



# INTERNATIONAL **505** CLASS RULES

2014



The 505 Class was designed in 1954 by John Westell and was adopted as an ISAF International Class in 1955.

## History of the Class.

The development of the 505 Class began in 1953 at La Baule, France where the IYRU<sup>1</sup> organised trials to select a fast two-man centreboard dinghy for the Olympic Games. One of the boats that took part was "Coronet" designed by an Englishman, John Westell.

Although another boat was selected for the Olympics, "Coronet" had impressed the Caneton Association, which at that time was the most important small boat racing body in France. It asked John Westell if he could modify the design of Coronet to suit their needs. Its length was reduced from 5.48m (18ft) to 5.05m (16ft 6in) and the sail plan reduced to 14m<sup>2</sup>. By a decision showing remarkable foresight, the Caneton Association agreed to adopt the new design at its AGM in Paris in January 1954. The 505 was born!

With a strong organisation already in place in France, the 505 started life on an international basis. In 1955 the IYRU gave the class international status, and the class grew strongly, initially in France and the United Kingdom, but quickly thereafter in many other parts of the world. The first World Championship was held in 1956 in La Baule.

The sail plan and hull shape are tightly controlled by the measurement rules, but the rules allow considerable freedom in the rigging, internal layout and size and shape of the foils. This allows the boat to be set up in many ways to suit different sailors. Apart from the mast spar, which currently have to be made from aluminium or wood, there are no restrictions on the materials that can be used. This has enabled the class to evolve and take advantage of many of the improvements in technology over the sixty years since it was first designed. For example, the original hulls were built in cold moulded plywood; today new boats are built in reinforced plastic, with many types of sophisticated laminates. Carbon fibre, Kevlar®, epoxy resins and other modern materials mean that today's boats are significantly stronger than the original boats and have long competitive lives.

A major change was made in 2001 when, after trials over two years, the class voted to adopt a larger spinnaker, which has resulted in a significant improvement in the performance of the boat off the wind.

By the year 2014, after 60 years in existence, over nine thousand 505s have been registered.

During this time fleets have been established in eighteen Countries on four Continents.

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<sup>1</sup> The predecessor body to ISAF

## Instructions on use of the Measurement Book.

(This book was printed in 2014.)

The book consists of three sections.

- The first part contains a copy of the Class Rules B (the “Measurement Rules”).
- The second contains the Measurement Diagrams.
- The third contains the Measurement Form with instructions to Measurers.

Before measurement commences the Measurer should check for any later changes to the Class Rules B. Current versions are available on the class website.

The Measurement Form is provided in triplicate in three different colours.

All three copies should be completed by the Measurer.

On completion of measurement the Owner should detach the “**pink**” and “**yellow**” copies from the book.

The “**pink copy**” shall be returned to the International Measurer who will check the form.

If all is satisfactory, the boat is registered as a 5O5 and the International Measurer will issue a “International Measurement Certificate” (**Certificate**) to the Owner.

The “**yellow copy**” should be sent to the National 5O5 Association to which the Owner belongs, for its own records.

This book provides the Owner with a record of the first measurement taken of the hull and spars. It is recommended that when the “Certificate” is received that it is stuck inside the back cover of the Measurement Book for safe-keeping.

The book and “Certificate” should be passed to a new Owner when a boat is sold.

If the boat is re-weighed in accordance with Rule B 5.8.5, the Measurer shall record the revised weight on the “Certificate” and also advise the International Measurer of the change so the Class records may be updated.

Sails do not have to be measured in order for the boat to be granted a Certificate. However, attention is drawn to Rule B 4.5, which requires all sails to be certified by an approved measurer and to carry a certification mark.

It is the Owner’s responsibility to ensure that the boat complies with these Rules at all times when racing.

## 505 CLASS RULES - B - THE MEASUREMENT RULES

### 1.0 General

- 1.1 The 505 is a racing dinghy of 5.05 metres L.O.A. designed by John Westell. It is an International Class recognised by the International Sailing Federation ("ISAF").
- 1.2 The administering authority is the International 505 Class Yacht Racing Association (the "International Association"), subject to its Constitution and subject to the rules of the ISAF.
- 1.3 The official language of the class is English and in case of dispute over translation the English text shall prevail. The word "shall" is mandatory and the word "may" is permissive.
- 1.4 The ISAF Equipment Rules of Sailing 2013-2016 (ERS) apply, except as varied by these **class rules** ("these Rules"). 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 racing rules of sailing (RRS) applies
- 1.5 The Class is measurement controlled. All **boats** shall be built, measured and registered in accordance with these Rules. These Rules comprise this text and the Measurement Diagrams. In the event of a conflict, the written text shall prevail.
- 1.6 Any **boat** having a **certificate** or any **sail** bearing a **certification mark** dated prior to the date of these Rules may be measured in accordance with the Rules prevailing at the date when the **boat** or **sail** was first measured unless these Rules state to the contrary or unless the **boat** or **sail** has been altered, modified or renewed after the date of any relevant change to these Rules. Any equipment which is altered, modified or renewed shall conform to the current Rules.
- 1.7 Neither the designer nor the International Association nor the ISAF nor any National Association accepts any legal responsibility in respect of these Rules or the designer's drawings or any claims arising from them.

## 2.0 Fees

- 2.1 Upon completion of a new **hull**, the builder shall apply to the International Association for a sail number.  
The application shall be accompanied by a fee determined from time to time by the International Association.  
This registration fee will include the designer's royalty, the ISAF building plaque and a set of measurement forms.

## 3.0 Registration

- 3.1 Sail numbers are issued by the International Association upon receipt of the registration fee. Sail numbers shall be issued in consecutive order.
- 3.2 Registration of a **boat** as an International 505 is completed by satisfactory completion and return of the Measurement Forms to the International Association and the issuing of a **certificate**.
- 3.3 For a boat to be eligible for *racing*, it must comply with these Rules and have a valid **certificate**, and its Owner and Helmsman shall be members of the International Association.

## 4.0 Certification

- 4.1 An approved Measurer is either an **official measurer**, or a person appointed by the International Association to carry out **certification control**. The **certification authority** is the International Association. An ISAF Member National Authority may appoint one or more persons at a sailmaker as an approved sail measurer to measure and **certify sails** produced by that manufacturer in accordance with the ISAF In-house Certification Guidelines.
- 4.2 **Certification control** shall be carried out by an approved Measurer using the documents supplied by the International Association, namely these Rules and the measurement forms (including the instructions to Measurers), and the official templates.
- 4.3 Upon receipt of satisfactorily completed documentation signed by an approved Measurer, the International Association may issue a **certificate**.  
Sails do not have to be included for a **certificate** to be issued to a **boat**.
- 4.4 In addition to the particulars required by the measurement forms, the measurer shall report on the forms anything which he considers to be a departure from the intended nature and design of the **boat** or to be against the general interest of the Class. In exceptional cases the International Association may grant dispensation and issue a certificate. Such dispensation shall be recorded on the measurement form and the **certificate**.

- 4.5 Sails must be **certified** by an approved Measurer and carry a **certification mark** next to the tack or, in the case of spinnaker, next to the head.
- 4.6 It shall be the owner's responsibility to ensure that the boat complies with these Rules at all times. Replacement spars and sails shall be **certified** before use.
- 4.7 Re-measurement may be ordered by the International Association or a National Association at any time.
- 4.8 The **certification authority** shall retain the original documentation upon which the current **certificate** is based.

## 5.0 The Hull

- 5.1 Materials and methods of construction are not restricted except as provided by these Rules. The designer's drawings show a method of constructing in moulded plywood.

## 5.2 Hull Shape

- 5.2.1 The hull shape shall conform to the designer's drawings and the offsets annexed within the tolerances specified by the measurement diagrams and these Rules.
- 5.2.2 Hull moulds shall be checked by reference to plugs, moulds and production hulls before general use and after any modifications. Any builder constructing a new mould shall inform the International Association that it conforms to these Rules. The International Association may check moulds at any time.
- 5.2.3 Station 11 is defined as the plane at right angles to the base line shown in the measurement diagram and passing through the aftermost point of the **hull**, excluding rudder fittings. The hull **datum point** is the point on the **hull** centreplane where the outer surface of the keel band would, if projected, intersect Station 11, ignoring any actual rounding of the keel band. Other measurement stations are planes parallel to Station 11 at the specified distance from it.
- 5.2.4 No part of the after edge of the **hull** shall be more than 7.5mm from Station 11. No part of the after end of the seat-tank shall be more than 20mm forward of the after edge of the **hull**. The design of the transom is free in other respects.

## 5.3 Keel Band

5.3.1 Along the centreline from stem to transom a flat keel-band shall project not less than 3mm and not more than 4.5mm from the surface of the **hull** (with keelband removed) and may be rounded to a radius of not more than 3mm. At the sides of the centreboard slot the section may be 'half-round' instead of flat.

Keel band widths shall be within the following limits:

	min (mm)	max (mm)
Transom	30	75
Station 9	65	75
Station 6	65	75
Station 3	25	35

Forward of Station 3 the keel band may be faired into the hull.

#### 5.4 **Foredeck**

5.4.1 The after edge of the foredeck (which need not be straight between the centreline and the gunwale) shall lie within the tolerances set out in the Measurement Diagram. The after edge of the foredeck at any point along its length shall be at or above the "top of gunwale". The "top of gunwale" is defined as being a point 20mm inside the extreme edge of the **hull** regardless of construction.

5.4.2 Forward of the most forward position of the after edge of the foredeck the only apertures permitted are:

- Spinnaker chute
- A combined area of not more than 5000 mm<sup>2</sup> for rigging and controls
- One or two areas not exceeding 120,000 mm<sup>2</sup> each, no part of which shall be further than 3486mm from Station 11, or within 100mm of the **hull** centreplane, or within 250mm of the "top of gunwale".

#### 5.5 **Forward Watertight Compartments and Seat-Tanks**

5.5.1 The forward compartment and the seat-tanks shall be separate watertight compartments.

5.5.2 The watertight bulkhead and seat-tanks shall conform to the drawings within the tolerances specified in the Measurement Diagram.

5.5.3 The forward compartment may include one spinnaker chute only, the volume of which shall not exceed 20% of the total volume of the

forward compartment. The construction of the spinnaker chute shall not impair the watertight integrity of the forward compartment.

- 5.5.4 The watertight diagonal bulkheads at the forward ends of the seat-tanks shall lie at or forward of the after edge of the foredeck.

## 5.6 Centreboard Case and Thwarts

- 5.6.1 The internal dimensions of the centreboard case shall conform to the tolerances specified in the Measurement Diagram. No temporary or movable insert in the centreboard case is permitted.

- 5.6.3 Thwarts or other stiffening or reinforcing members may be fitted across the hull within 3581mm of Station 11. These members shall not be constructed in such a manner as to form a second cockpit floor or an additional buoyancy chamber.

## 5.7 Not in use

## 5.8 Weight

- 5.8.1 For **certification control**, **boats** shall be weighed in a dry condition after an uninterrupted period of two weeks without having touched water.

- 5.8.2 The sailing weight of the **boat** without **sails** and battens in dry condition (hereafter referred to as 'sailing weight') shall not be less than 127.4kg. Fittings and components of exaggerated weight and artificially heavy areas construction are not permitted: examples include use of lead or other heavy metals, except for **corrector weights** permitted under Rule B-5.8.3.

- 5.8.3 If the sailing weight is less than 127.4kg, the difference, without limit, shall be made up by metal **corrector weights** fixed against the centreboard case or spine and visible when viewed from a standing position next to the **boat**, half between 1100mm and 1500mm and half between 2900mm and 3500mm from Station 11, such **corrector weights** to be retained for the life of the **boat** or until the **boat** is reweighed in accordance with Rule B - 5.8.5.

- 5.8.4 Each corrector weight shall be hard stamped in a visible place with its weight in kilograms to the nearest 0.1 kilograms and a serial number to identify each corrector weight and the total number of **corrector weights** used in the **boat**.

- 5.8.5 **Boats** may be reweighed at any time by an approved Measurer providing that immediately prior to re-weighing, the **boat** has not

touched water for a period of at least two weeks. The sailing weight and the number and weight of **corrector weights** shall be recorded on the certificate by the Measurer. The **corrector weights** referred to in Rule B - 5.8.3 may only be removed or reduced at a reweighing commissioned by the Owner under this paragraph and such reweighing may only take place at intervals greater than 12 months.

## 5.9 Sail Number

5.9.1 The sail number of the **boat** shall be clearly carved or impressed on the transom, spine, or aft end of the centreboard case in numbers of 18mm minimum height.

5.9.2 The ISAF building plaque bearing the registered sail number shall be fixed on the transom, spine or aft end of the centreboard case.

## 6.0 Centreboard, Rudder and Tiller

6.1 One **rudder** and one **centreboard** only shall be used at anyone time. At all times when sailing, both sides of the **centreboard** and **rudder** shall have similar profiles. Leeboards, **daggerboards**, hydrofoils, **trim tabs**, fences and similar devices are prohibited.

6.2 The **centreboard** shall fit within the centreboard case not extending below the bottom of the **hull** when fully raised. The trailing edge may project above the centreboard case top when in the raised or partly raised position. No part of the leading edge which is more than 300mm from the tip and is capable of protruding below the **hull** shall be capable of being raised more than 200mm above the bottom of the **hull**. No part of the **centreboard** shall be capable of protruding more than 1450mm below the **hull**.

6.3 The **rudder** shall be hung at the transom and no part of the **rudder** assembly shall pass through the skin of the **hull**. The tiller may be shipped through a port in the transom or over the top.

## 7.0 Spars

### 7.1 General

7.1.1 The object of these Rules is to maintain the sail plan of the Class to substantially the same design, whilst giving owners freedom to arrange the **rigging** as they wish.

7.1.2 A **boat** shall not have facilities for setting more than one **mainsail**, one **headsail** and one **spinnaker**. No changes of **sail** are permitted during a race.

7.1.3 Except for fittings, **the mast spar** shall be constructed solely either from aluminium alloy containing not less than 90% by weight of aluminium or from wood. Construction is otherwise unrestricted.

## 7.2 Mast

7.2.1 The **mast** may be stepped on the deck or into the **hull**. With the **mast spar** perpendicular to the base line, the after side at deck level shall not be less than 3048mm and not more than 3202mm forward of Station 11. The **mast spar** may be fixed or rotating. No dimension of the **mast spar cross section** shall exceed 102mm.

7.2.2 A maximum of 30mm **mast spar curvature** is permitted.

7.2.3 **Limit marks** not less than 10mm in width shall be placed round the **mast** at the following three positions measured with the **mast** standing perpendicular to the baseline.

- Deck **limit mark**: upper edge level with the top of the deck. - tolerance 1 mm (**mast datum point**).
- **Lower limit mark**: upper edge not less than 381mm above the **mast datum point** (lower point).
- **Upper limit mark**: lower edge not more than 6858mm above the **mast datum point** (upper point).
- The **top point** of the **mast spar** shall be not more than 7011mm above the **mast datum point**.

7.2.4 The **spinnaker hoist height** shall be not more than 5955 mm nor less than 5054 mm. No rigidly fixed point for attachment of the block, sheave or fairlead shall be more than 35 mm from the surface of the **mast spar**.

7.2.5 The highest point of entry onto the block, sheave or fairlead for the **headsail** halyard shall not be more than 4750mm and not less than 4648mm above the **mast datum point**. A prolongation of the **luff** of the **headsail** when set shall cut the fore-side of the **mast** between these limits.

7.2.6 These measurements apply to **masts** whether fitted with mastjacks or otherwise. At all times when sailing, an extension of the upper surface of the deck shall intersect the **mast** at the upper edge of the deck **limit mark**.

## 7.3 Boom

7.3.1 No dimension of the **boom spar cross section** shall exceed 102mm.

7.3.2 A maximum of 25mm **boom spar curvature** is permitted.

7.3.3 An **outer limit mark** not less than 10mm in width shall be placed around the **boom spar**. The **outer point distance** shall not exceed 2858mm.

7.3.4 The overall length of **boom** from the aft edge of the **mast spar** to outer end of **boom** shall not exceed 3308mm.

7.3.5 The Boom shall be constructed of materials as required for Masts under 7.1.3. Carbon Fibre Composite material is permitted.

## 7.4 Spinnaker Pole (s)

- 7.4.1 The **spinnaker pole(s) length** shall not exceed 2516mm. The **spinnaker pole fitting projection** shall not exceed 50mm.
- 7.4.2 Spinnaker Poles shall be constructed of materials as required for Masts under 7.1.3. Carbon Fibre Composite material is permitted.
- 7.4.3 Twin Spinnaker Poles are permitted.

## 8.0 Sails

### 8.1 General

- 8.1.1 Sails shall be of **soft sail** construction, otherwise the choice of **sail** material is optional.
- 8.1.2 Stretching after measurement resulting in the maximum dimensions being exceeded is not permitted and continued conformity with Class Rules is the responsibility of the owner.
- 8.1.3 No **sail** shall have a hole or aperture other than the normal reefing and attachment points.
- 8.1.4 **Sail reinforcement** is not restricted.

### 8.2 Mainsail

- 8.2.1 The **mainsail** shall conform with the Class Rules and the measurement diagrams, except that a **sail** smaller in any dimension except batten position is allowed.
- 8.2.2 The **luff** shall be secured to the **mast spar** over at least 80 per cent of its length.
- 8.2.3 The following dimensions, including boltropes where fitted, shall not be exceeded:
- |  |        |
|--|--------|
| • <b>Top width</b>   | 127mm  |
| • Width at <b>upper leech point</b> 325mm from <b>head point</b> | 270mm  |
| • <b>Three-quarter width</b>                                     | 1120mm |
| • <b>Half width</b>  | 1950mm |
| • <b>Leech length</b>  | 6960mm |
- 8.2.4 The **mainsail** shall have not more than four battens in the **leech**. At the leech, the centre of the top **batten pocket** shall be between 1450mm and 1550mm from the **head point**, and the centre of the bottom **batten pocket** shall be between 1250mm and 1490mm from the **clew point**. No **batten pocket** shall be located less than 1000mm from any other **batten pocket**. No batten or **batten pocket** shall exceed 1180mm in length
- 8.2.5 The Class insignia to be displayed on the **mainsail** shall be in accordance with the shape and tolerances shown in the Measurement Diagram.

### 8.3 Headsail

8.3.1 The **headsail** shall conform to the official rules and diagrams, except that a **sail** smaller in any dimension except batten position is allowed.

8.3.2 The leech shall not extend beyond a straight line from the **aft head point** to the **clew point**.

8.3.3 The following dimensions shall not be exceeded:

- **Luff length** 4510mm
- **Foot length** 2287mm
- **Leech length** 4000mm
- **Top width** 40mm

8.3.4 Not more than three battens shall be used in the **leech** of any **headsail**. The outer ends of the battens shall be located within 102mm of marks dividing the **leech** into four (if three battens) or the appropriate number of equal parts. Not more than one batten, part of which shall be within 50mm of the centre, is permitted in the **foot**. No batten or **batten pocket** shall exceed 305mm in length and 51mm in width.

8.3.5 No part of the **foot** shall lie outside a measurement taken in the following way:

Lay out the **headsail** on a flat surface.

Fold the **tack** onto the clew and smooth the **headsail** to find the "intersection point" where the **luff** is intersected by the fold from the centre of the **foot**.

The measurement is the distance taken from the "intersection point" to the **tack** and the **clew**. No part of the **foot** shall lie at a greater radius from the "intersection point" with all wrinkles removed from the **sail** on the line of measurement.

8.3.6 A sleeve **luff** may be made to enclose the forestay but the width of such a sleeve shall not exceed 76mm.

8.3.7 An extension of the **headsail luff** when set shall cut the centreline of the deck between the stemhead and a point 400mm abaft the stemhead.

8.3.8 There shall be a window in the lower part of the **headsail** of a minimum size of 0.15m<sup>2</sup>.

### 8.4 Spinnaker

8.4.1 The **spinnaker** shall be a symmetrical three-cornered **sail** in accordance with the Class Rules and Measurements Diagrams except that a **sail** smaller in any dimension is allowed.

8.4.2 The following dimensions shall not be exceeded:

- **Leech length** 6000mm
- **Foot median** (head point to mid foot point) 7096mm
- **Foot length** 4500mm
- **Half width** 4500mm

8.4.3 RRS Appendix G paragraph 1.3(d) is deleted and replaced with:

"National letters and sail numbers are not required on the spinnaker."

## 9.0 Materials

9.1 Except where prescribed by these rules, either directly or by inference, there are no restrictions on the use of any materials in construction.

9.2 The use of particular materials may be prohibited or limited:

9.2.1 On the proposal of at least two National Associations and passed by a two-thirds majority of those attending the international Annual General Meeting and entitled to vote on changes on these rules as prescribed by the International Constitution, and

9.2.2 If such proposal is approved by the International Rules Committee and the ISAF.

9.3 Such prohibition or limitation will continue either

9.3.1 For such period from ISAF approval and as may be prescribed being not less than 1 year nor more than 3 years when it shall lapse unless renewed by the procedure in Rule B-9.2.1, or

9.3.2 until a permanent change is made to these Rules in accordance with the International Constitution either to incorporate such a prohibition or limitation or to make another provision which is inconsistent with it.

9.4 The prohibition or limitation may be expressed to apply to all parts of a **boat** when the prohibition or limitation comes into force. Such prohibition or limitation shall not apply to hulls completed before it comes into force.

## 10.0 Buoyancy

10.1 At measurement the measurer shall use his best endeavours to determine the integrity of the watertight compartments, to satisfy himself that they are tight.

10.2 The owner shall maintain the integrity of the watertight compartments in an efficient condition and the Measurement Certificate will automatically become invalid should he fail to do so.

## 11.0 Equipment

11.1 Devices which indicate remotely or transmit or correlate data about wind direction, wind speed, **boat** speed or location shall be prohibited.

## 12.0 Crew and Weight of Clothing and Equipment

12.1 The **crew** shall consist of two people.

12.2 Only one person may be suspended outboard from **spars** or **rigging**. No device attached to the **hull** and projecting outboard beyond the line of the gunwale shall be used.

12.3 A competitor's clothing and equipment shall not weigh more than 10 kilograms, excluding a hiking or trapeze harness and clothing (including footwear) worn only below the knee. In all other respects, the provisions of *RRS 43* shall apply.

## 13.0 Propulsion

13.1 In accordance with *RRS 86.1(c)*, *RRS 42.3(c)* is not applicable and the following Class Rule is substituted:

"Except on a beat to windward, when surfing (rapidly accelerating down the face of a wave) or planing is possible, the **boat's crew** may pull any **sail** in order to initiate or maintain surfing or planing, but not more than three repeated pulls and releases of the **sail** may be made for each wave or gust of wind."

## 14.0 Advertising

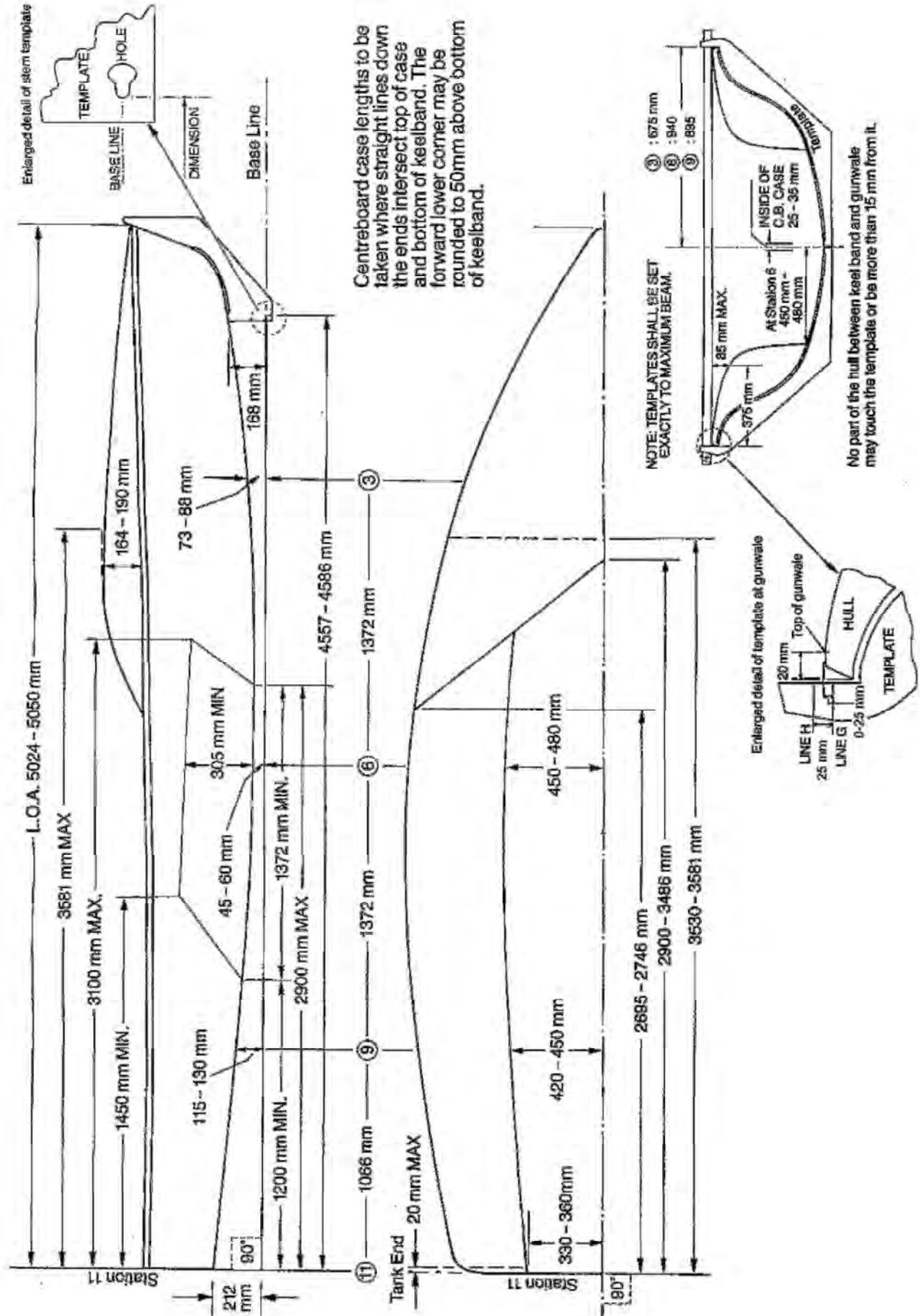
14.1 Category C advertising in accordance with ISAF regulation 20.3.1(b) is permitted.

## 15.0 Temporary Rules

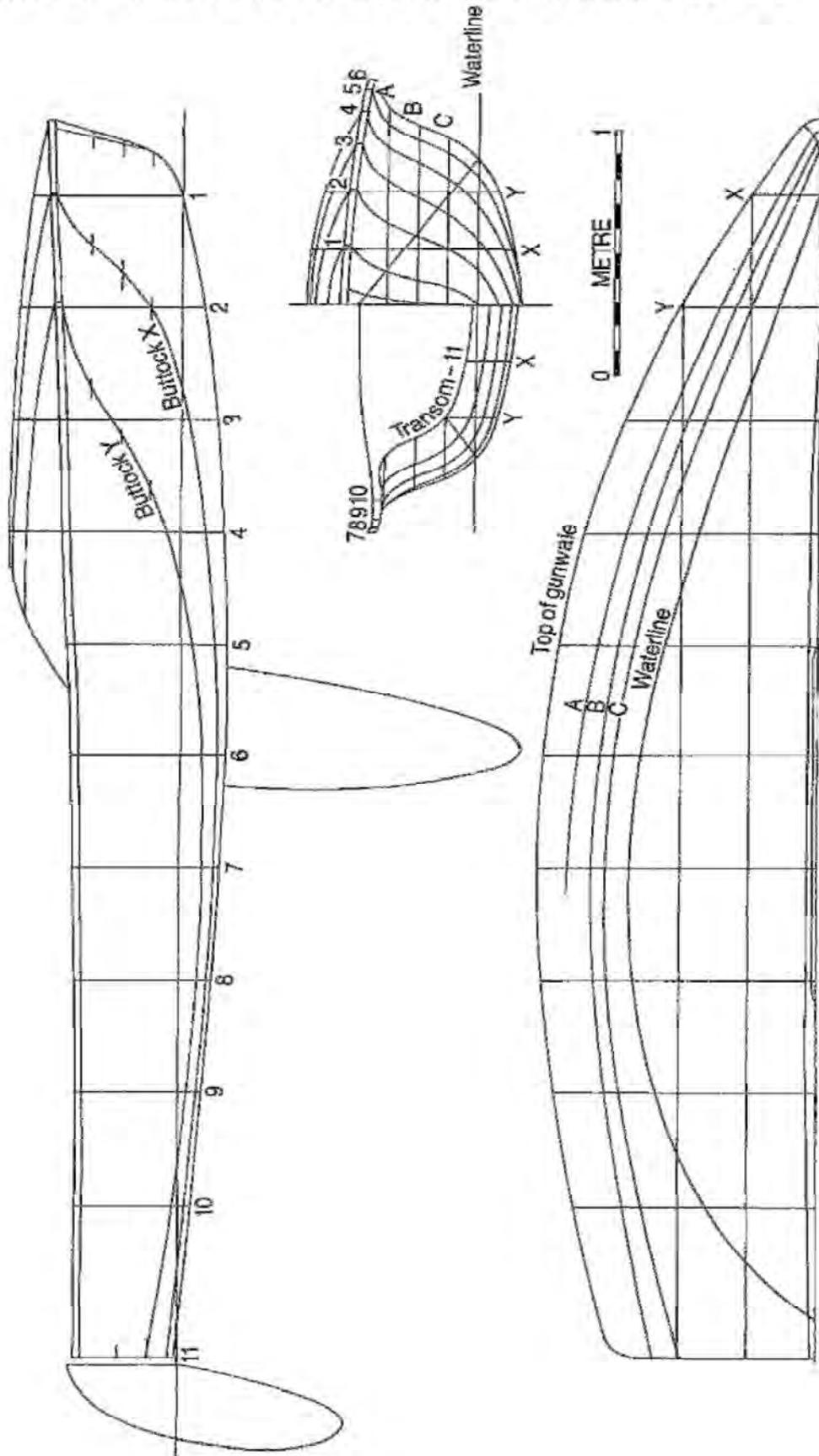
## 16.0 Effective Date

16.1 These **class rules** are effective from 1st August 2014.

# Hull Measurement Dimensions

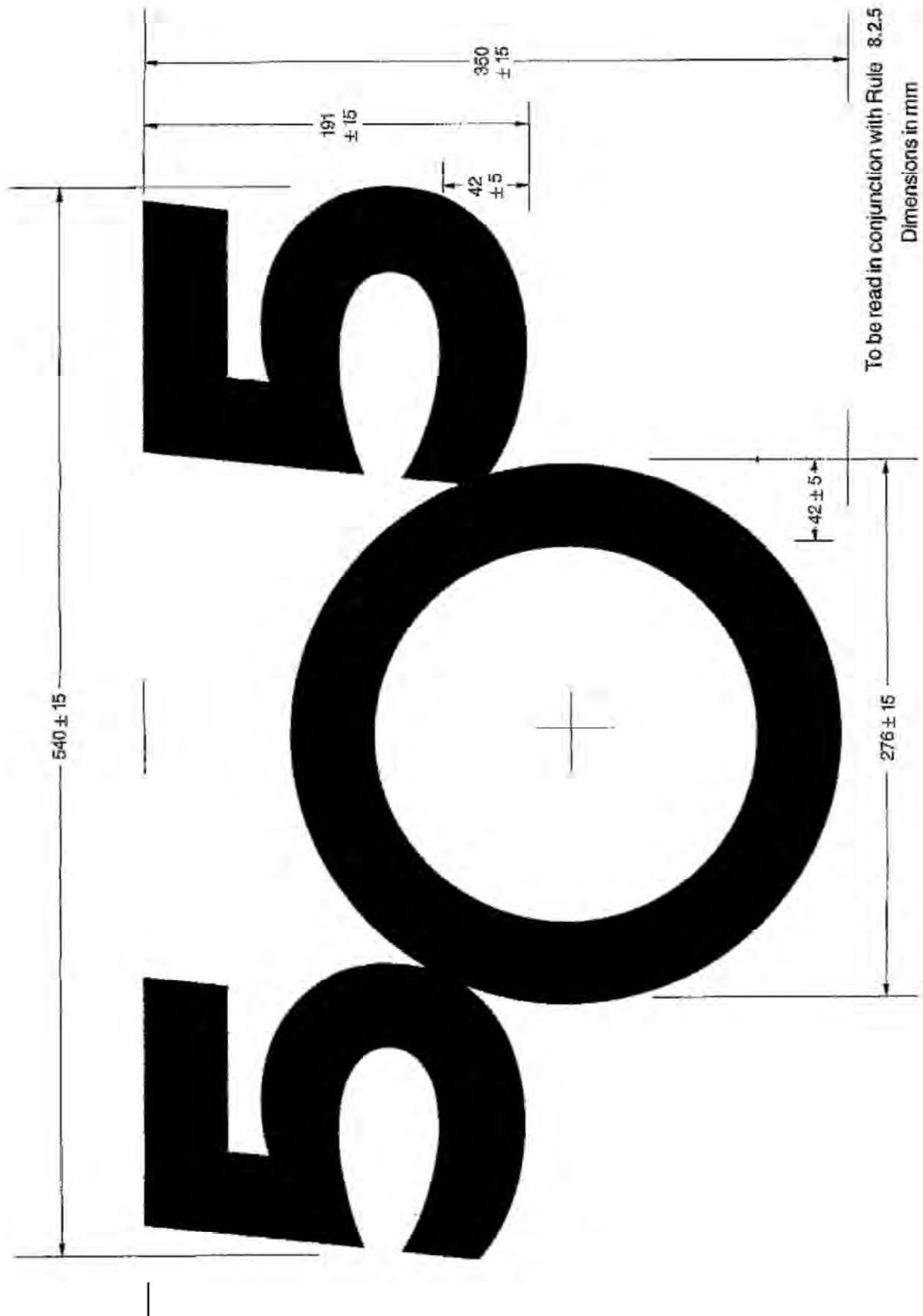


### Position of Measurement Stations and Points



*International 505 Class Association*

# Class Insignia Dimensions



To be read in conjunction with Rule 8.2.5  
Dimensions in mm

# 505 MEASUREMENT FORM

Boat No

## GENERAL

The object of measuring boats of the International 505 Class is to ensure that all hulls, spars, sails and equipment conform to the Class Rules. This form shall be used in conjunction with the Class Rules, the Measurement Diagrams and the ISAF Equipment Rules of Sailing. In the event of a conflict the Class Rules shall prevail. This form may only be completed by an **approved measurer**.

The actual dimension of each item shall be entered in the column provided. Any measurement outside the permitted limits should be circled and also listed as an "exception" on the final page of the form.

Only templates approved by the International Association shall be used. The use of half templates is not permitted. A set of templates comprises:

- Stem template for the curved part of the stem and for supporting the forward end of the base line: (7.5mm oversize for curved part)
- Hull template station 3: (7.5mm oversize)
- Hull template station 6: (7.5mm oversize)
- Hull template station 9: (7.5mm oversize)
- Transom template: (3.75 mm undersize)

Hull shapes shall be fair, smooth and continuous and any deviation shall be reported on the measurement form. "Bumping" at measurement points is not permitted. Any apparent lack of fairness will render the boat liable to measurement at intermediate stations, 1, 2, 4, 5, 7, 8 and 10.

Should it be impossible to fit a template to the hull at the correct station because the hull is too large, the Measurer shall attach a sketch showing the nearest point at which the template will fit and giving the closest possible estimate of the error at the correct station.

## HULL MEASUREMENT

1 Enter details of templates used for measurement:

Origin and markings: \_\_\_\_\_

Date: \_\_\_\_\_

Material: \_\_\_\_\_

Date Surveyed: \_\_\_\_\_

- 2 Invert the hull with the weight taken on padding at the transom and on the foredeck at the watertight bulkhead. Ensure that the hull is level and not twisted. Set up the stem template with the straight part lying on the straight part of the stem and the tab resting on the keel band. Erect a post vertically at the stern. From a point 212mm away from the keel band, stretch a taut line (or set up a horizontal beam) to the aft inner edge of the datum hole in the stem template 168mm above the keel band. This is the base line. Construct Station 11, defined as the plane that is at right angles to the base line and which passes through the aftermost point of the hull, excluding normal rudder fittings. If necessary, reposition the post at the hull datum point in accordance with rule 5.2.3 and reposition the base line and Station 11. Note the horizontal and vertical planes of Station 11 to facilitate setting up again when the hull is the right way up.
  
- 3 Using a batten laid across the aft end of the hull at Station 11, mark the hull port and starboard at 1066mm (Station 9) 2438mm (Station 6), 3486mm (for measurement 11.1) and 3810 (Station 3). At these points mark “Top of Gunwale”, which is defined as being the top of the hull at a point 20mm inside the extreme edge of the hull, regardless of the actual construction.

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
4		<b>Measure the following dimensions parallel to the base line</b>			
4.1	5.2	Station 11 to aft end of centreboard case	1200mm	_____	
4.2	5.2	Station 11 to forward end of centreboard case		_____	2900mm
4.3	5.2	Total length of centreboard slot	1372mm	_____	
4.4	5.2	Station 11 to the inner edge of the datum hole on the stem template	4557mm	_____	4586mm
4.5	5.2	The overall length of the hull including stem fittings but excluding rudder fittings	5024mm	_____	5050mm
4.6	5.2	Measure the vertical distance between the base line and the keel band at Stations 3, 6, and 9			
		Station 3	73mm	_____	88mm
		Station 6	45mm	_____	60mm
		Station 9	115mm	_____	130mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
<b>5</b>		<b>Stem Template</b>			
5.1	5.2	Stem Template. Check that the projected line of the deck falls between the lines on the template		Yes / No	
5.2	5.2	Check that no part of the curved portion of the stem either touches or is more than 15mm away from the template. Give the actual dimensions			
		Maximum		_____	15mm
		Minimum	Zero	_____	
<b>6</b>		<b>Hull Templates</b>			
6.1	5.2	Assemble the templates for Stations 3, 6 and 9. Set the width of each template exactly to the measurement for maximum beam and measure the width.			
		Station 3	1350mm	_____	1350mm
		Station 6	1880mm	_____	1880mm
		Station 9	1790mm	_____	1790mm
6.2	5.2	Apply templates to Stations 3, 6 and 9 with the centre of the template projections touching the centre of the keel band. Check that the outside of the hull including the rubbing strake neither touches nor lies more than 15mm from it. Give the actual maximum and minimum dimensions.			
		Station 3 Maximum		_____	15mm
		Station 3 Minimum	zero	_____	
		Station 6 Maximum		_____	15mm
		Station 6 Minimum	zero	_____	
		Station 9 Maximum		_____	15mm
		Station 9 Minimum	zero	_____	
6.3	5.2	Check that a horizontal line through the "Top of Gunwale" lies between the two lines marked "G" and "H" on the arms of the template, Measure the distance from line "G"			
		Station 3	zero	_____	25mm
		Station 6	zero	_____	25mm
		Station 9	zero	_____	25mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
<b>7</b>		<b>Transom and Transom Template</b>			
7.1	5.2	Check that no part of the after edge of the hull is more than 7.5mm from Station 11. Measure the greatest distance.		_____	7.5mm
		<b>The base line may now be dismantled</b>			
7.2	5.2	Apply transom template to the hull at Station 11 with the tabs on the junction of Station 11 and the hull (disregarding the keel band). This is the point where the projections of the surfaces meet, disregarding any actual rounding off.			
7.3	5.2	Check that no part of the outside of the after end of the hull falls within the template outline or more than 7.5mm outside the template outline.			
		Measure the least distance from the template:	Zero	_____	
		Measure the greatest distance from the template:		_____	7.5mm
7.4	5.2	Check that no part of the after edge of the seat tank is more than 20mm forward of the aft edge of the hull. Measure the greatest distance.		_____	20mm
<b>8</b>		<b>Keel Band and Centreboard Case</b>			
8.1	5.3	Measure the width of the keel band			
		At station 3	25mm	_____	35mm
		At station 6	65mm	_____	75mm
		At station 9	65mm	_____	75mm
		At transom	30mm	_____	75mm
8.2	5.3	Measure maximum thickness of keelband			
		Maximum		_____	4.5mm
		Minimum	3mm	_____	
8.3	5.3	Measure the internal width of the centreboard case	25mm	_____	35mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
<b>9</b>		<b>Centreboard</b>			
9.1	6.2	Check centreboard fits within the case, not extending below the bottom of the hull when fully raised			
9.2	6.2	Fully extend centreboard. Mark the leading edge at the point 300mm from the tip. Also mark the leading edge at the point where it emerges from the hull. Progressively retract the centreboard. For all positions of the centreboard, check that no point on the leading edge between the two marks is capable of being withdrawn more than 200mm inside the hull. Measure the maximum distance from the bottom of the hull to any such point.		_____	200mm
9.3	6.2	From the bottom of the hull, measure maximum distance that any part of the centreboard is capable of being extended.		_____	1450 mm
<b>10</b>		Set the hull the right way up with the side tanks level at the transom. Set up Station 11 at right angles to baseline			
<b>11</b>		<b>Foredeck</b>			
11.1	5.2	Measure the height above the Top of Gunwale at 3486mm (from Station 11) of the top of the foredeck and any extension of the foredeck aft.	164mm	_____	190mm
11.2	5.2	Check that the foredeck conforms generally with the drawings and that the surface is convex in all directions.		Yes / No	
11.3	5.5	If there is a spinnaker chute, check that the volume does not exceed 20% of the forward tank volume.		Yes / No	
11.4	5.2	Measure the distance from Station 11 to the aft edge of the foredeck where it intersects the "Top of Gunwale"	2695mm	_____	2746mm
11.5	5.2	Measure the distance from the Station 11 to the aft edge of foredeck on the hull centreplane.	2900mm	_____	3486mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
11.6	5.2 and 5.4.1	Check that the whole of the aft edge of the foredeck lies between straight lines drawn from the hull centreplane at 2900mm and 3486mm to the "Top of Gunwale" positions at 2695mm and 2746mm, all measurements from Station 11		Yes / No	
11.7	5.4.2	Check that the apertures in the foredeck forward of a line drawn from the hull centreplane at 3486mm to the "Top of Gunwale" at 2746mm do not exceed 5000 mm <sup>2</sup> in total excluding spinnaker chute or bag apertures.		Yes / No	
11.8	5.4.2	Measure the apertures for spinnaker bags, if fitted. Each aperture:		_____	120,000mm <sup>2</sup>
11.9	5.4.2	Measure the distance of the apertures: From Station 11 From the hull centreplane From the top of gunwale	100mm 250mm	_____ _____ _____	3486mm
11.10	8.3.7	Measure the distance along the deck from the stem head to the intersection of the fore sail luff line.	Zero	_____	400mm
<b>12</b>		<b>Forward Watertight Compartment and Seat Tanks</b>			
12.1	5.2	Measure the distance from Station 11 to the forward watertight bulkhead	3530mm	_____	3581mm
12.2	5.2	Check that shape of seat tanks is generally in accordance with the official drawings.		Yes / No	
12.3	5.2	Measure the distance of the junction of the seat tanks and hull from the hull centreplane at :  At station 6 At station 9  Measure distance between a projection of the seat tanks and the hull from the hull centreplane at station 11	450mm 420mm 330mm	_____ _____ _____	480mm 450mm 360mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
12.4	5.2	Measure the distance from the horizontal line joining the "Top of Gunwales" to the seat tanks at 375mm inside the extreme outer edge of the gunwale at :			
		Station 6		_____	85mm
		Station 9		_____	85mm
12.5	10	Check very carefully by eye all the seams of the buoyancy compartments. If not certain of their watertightness check by running water into the compartments, by submersion or by other methods. Are all buoyancy compartments water tight?		Yes / No	
<b>13</b>		<b>Centreboard case and thwarts</b>			
13.1	5.2	Measure the distance from Station 11 to the top aft end of the centreboard case.	1450mm	_____	
13.2	5.2	Measure the distance from Station 11 of the top forward end of the centreboard case		_____	3100mm
13.3	5.2	Measure the minimum depth of the open portion of the centreboard case from the bottom of the keel band to the top of the centreboard case.	305mm	_____	
13.4	5.6.2	Check that no thwarts or other stiffening or reinforcing members fitted across the hull within 3581mm of Station 11 are constructed to form a second cockpit floor or an additional buoyancy compartment.		Yes / No	
<b>14</b>		<b>Registered Number</b>			
14.1	5.9.1	Check that the registered number is clearly carved or stamped on the inside of the transom, spine or aft end of the centreboard case.		Yes / No	
14.2	5.9.2	Check that the ISAF plaque bearing the registration number is affixed close to the carved or stamped registered number		Yes / No	

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
<b>15</b>		<b>Mast</b>			
15.1	7.2.1	Set up the mast in the step perpendicular to the base line. Measure the fore and aft distances of the aft edge of the mast at deck level from Station 11.  Maximum: Minimum:	3048mm	_____	3202mm
15.2	7.2.1	Measure maximum mast spar cross section		_____	102mm
15.3	7.2.3	Check that there is a band of contrasting colour around the mast, not less than 10mm wide and with its upper edge at deck level within plus or minus 1 mm deck level. (the mast datum point)		Yes / No	
15.4	7.2.3	Check that there is a band of contrasting colour around the mast, not less than 10mm wide and with its upper edge not less than 381 mm above the mast datum point. (the lower point)	381 mm	_____	
15.5	7.2.3	Check that there is a band of contrasting colour around the mast, not less than 10mm wide and with its lower edge not less than 6858mm above the mast datum point. (the upper point)		_____	6858mm
15.6	7.2.3	Measure the distance from the mast datum point to the top point of the mast.		_____	7011mm
15.7	7.2.4	Check that no rigidly fixed point for attachment of the block, sheave or fairlead for the spinnaker halyard is more than 35 mm from the surface of the mast spar.		_____	35mm
15.8	7.2.4	Measure the spinnaker hoist height above the mast datum point.	5054mm	_____	5955mm
15.9	7.2.5	Measure the distance between the mast datum point and the highest point of entry onto the block, sheave or fairlead for the headsail halyard.	4648mm	_____	4750mm
15.10	7.2.5	Measure the distance between the mast datum point and the point where a prolongation of the luff of the headsail, when set, cuts the fore-side of the mast spar.	4648mm	_____	4750mm
15.11	7.2.2	Measure the mast spar curvature.		_____	30mm
15.12	7.4.1	Measure the spinnaker pole fitting projection.		_____	50mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
15.13	7.1.3	Check that the mast spar is constructed solely either from aluminium alloy containing not less than 90% by weight of aluminium or from wood.		Yes / No	
<b>16</b>		<b>Boom</b>			
16.1	7.3.1	Measure the boom spar cross section.		_____	102mm
16.2	7.3.2	Measure the boom spar curvature.		_____	25mm
16.3	7.3.3	Attach the boom to the mast in the normal way and lying fore and aft at right angles to the mast. Check that there is a band of contrasting colour not less than 10mm wide around the boom with its inner edge not more than 2858mm from the aft edge of the mast spar. (the outer point)		_____	2858mm
16.4	7.3.4	Measure total length of the boom from the aft edge of the mast spar		_____	3308mm
16.5	7.2.3	Check that the prolongation of the top of the boom intersects the mast at or above the lower point on the mast spar.		Yes / No	
<b>17</b>		<b>Spinnaker Pole (s)</b>			
17.1	7.4.1	Measure the spinnaker pole(s) length.		_____	2516mm

Inst'n No	Rule No		Minimum	Actual Dimension	Maximum
<b>18</b>		<b>Weight</b>			
18.1	5.8.1	At the time of weighing, has the boat had an uninterrupted period of two weeks since it last was in water? (if no any weights taken are invalid)		Yes / No	
18.2	5.8.2	Weigh the "sailing weight "	127.4 kg	_____	
18.3	5.8.3 5.8.4	If corrector weights are required, record identification number and weight of each weight. Check that each weight is marked in accordance with Rule 5.8.4		Serial No	Weight _____ _____ _____ _____ _____ _____ _____ _____
18.4	5.8.3	Check that corrector weights are fixed in boat and that their position conforms with Rule 5.8.3		Yes / No	
		<b>Total weight of correctors</b>			

**19 Enter below instruction number of any measurements not taken at initial measurement with reason why omitted**

Instruction No:	Reason not taken

**20 Confirm subsequent measurement of any items listed under 19, (actual measurements to be recorded in appropriate place on form)**

Instruction No:	Measurer's Name	Signature	Date

**Name and address of builder:**

**Country:**

**Predominant hull colour:**

**First owner's name and address:**

	<b>Year of Construction:</b>	
	<b>Registered Number</b>	

*I certify that I have personally taken all the measurements necessary to complete this form and that to the best of my belief 505 no .....conforms with the rules of the class except as stated below:*

Exceptions: (list any instruction number or rule with which boat does not comply)

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Signed:

(Approved measurer)

Date:

These **class rules** are effective from 1 January 2013