm
Radius of upper corners		5 mm
Thickness of the daggerboard (excluding bevels)		
- epoxy daggerboard	14 mm	15 mm
- wooden daggerboard	12 mm	15 mm
Bevelling limits from, all edges		60 mm
Depth of stop battens, throughout	30 mm	40 mm
Thickness of assembled stop battens and daggerboard , throughout	40 mm	50 mm
Radius of exposed edges of stop battens	3 mm	5 mm

E.3.7 WEIGHTS

	minimum	maximum
Daggerboard weight , in dry condition; including the bushing (see E.3.5(a)(1)) if any, and excluding attachment or positioning features	2,0 kg	
Centre of gravity of the assembled daggerboard and stop battens from the lower edge	520 mm	

Corrector weights on or cut-outs of the **daggerboard** are prohibited.

E.4 RUDDER AND TILLER

E.4.1 RULES

- (a) The **rudder** shall comply with the **class rules**, **except that rudders** presented for certification before 28 February 2005 may conform to the rules valid before 1 March 2004.
- (b) The positioning fittings of the rudder themselves shall comply with the rules for the rudder corresponding with the rules stated in D.2.1(b).

E.4.2 DEFINITIONS

- (a) Bearing lines: two horizontal lines (parallel to the baseline) through the bearing points of the rudder **fittings**.
- (b) Rudder head front line: line passing through the intersections of the forward edge of the **rudder** and the two bearing lines.

E.4.3 MANUFACTURERS

- (a) The IODA equipment label shall be embedded in the laminate between 50 mm and 100 mm from the top of the rudder, on the starboard side.
- (b) Epoxy **rudders**

- (1) For **rudders** manufactured before 1 January 2026, the manufacturer's name, the serial number, a manufacturer generated mould identification number and the year of manufacture shall be laminated into the **rudder** in characters 10 ± 2 mm high on the starboard side.
 - (2) For **rudders** manufactured **from** 1 January 2026, the IODA equipment label shall be embedded in the laminate as per E.4.3(a).

The manufacturer's name **and rudder model name** shall be laminated into the **rudder** in characters 10 ± 2 mm high on the starboard side. **It may contain a logo, provided it complies with the World Sailing Advertising Code.**

- (c) Wooden **rudders**

- (1) For **rudders**, the manufacturer's name and year of manufacture shall be indelibly marked in the same position as the epoxy **rudders** and with characters of the same size as the epoxy **rudders**.
 - (2) For **rudders** manufactured from 1 January 2026, the IODA equipment label shall be visibly embedded in the **rudder** as per E.4.3(a).

E.4.4 MATERIALS

(a) Epoxy **rudders**:

Resin	Epoxy resin for epoxy lamination (shall not be coloured)
Foam core 13/60	Durable, non-absorbent closed cell PVC foam. 13 mm ($\pm 10\%$), 60 kg/m ³ ($\pm 10\%$)
Unidirectional 600	Unidirectional mat of E glass fibres, 600 g/m ² ($\pm 10\%$)
Woven cloth 280	Cloth of woven or otherwise biaxial applied skeins of continuous E glass fibres 280 g/m ² ($\pm 10\%$). Pre-impregnated cloth is not permitted.
Mat 100	Chopped strand mat of E glass fibres, 100 g/m ² ($\pm 10\%$). (shall not be coloured)
Gelcoat	Shall be clear

(b) Wooden **rudders**:

Plywood	A single sheet of commercially available plywood shall be used.
Paint	Clear varnish or clear epoxy, suitable for marine use

(c) Tiller and tiller extension:

- (1) The use of titanium and carbon fibre reinforced polymers is prohibited.
- (2) epoxy **rudders**:
The tiller and tiller extension shall be made of aluminum.
- (3) wooden **rudders**:
The tiller and tiller extension shall be made of wood or aluminum.
- (4) The use of a grip made of plastic and/or rubber on the tiller extension is permitted
- (5) The joint between the tiller and tiller extension is optional and may be made of metal, rubber or plastic.

E.4.5 CONSTRUCTION

- (a) Epoxy **rudders** shall comply with the following laminate specification:

Mould side gelcoat
Mat 100
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the rudder .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the rudder .
Unidirectional 600, to be applied with the fibres running parallel to the aft edge of the rudder .
Foam core 13/60
Unidirectional 600, to be applied with the fibres running parallel to the aft edge of the rudder .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the rudder .
Woven cloth 280, to be applied with one set of fibres running parallel to the aft edge of the rudder .
Mat 100
Mould side gelcoat

- (b) Bevelling is permitted between the edges and the bevelling limits. There shall be no bevelling on the top of the rudder head.
- (c) The tiller shall be removable and shall be fixed to the **rudder** with two $5 \pm 1,5$ mm metal bolts.
- (d) Tiller, tiller extension and **fittings** shall have no sharp projections.

E.4.6 FITTINGS

- (a) MANDATORY

- (1) Two pintles shall be fixed on the **rudder**, their diameter shall not be more than $6,0 \pm 0,1$ mm. The distance between the upper edge of the tiller and the bearing line of the upper pintle shall be not less than 85 mm, measured along the rudder head frontline. The corresponding distance between the pintles shall not be more than 200 mm.
- (2) A retaining clip/spring shall be fitted on the forward edge of the rudder head, not less than 5 mm below the bearing line of the upper pintle, preventing the rudder and tiller assembly from becoming detached from the hull.

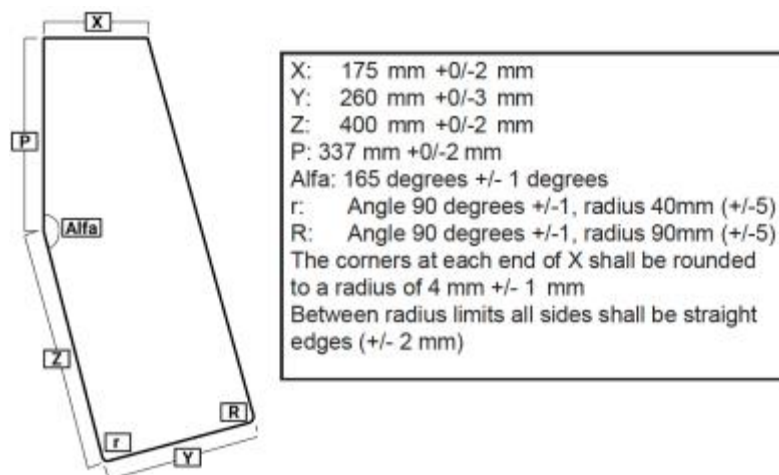
(b) OPTIONAL

(1) Non-metallic reinforcement (bushing) of diameter not more than 20 mm may be used around screws, rivets or bolts.

(2) Retaining clip for **fastening** the tiller extension to the tiller.

E.4.7 DIMENSIONS

(a) The rudder shape shall conform with the dimensions and requirements as detailed in the diagram and table below:



	minimum	maximum
Thickness of the rudder (excluding bevels)		
- epoxy rudder	14 mm	15 mm
- wooden rudder	12 mm	15 mm
Bevelling limits, from all edges		60 mm
Length of tiller		750 mm
Length of tiller extension		750 mm
Combined length of tiller and tiller extension		1200 mm

E.4.8 WEIGHTS

	minimum	maximum
Rudder assembly weight , in dry condition	1,5 kg	

Corrector weights on the **rudder** assembly are prohibited.

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

- (a) **Mast**
- (b) **Boom**
- (c) **Sprit**
- (d) **Running rigging.**

F.2 GENERAL

F.2.1 RULES

- (a) The **spars** and their **fittings** shall comply with the **class rules**, except where otherwise stated.
- (b) The **running rigging** shall comply with the **class rules**, except where otherwise stated.

F.2.2 CERTIFICATION

- (a) The **certification measurer** shall **certify spars**.
 - (1) For **spars** manufactured before 1 January 2026, the details shall be recorded on the certificate.
 - (2) For **spars** manufactured from 1 January 2026, the details be recorded in the IODA digital system.
- (b) No certification of **running rigging** is required.

F.2.3 MANUFACTURERS

- (a) Serial numbers
 - (1) Manufacturers shall allot a manufacturer serial number to each **spar**.
 - (2) Serial numbers shall be reported on the appropriate measurement form by the **certification measurer** and shall clearly and indelibly be marked by the manufacturers.
- (b) If a manufacturer of **spars** and/or **fittings** is found to have supplied **spars** and/or **fittings** that do not comply with the rules in application, he shall be liable to rectify the error or replace the **spars** and/or **fittings** at his own expense, provided the error is made known to the manufacturer within twelve months of purchase.

F.2.4 MATERIALS

- (a) **Spars** shall be made of either an aluminum alloy tube or, of solid wood.
aluminum alloy tube spars may be anodised;
wooden spars may be varnished.
- (b) Plastic, wood or metal may be used for end caps and **fittings** including the boom jaws. The use of titanium and carbon fibre reinforced materials is prohibited.

F.2.5 CONSTRUCTION

- (a) The wall thickness of the aluminum alloy tubing shall be constant through the **spars**. Internal sleeves, ribs or stiffening are prohibited.
- (b) Wooden **spars** shall be of not more than two pieces of wood.
- (c) Any exploitation of tolerances in order to achieve non-circular, tapered or otherwise variable **spars**, is prohibited.
- (d) End caps, sprit end and jaws **fittings** shall be permanently fixed, but may be glued to the **spars**.
- (e) Unless specifically permitted by these rules, **fittings** on **spars** shall be permanently fixed by means of rivets, screws, and/or nuts and bolts.
- (f) Aluminum **spars** shall either be
 - (1) sealed by means of
 - (i) the **fittings** inside the **spar**; and/or
 - (ii) end caps, sprit end or jaws **fittings**
 - (2) filled with foam

F.2.6 FLOTATION

Spars shall be capable of floating approximately horizontally for thirty minutes with no discernible water penetration for a sealed **spar** or loss of buoyancy for a foam filled **spar**.

F.3 MAST

F.3.1 MANUFACTURERS

- (a) From 1 January 2026, **masts** shall only be manufactured by a registered manufacturer.
- (b) For **masts** manufactured before 1 January 2026, the IODA equipment label may be placed on the forward side of the **mast**, between the **mast top point** and the upper edge of uppermost **limit mark**.
- (c) For **masts** manufactured from 1 January 2026, the IODA equipment label shall be placed on the forward side of the **mast**, its lower edge between 430 mm and 450 mm from the **mast top point**.

F.3.2 CONSTRUCTION

- (a) The **mast** shall be
- approximately circular in section; and
 - of uniform section above 50 mm from the **heel point**.

F.3.3 FITTINGS

(a) MANDATORY

- (1) The **mast** shall have either:
- two holes, in any direction in the horizontal plane; or
 - two eyes; or
 - one eye and one hole; or
 - two through-holes, which shall be in a horizontal plane.
- If eyes are used, they shall be permanently fixed.
- (2) Non-metallic reinforcement (bushing) may be used around these holes. For through-holes, the bushing may be continuous.
- (3) The **mast** shall have, in a suitable position, for the sprit, a cleat and one hole or one eye. A method of reinforcement of max. size 60 mm x 15 mm – may be used around the hole.
- (4) The **mast** shall have a cleat in a suitable position for securing the boom **vang**.
- (5) Heel **fitting**, length not exceeding 100 mm

(b) OPTIONAL

- (1) A wind indicator, which shall not have any sharp points. It may be fitted to the top of the **mast**. The mast may have a **fitting** (which need not be permanently fixed) for securing the wind indicator. Such a **fitting** shall be positioned within 150 mm below the **mast top point** and it shall have no sharp projections.
- (2) Mast head **fitting**
- length not exceeding 60 mm;
 - height of visible part not exceeding 10 mm.
- (3) A pin stop, which may exhibit a widening at its outermost point. With the exception of that widening, this pin shall not be more than 8 mm diameter. This pin shall be within 10 mm of the surface of the mast and shall have no sharp projections.
- (4) Wooden **masts** may be reinforced with a GRP or plastic collar which shall not extend more than 800 mm above the **heel point** and shall not increase the diameter by more than 4 mm.
- (5) Aluminum **masts** may be fitted with not more than two sleeves of GRP or plastic to allow it to fit a larger diameter mast thwart hole and mast step. Each sleeve shall be of uniform wall thickness and shall not extend along the **mast** for more than 50 mm.

(6) A toothed rack for the sprit halyard. The maximum dimensions of the toothed rack are:

- (i) Length: 150 mm
- (ii) Width: 20 mm
- (iii) Thickness: 3 mm
- (iv) Height of tooth: 10 mm

F.3.4 DIMENSIONS

	minimum	maximum
Mast length	-	2350 mm
Mast spar diameter	44,5 mm	45,5 mm
Upper edge of uppermost (through-)hole(s) or eye, from mast top point	20 mm	-
Upper edge of lowermost (through-)hole(s) or eye, from mast top point	120 mm	-
Limit mark width	10 mm	-
Lower edge of uppermost limit mark , from mast top point	610 mm	-
Upper edge of lowermost limit mark , from mast top point	-	635 mm
Pin stop, from mast top point	1670 mm	1690 mm

F.4 BOOM

F.4.1 MANUFACTURERS

- (a) From 1 January 2026, **booms** shall only be manufactured by a registered manufacturer.
- (b) For **booms** manufactured before 1 January 2026, the IODA equipment labels may be placed on the lower side of the boom between 100 mm and 150 mm from the inner end of the boom excluding jaws.
- (c) For **booms** manufactured as from 1 January 2026, the IODA equipment label shall be placed on the lower side of the **boom** between 100 mm and 150 mm from the inner end of the boom excluding jaws.

F.4.2 CONSTRUCTION

- (a) The **boom** shall be
 - approximately circular in section; and
 - of uniform section throughout.
- (b) For booms exceeding 2000 mm length, the **boom outer point distance** shall

be permanently marked by a scribed line or not less than two marks made with a centre punch.

F.4.3 FITTINGS

(a) MANDATORY

(1) Mainsheet attachment arrangement:

The method of attachment of the mainsheet or mainsheet block(s) to the **boom** is optional, provided the attachment points cannot slip along the **boom**.

The following arrangements, or any combination of attachments, are permitted:

- (i) A **span** may be attached to the **boom** by use of lacing eyes in a fixed position at the upper and/or lower side of the **boom**. Provided they cannot slip along the **span**, the use of multiple rings on the **span** is permitted.
- (ii) Strop(s) may be attached to the **boom** by use of lacing eyes in a fixed position attached to the upper side of the **boom**.

(2) Either the **boom** or the end cap shall have a hole or lacing eye.

(3) Outboard **boom** end, length not exceeding 100 mm

(4) Boom jaws (**fitting**):

- the type of boom jaws and jaws fitting is optional;
- fitting length not exceeding 100 mm;
- thickness of jaws not exceeding 35 mm;
- a rope may be fastened to the boom jaws or jaws **fitting** through two holes, and pass forward and over the pin stop (see F.3.3(b)(3)).

(b) OPTIONAL

(1) A cleat with no sharp projections, for securing an **outhaul**.

(2) A fixed stop or lacing eye at a fixed position, for attaching a boom **vang**.

F.4.4 DIMENSIONS

	minimum	maximum
Boom spar diameter	29,5 mm	55,5 mm
Variation of boom spar diameter, at any section	-	1 mm
Boom length, excluding the boom jaws	-	2057 mm
Outer point distance , for booms exceeding 2000 mm length	-	2000 mm
Limit mark width	10 mm	-
Forward edge of boom hole or boom lacing eye, from the boom outer limit mark	-	40 mm
Position of outhaul cleat from outer end of boom	400 mm	-
Boom vang fitting:		
- bearing edge of fitting attached to upper side of boom, from inner end of boom excluding boom jaws	-	200 mm
- outer edge of fitting attached elsewhere, from inner end of boom excluding boom jaws	-	200 mm

F.5 SPRIT

F.5.1 MANUFACTURERS

- (a) From 1 January 2026, **sprits** shall only be manufactured by a registered manufacturer.
- (b) For **sprits** manufactured before 1 January 2026, the IODA equipment label may be placed on the sprit between 1000 mm and 1100 mm from the lower end of the sprit.
- (c) For **sprits** manufactured as from 1 January 2026, the IODA equipment label shall be placed on the sprit between 1000 mm and 1100 mm from the lower end of the sprit.

F.5.2 MATERIALS

(a) OPTIONAL

- (1) Non-metallic protective material may be used on the sprit at the area where **sprit** and **mast** make contact. This material shall not exceed max. 150 mm length and 1,5 mm thickness.

F.5.3 CONSTRUCTION

- (a) The **sprit** shall be:
- approximately circular in section; and
 - of uniform section throughout.

F.5.4 FITTINGS

(a) MANDATORY

(1) Upper sprit end **fitting**:

- shall be of a type shown in the rigging plan; and
- its length shall not exceed 60 mm.

If the upper end **fitting** exhibits a widening after an initial narrowing, this widening shall not be in excess of 13 mm.

(2) A lower sprit end **fitting**:

- may be one of the **fittings** permitted at the upper end, or the sprit may be fitted with an eye, a hook, or it may have a hole through the **spar**; and
- its length shall not exceed 60 mm.

F.5.5 DIMENSIONS

	minimum	maximum
Sprit diameter	27,3 mm	27,7 mm
Sprit length	-	2286 mm
Eye, hook or hole at lower end of the sprit (if any), from lower end	-	60 mm

F.6 RUNNING RIGGING

F.6.1 MATERIALS

- (a) With exception of low friction rings, the use of titanium is prohibited.
- (b) Carbon fibre reinforced polymers are prohibited.
- (c) The use of wire is prohibited except for the **boom vang**, **sprit halyard** and strops on the **boom** for fitting mainsheet blocks.

F.6.2 CONSTRUCTION

- (a) The **mainsheet** system shall have a combination of low friction rings and/or blocks. Two blocks shall be attached directly to the **boom**. Each block shall not have more than 2 sheaves. The maximum obtained purchase shall be 5:1
- (b) A single part **vang** of rope and/or wire shall be fitted to the **boom**, which may be fitted with a handle or a plastic ball.

- (c) An **outhaul** shall be made of a rope not more than 1200 mm long. It may be adjustable. In this case it shall use no more than a 2:1 purchase; no blocks are allowed.
- (d) A **sprit halyard** made of:
- either a rope or wire rope loop, used in conjunction with a toothed rack; or
 - a **halyard** consisting of not more than two parts of rope or rope/wire combination, with no more than two single sheave blocks, or one block and one low friction ring to obtain no more than a 2:1 purchase. The way of attaching the blocks on the lower end of the **sprit** or on the **mast** is optional.
- The sprit **halyard** may be fitted with a handle or a plastic ball.
- (e) A span, if any, shall have no more than 100 mm clearance between the span and the boom, at any position along the **boom**.
- (f) No **running rigging** shall be allowed inside of hollow **spars**.

Section G – Sails

G.1 GENERAL

G.1.1 RULES

- (a) **Sails** shall comply with the **class rules** in force at the time of **certification**, except where otherwise stated.

G.1.2 CERTIFICATION

- (a) The **certification measurer** shall **certify sails** in the **tack** and shall sign and date the **certification mark**. The details shall be recorded on the **certificate** and the entry signed by the **certification measurer**.
- (b) **Sails** may be measured with battens inside the **batten pockets**.
- (c) Each **sail** first certified after 1 January 1990 shall have permanently fixed an officially numbered IODA sail button or sail label, attesting that the class fee has been paid, and located in the **tack**.

No sail shall be accepted for **certification control** without a sail button or sail label.

Sail buttons or labels shall not be transferred from one sail to another.

- (d) Labels on **sails** manufactured before 1 January 2026 shall be permanently glued to the sail with two lines of stitching across the label. Alternatively, sail labels shall be permanently glued to the **sail** and further secured with a rivet. **Sails manufactured before 1 January 2026 may carry an IODA equipment label at the tack, permanently glued to the sail and further secured with a rivet.**
- (e) **Sails** manufactured from 1 January 2026 shall carry an IODA equipment label at the **tack** attached under the **sail reinforcement** or secured with a rivet.
- (f) Sail labels shall be obtained from IODA by the sailmakers.

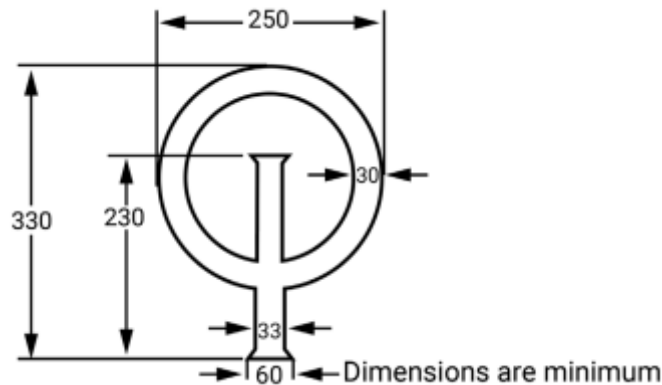
G.1.3 SAILMAKER

- (a) **From 1 January 2026, sails shall only be manufactured by a registered sailmaker.**
- (b) The thickness in mm of the **body of the sail** shall be indelibly marked near the **peak point** by the sailmaker together with the date and his signature or stamp.
- (c) The manufacturer of sail battens is optional.

G.2 MAINSAIL

G.2.1 IDENTIFICATION

- (a) The class insignia shall be the letter I and O and shall conform with the dimensions and requirements as detailed in the diagram.



G.2.2 MATERIALS

- (a) The **body of the sail** shall consist of the same **woven ply** throughout.
- (b) The **ply** fibres shall be of polyester.
- (c) **Stiffening:**
The construction material of sail battens is optional except that carbon fibre reinforced polymers are prohibited.
- (d) **Sail reinforcements** shall be made of **woven ply** of any thickness.

G.2.3 CONSTRUCTION

- (a) The construction shall be: **soft sail, single-ply sail**.
- (b) Edges of **secondary reinforcements** shall be fixed by a maximum of two lines of stitches or **bonding** agents.
Parallel or nearly parallel lines of stitching or **bonding** agent used elsewhere in the **secondary reinforcement** shall be more than 40 mm apart. If two rows of closely positioned stitching are used to fix the edge of the **secondary reinforcement** then any inner lines of parallel stitching shall be more than 40 mm distant from the inner line of edge stitching.
- (c) The colour of **tabling** is optional.
- (d) The thickness of the **body of the sail** shall be not less than 0,15 mm. Where in the construction of the **body of the sail** the cloth is of variable thickness, the thinnest part of the **sail** as measured by a micrometer with a spindle surface of $6,40 \pm 0,25$ mm diameter shall each be at least 9 mm x 9 mm square, and the thickness of the cloth shall be deemed to be that of the thinnest parts. **Sails** which are not so constructed shall cease to comply with **class rules** from 1 March 2005.

- (e) The **sail** shall have two **batten pockets** in the **leech**. Local widening for batten insertion (if any) shall be on the upper edge of the **batten pockets**. The outer end of the **batten pockets** shall be parallel to the **leech** at that point.

- (f) For each sail first certified after 1 May 2015, each **batten pocket patch** shall consist of two layers of **ply**. **Ply** different to the **ply** of the **body of the sail** may be used, but shall be of the same colour of the **body of the sail**.

For each **sail** first certified after 1 April 2020, these layers shall also be of circular shape.

- (g) The following are permitted: Stitching, glues, **tabling**, **seams**, tapes, bolt ropes, corner eyes or cringles, **batten pockets**, **batten pocket elastic**, **batten pocket patches**, **flutter patches**, one trapezoidal **window**, tell tales, IODA sail label and sailmaker's trade mark, and items as permitted or prescribed by other applicable rules.

Following materials are prohibited: carbon fibre reinforced polymers and titanium.

- (h) Wire or elastic cord shall not be used in the **sail**. Any bolt rope or **tabling** used to strengthen the **luff** or **head** of the **sail** shall be fastened to the sail through its entire length. If a bolt rope is enclosed in the **tabling**, it shall be sewn to the **sail** by visible stitches at those corners of the **sail** to which the rope extends. No bolt rope is permitted in the **leech** or **foot**.
- (i) There shall be 8 eyelets in the **foot** of the **sail**, including those at the **tack** and **clew**. There shall be 8 eyelets in the **luff** of the **sail**, including those at the **throat** and **tack**.
- (j) The **sail** shall have a sail measurement band on its **luff** (**luff** measurement band). This band, of a colour that strongly contrasts with the **sail**, shall be permanently fixed or marked on both sides of the **sail**. It shall be perpendicular to the edge of the **luff** of the **sail**, and shall start at its edge.

G.2.4 DIMENSIONS

	minimum	maximum
Leech length	-	2800 mm
Head length	-	1240 mm
Diagonal	2450 mm	2580 mm
Distance between half luff point and half leech point	-	1700 mm
Throat point to mid foot point	-	2130 mm
Luff length	-	1730 mm
Width of luff measurement band	5 mm	-
Length of luff measurement band	60 mm	-
Upper edge of luff measurement band to throat point	-	600 mm
Thickness of woven ply of the body of the sail	0,15 mm	-
Primary reinforcement: from sail corner measurement points	-	205 mm
Secondary reinforcement: from sail corner measurement points	-	615 mm
Batten pocket patches at inner end of each batten pocket :		
smaller:	-	150 mm
larger:	160 mm	200 mm
Flutter patches	-	150 mm
Tabling width	-	40 mm
Seam width	-	15 mm
Trapezoidal window area	-	0,1 m ²
Window to sail edge	150 mm	-
Batten pocket length:		
uppermost pocket:		
outside	-	460 mm
lowermost pocket:		
outside	-	550 mm

	minimum	maximum
Batten pocket width: outside	-	40 mm
Peak point to intersection of leech and lower edge of uppermost batten pocket	900 mm	1000 mm
Peak point to intersection of leech and lower edge of lowermost batten pocket	1850 mm	1950 mm
Deviation from straight line between peak point and upper corner of uppermost batten pocket	- 10 mm	+ 5 mm
Deviation from straight line between the lower edge of the uppermost batten pocket and the upper edge of the lowermost batten pocket	- 10 mm	+ 5 mm
Deviation from straight line between the lower corner of lowermost batten pocket and clew point	- 10 mm	+ 5 mm
Deviation from straight line between the intersection of the leech and the lower edge of the uppermost batten pocket and the clew point	- 5 mm	+ 20 mm
On-center spacing luff eyelets	230 mm	260 mm
On-center spacing foot eyelets	270 mm	300 mm
Foot irregularity		15 mm

PART III – APPENDICES

Section H – title

H.1 TITLE

H.1.1 SUBTITLE

(a) Text

Official plans:

The following are the current official plans:

New 95 GRP Plans	March 1995, amended March 1996
Traditional wood Plans	March 1997
Wood/Epoxy Plans	March 1997
Rigging Plan	March 1991, amended 1994
Foil Plan	Obsolete
Sail Plan	March 1994

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