



## CHERUB CLASS RULES AND RESTRICTIONS

### Table of Contents

Section 1. OBJECTIVES.....	1
Section 2. GENERAL.....	1
2.1 Class Title.....	1
2.2 Class Insignia.....	1
2.3 Registration.....	1
2.4 Crew.....	1
2.5 Amendments to class restrictions.....	1
2.6 Definitions .....	2
Section 3. HULL and DECKS.....	2
3.01 Archetype.....	2
3.02 Materials.....	2
3.03 Length.....	2
3.04 Overall Beam.....	2
3.05 Sheer.....	2
3.06 Stem.....	2
3.07 Centrecase.....	2
3.08 Decks.....	2
3.09 Gunwale assembly.....	3
Diagram 3.09.....	3
3.10 Midlength section.....	3
Diagram 3.10 Midlength section.....	3

3.11 Transom .....	4
Diagram 3.11 Transom section.....	4
3.12 Curvature in sections.....	4
Diagram 3.12 .....	4
3.13 Buoyancy Compartments.....	5
3.14 Cockpit .....	5
3.15 Weight .....	5
Section 4. CENTREBOARD and RUDDER .....	5
4.1 Centreboard and rudder .....	5
4.2 Rudder extensions.....	5
Diagram 4.2c Transom section.....	5
Section 5. SPARS and RIGGING.....	6
5.1 Spars.....	6
5.2 Masts.....	6
Diagram 5.2c Boom height.....	6
Diagram 5.2 Mast limits.....	7
5.3 Bowsprit .....	8
5.4 Rigging .....	8
Section 6. SAILS.....	8
6.1 Mainsail.....	8
6.2 Jib .....	9
6.3 Asymmetric Spinnaker.....	9
Section 7. NOT PERMITTED.....	9



## **Section 1. OBJECTIVES**

These restrictions are to provide a uniform set of rules to which inexpensive high performance dinghies may be designed and built in all parts of the world.

It is not possible for rules to cover every eventuality. In cases where doubt exists regarding the intention of these restrictions, a ruling should be obtained from the Technical Officer CNCA.

## **Section 2. GENERAL**

**2.1 Class Title.** The class shall be known as the ***CHERUB 12ft. Restricted Class.***

**2.2 Class Insignia.** Shall consist of a heart shaped silhouette of a size which would approximately be contained in a 305mm (12") diameter circle. The insignia shall be of a contrasting colour with the mainsail and placed approximately one third of the distance from the top to the foot on both sides of the sail.

**2.3 Registration.** On completion of measurement by an authorised Technical Officer, subject to conforming to the class restrictions and payment of the prescribed fee, each boat shall be issued with a registration number by the National Class Registrar. This number is to be displayed on both sides of the mainsail (starboard side uppermost), close to and directly under the insignia in colours contrasting distinctly with the sail. The numbers shall be approximately 305mm (12") high and have a minimum trunk width of approximately 51mm (2").

The National Authority may further require these numbers to be permanently marked on or into the hull. Conforming sails shall be marked indelibly with the Technical Officer's signature and the date.

**2.4 Crew.** The crew shall consist of two persons.

NOTE: One trapeze only is permitted, but may be used by either member of the crew.

**2.5 Amendments to class restrictions.** The Class Restrictions may be changed after a postal vote on the remit by owners of registered boats. A 2/3rd majority of the owners entitled to vote, who respond by forwarding a completed ballot to the CNCA must be in favour, for the 'remit' to be passed and adopted.

'Remits' may be submitted to the CNCA by three owners entitled to vote not later than the 28th February in order to be eligible for the Ballot.

The National Technical Officer and State Technical Officers shall be advised promptly of the content of the 'remit(s)' and directed to send to the CNCA, not later than the 30th April, a written report setting out their opinion of the proposed amendment(s)

The CNCA shall, before 31st May, conduct a postal ballot of the voting members on the 'remit(s)' and shall make available all reports on the 'remit(s)' received from the Technical Officers.

All voting owners shall be entitled to a copy of the reports from the National Authority. Votes not returned to the National Authority by the 31st July shall be invalid.

All votes shall be assessed collectively and the amendment(s) if passed shall become effective at 1st September unless otherwise stated in the 'remit'. Amendments shall be applicable to all boats, sails, spars, foils, etc. measured after the date at which the amendment becomes effective.

The National Technical Officer shall determine if boats partly complete on the date when an amendment becomes effective shall be required to conform to the amended rules.

'Remit(s)' from boat owners may only be considered for voting every third year while the National Technical Officer may submit his own 'remit(s)' for voting annually.

The National Technical Officer, in conjunction with the General Committee of the CNCA shall have the power to adjust existing Rules, before submitting any remit(s) to the vote, to avoid any anomaly that might occur through the operation of the remit(s) once approved.



### 2.6 Definitions

**Chine:** The junction between the bottom and topsides outside skin.

**Camber:** As convex.

**Coloured Bands:** A band painted on a spar in a contrasting color to highlight a measurement limit.

**Concave:** Curved inwards or downwards (hollow).

**Contest:** A contest is defined as a continuous series of races broken only by laydays.

**Convex:** Curved outwards or upwards.

**Gunwale Assembly:** The whole of the gunwale construction inclusive of the inside and / or outside gunwales, beltings, cappings etc.

**Sheer:** Point where the outside surface of topsides or projection thereof meets or intersects the upper surface of the decks.

**Skin:** The shell of the hull excluding structural members to or by which it is jointed.

**Standing rigging:** Wire, rope or rod used to support the mast, without which the mast would not stand whilst sailing.

**NOTE:** All metric conversions to be made in accordance with S.I. system practices adopted by Australia, New Zealand and the United Kingdom. i.e. All measurements of length in excess of one metre shall be in metres and whole millimetres and those less than one metre shall be in whole millimetres. All measurements of weight are to be in kilograms to one decimal place only.

### Section 3. HULL and DECKS

**3.01 Archetype.** Boats shall be of a hard chine type with not more than one chine each side of the fore and aft centreline. The angle formed by the junction between bottom and topsides at the chine may 'disappear' forward but aft of the mid-length may not be rounded off to a radius greater than 7mm (1/4").

#### **3.02 Materials.**

- The hull may be constructed of any materials.
- Decks shall be constructed of a rigid material, be permanently fitted and capable of supporting the weight of the crew.

**3.03 Length.** The overall length excluding stem and transom fittings shall not exceed 3.658m (12' 0")

**3.04 Overall Beam.** The maximum overall beam outside gunwale cappings etc. may not exceed 1.753m (5' 9")

**3.05 Sheer.** The sheer shall be fair and continuous in elevation, and be concave, straight, or convex. (Refer to 3.09)

**3.06 Stem.** The stem shall be approximately perpendicular to the water-line and straight for a minimum depth below sheer of 457mm (18") but may be rounded below this point.

**3.07 Centrecase.** Shall be fitted on the fore and aft centreline of the hull and may not be constructed in a way to enable the centre-board to be set off centre.

#### **3.08 Decks**

Decking shall be fitted for the full width of the boat to a minimum of 1.300m from the stem.

Openings are permitted for halyards, spinnaker stowage, jib furling gear, etc., provided that they do not exceed 2200 sq. cm in total area or permit access for water into a buoyancy compartment.

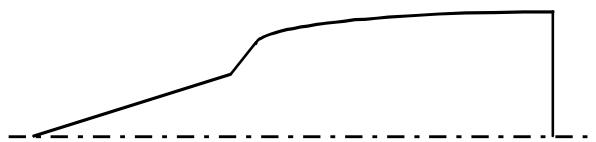
Aft of 1.900m from the stem, side decking not less than 100mm and not greater than 300mm in width inclusive of gunwale assembly must be fitted each side of the boat. This may roll down or slope inwards but may not fall more than 25mm below the sheer within 100mm of the gunwale.



**3.09 Gunwale assembly.** The Gunwale assembly may be fitted completely or partly outside the hull. No projection is permitted beyond outside the gunwale other than foot stops for the crew. Distance from the sheer to outer edge of gunwale assembly shall not exceed 150mm at any point. Vertical depth through gunwale assembly shall not exceed 50mm at any point.

The outer edge of the gunwale shall not contain concave sections in plan view. i.e. the following shape or its derivatives are prohibited:

**Diagram 3.09**

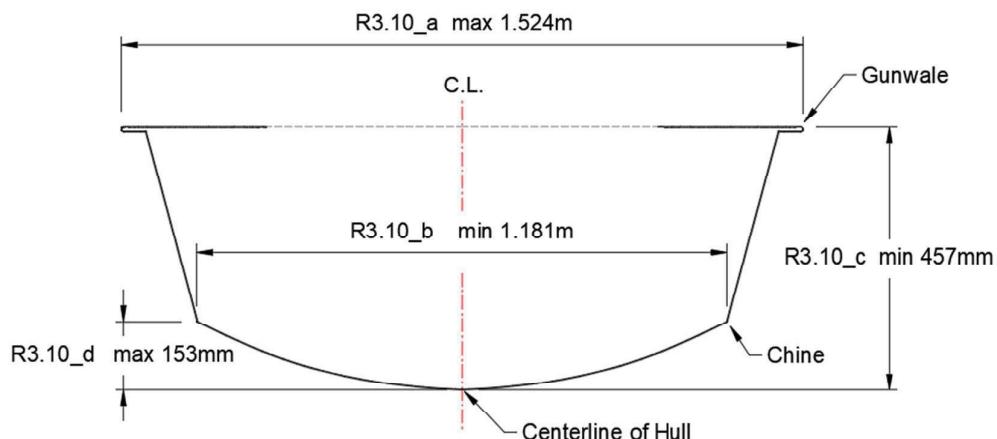


**3.10 Midlength section.** The following shall be measured at mid-length:

- (a) Beam outside gunwale cappings etc. may not exceed 1.524m (5'0").
- (b) Beam at chines outside of skin may not be less than 1.181m (3' 10½").
- (c) Depth measured vertically from the sheer to underside of hull at centre, may not be less than 457mm (18").
- (d) Depth measured vertically from the chines to the underside of hull at the centre, may not exceed 153mm (6").

**NOTE:** Where chine has been rounded off (max radius 7mm, see 3.01) measurements are made to the midpoint of the round.

**Diagram 3.10 Midlength section.**





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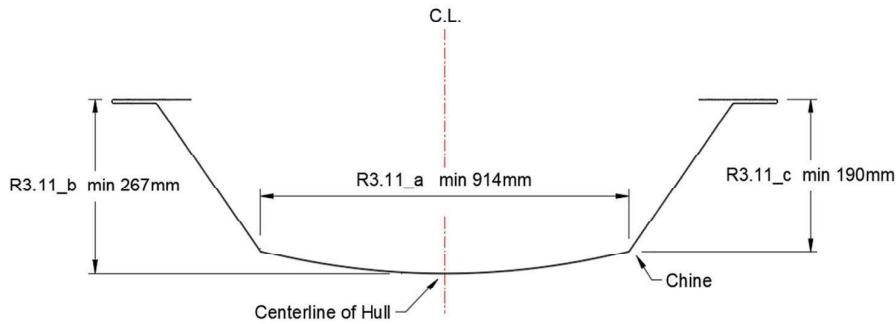
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**3.11 Transom.** The following shall be measured at Transom which shall be approximately perpendicular to the water-line and shall be set no further than 51mm (2") forward of the aft extremity of the hull.

- Width between the chines shall not be less than 914mm (3' 0").
- Depth measured vertically from the sheer to the underside of hull at centre may not be less than 267mm (10½").
- Depth measured vertically from the sheer to chine may not be less than 190mm (7½").

**NOTE:** Where chine has been rounded off (max radius 7mm, see 3.01), measurements are made to the midpoint of the round.

**Diagram 3.11 Transom section.**



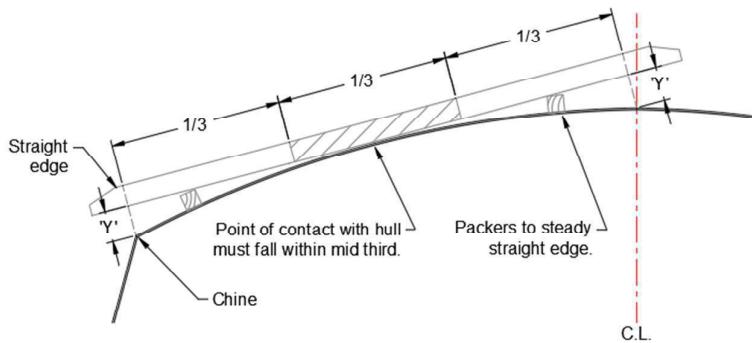
**3.12 Curvature in sections.** Between chine and sheer, no vertical cross section of the hull may contain more than 19mm (3/4") of curvature, which may be concave or convex.

Between chines and fore & aft centreline, curvature may **only be convex** and may not exceed the following:

- at 914mm (3' 0") from the stem: 44mm (1¼").
- at or aft of 1.829m (6'0") from the stem: 38mm (1½").

Such curvature in sections shall have its maximum rise or depth in the middle one-third (1/3) of the span from either extremity (ie at sheer, chine, or centreline).

**Diagram 3.12**



Note: Ensure that 'Y' values are equalised by adjusting packers.

Measured curvature is then the value of 'Y' at either end.



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**3.13 Buoyancy Compartments** Not less than 0.255cu.m (9.005cu.feet.) of buoyancy shall be contained in three separate compartments, with not less than 0.02cu.m (0.71 cu.feet) in each one.

These shall be built into the boat in such a manner as to enable the hull, with sails, spars, rudder, centreboard and all loose gear removed, to support 136.1kg (300lbs) amidships and keep the gunwales above water all around.

**3.14 Cockpit** Self draining cockpits of the false floor type are permissible. On the fore-aft centreline at the leading edge of the centreboard case the measurement from the outside skin of the hull to the top of the cockpit floor shall not exceed 300mm. Where measurement hollows have been included these shall be bridged with a batten to form a fair curve, the measurement shall then be made to the batten.

**3.15 Weight** The minimum weight of the hull in dry condition shall be 51kg.

The weight shall include the bowsprit for asymmetrical spinnakers, control lines and all fittings **excluding**: sails, mast, boom, rigid boom vang systems, standing rigging, centreboard, rudder, rudder box, main sheets, spinnaker sheets and loose gear, e.g. bailing buckets, paddles, etc. If the hull is under weight, correctors shall be fitted to bring it up to minimum weight.

The correctors shall be fitted in the proximity of the mast step / centre board case and shall be visible when the boat is in an upright position and all buoyancy hatches are in place.

The maximum weight of fitted correctors shall be 6kg.

Boats weighing less than 45kgs shall have structural additions made at the direction of the Technical Officer who shall record the amount of weight correctors and the nature of any structural additions on the measurement form.

Weight correctors may be subsequently reduced or removed only after the boat is reweighed.

## Section 4. CENTREBOARD and RUDDER

**4.1 Centreboard and rudder** May be of any material(s) and type but may not be ballasted.

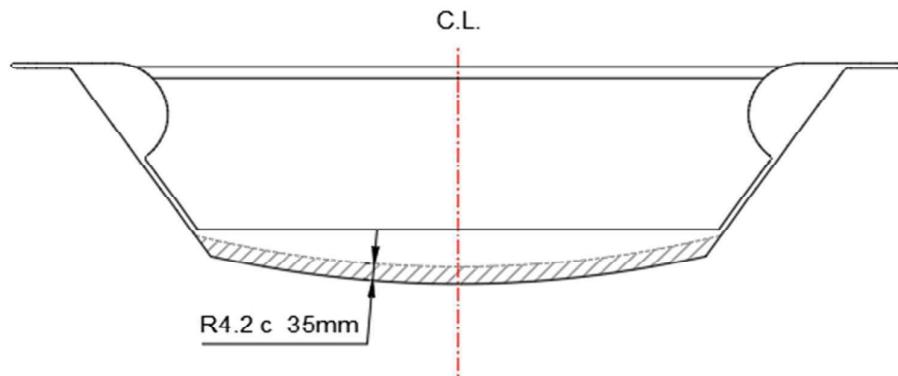
The centreboard may not be shaped or fitted with any device by which it will adjust itself or may be adjusted off-centre or pivoted about its longitudinal axis.

Only one centreboard and one rudder are permitted in a contest. The Technical Officer may approve replacement centreboards / rudders if these are broken.

**4.2 Rudder extensions** Rudder Outriggers / Pods for extending the position of the rudder aft of the hull are permitted but must conform to the following restrictions and specifications:

- a) Maximum overall length from transom - 630mm.
- b) Maximum width excluding mounting flanges etc - 600mm.
- c) Minimum distance from bottom of hull at transom excluding mounting flanges etc - 35mm. See diagram 4.2c
- d) No horizontal surfaces may be within 10mm of Transom.

**Diagram 4.2c Transom section.**





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### Section 5. SPARS and RIGGING

**5.1 Spars.** Spars may be made of any material, may be laminated and/or hollow, and must be able to pass through a 105mm diameter ring when stripped of all fittings.

Spars may not be constructed permanently bent.

Only one set of spars is permitted in a contest.

The Technical Officer may approve a replacement if the original is damaged beyond repair.

### **5.2 Masts.**

a) **Overall length.** May not exceed 6.7m. No extension of the mast beyond 6.7m by any means is permitted.

b) **Step.** The mast may be stepped at, above or below deck level. Mast steps shall not protrude more than 200mm above sheer level.

c) **Boom height.** The upper top of the boom, inclusive of track, or projection thereof, may not be set below the upper edge of the lower coloured band. See Diagram 5.2c.

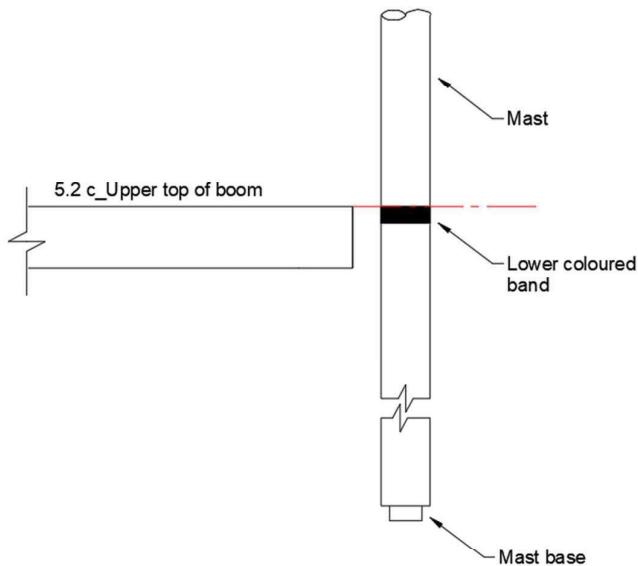
d) **Coloured bands.** Two coloured bands not less than 13mm in width and spaced not more than 5.49m between inner edges, shall be painted on the mast. When the mainsail is set no part of the head of the sail may extend past a line 90 degrees to the mast at the lower edge of the upper coloured band.

e) **Upper coloured band.** The distance from its lower edge to the sheer level shall not exceed 6.25m.

f) **Height of hounds /stay attachment:** The maximum height above sheer level shall be 4.80m.

g) **Spinnaker Hoist exit:** The maximum height above sheer level shall be 5.2m.

**Diagram 5.2c Boom height.**



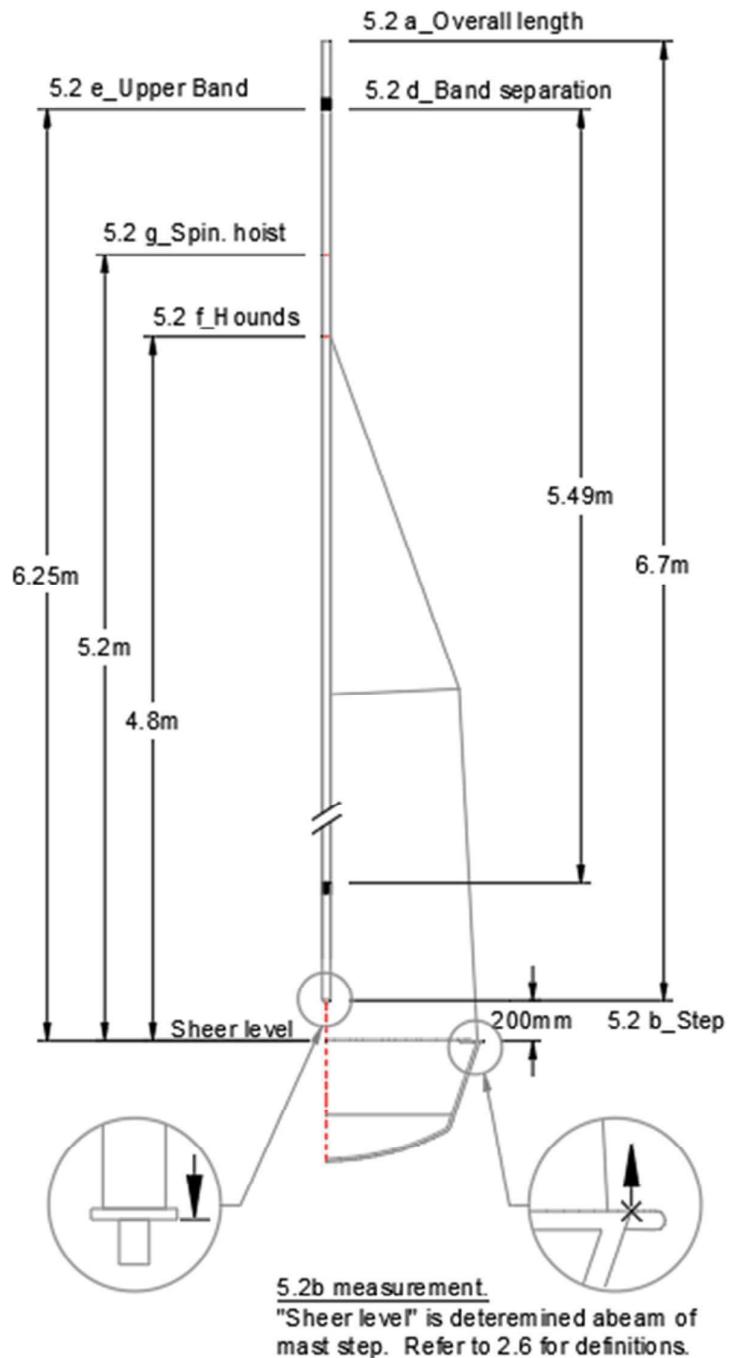
Profile of boom and mast colored band relationship, looking to Port.  
Boom is shown in its lowest allowable position.



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Diagram 5.2 Mast limits





### 5.3 Bowsprit

- a) Bowsprits shall be retractable to within 500mm of the stem.
- b) The length from the stem to the outer most extremity of the bowsprit, when the bowsprit is fully extended shall not exceed 1.65m.
- c) The outer end of the bowsprit shall be solid or capped.
- d) The bowsprit may be supported by a solid or flexible strop, where a solid strop is fitted, it shall not attach to the stem at point within 35mm of the round at the bottom of the stem. The maximum cross-sectional depth of the spar shall be 50mm.

### 5.4 Rigging

- a) Standing and running arrangements are optional, however adjusting of standing rigging to permit alteration of bend or rake in the mast whilst racing is not permitted.
- b) Arrangements which allow the angle of the bowsprit to be altered while sailing are not permitted.
- c) Devices that attach below the top of the boom to control fore and aft bend of the mast shall be permitted.
- d) The point at which the forestay attaches to the bow fitting shall not be more than 30mm forward of the stem or its projection.

## Section 6. SAILS

Only one set of sails is permitted in a contest. The Technical Officer may approve replacement of sails damaged beyond repair.

- (a) **Measurement:** All measurements to be read in accordance with ISAF Measurement Manual except where modified by the Class rules.
- (b) **Materials:** Sails may be constructed from woven fibre cloth, unwoven fibre cloth, flexible plastic film or composite materials consisting of any combination of the three. All sails shall be stowable in sail bags of normal dimensions. For the purpose of this rule, 'long' sail bags for the stowing of rolled up sails are regarded as normal.
- (c) **Reinforcements:** Normal reinforcement, such as reinforcement as is normally considered necessary to hold the tack, clew and head cringles and the spinnaker recovery points against pulling out shall be permitted. The use of material other than normal sail reinforcement material cannot be regarded as normal.  
Reinforcement of any fabric having the effect of stiffening the sail is permitted only within the distance of 150mm plus 3% of the length of the luff of the sail from each corner or from a Cunningham eye or a spinnaker recovery line attachment. This reinforcement shall be capable of being folded.  
Other reinforcement, as a continuation of corner stiffening or elsewhere, comprising not more than two additional layers of material having the same weight as the body of the sail, is permitted providing that it can be folded as described above and is not stiffened by the addition of bonding agents, close stitching, or otherwise.  
Glued seams shall not be considered as stiffening providing that they can be folded as described above. Normal tabling at the edges of the sails is permitted providing that it is not stiffened.

### 6.1 Mainsail.

- (a) **Luff:** The length of the luff shall not exceed 5.490m.
- (b) **Leech:** Shall not exceed 5.750m when laid flat stretched free of wrinkles. The length of the leech may be taken as the straight distance between the front of the head and the clew.
- (c) **Foot:** The length of the foot shall not exceed 1.920m.
- (d) **Head:** No part of the mainsail shall extend above 100 degrees to the luff at the head.

Cross width measurements: Shall be the distance from the leech measurement points, as defined below, to the nearest point on the fore edge of the sail including the bolt rope, when smoothed out.

The point on the leech from which the cross measurements are taken shall be determined bridging any hollows in the leech with straight lines. The mid-point of the leech shall be determined by folding the front point of head to the clew and the quarter and the three quarter leech points by folding the clew and the head to the mid-point of the leech.

Cross widths (maximum):

1. Quarter - 1.170m
2. Mid-point - 1.610m
3. Three quarter - 1.830m
4. Width at (d) is not to exceed 700mm to be measured at 90 degrees from the luff.  $d = 150\text{mm}$  down the luff from the head.

Battens: The number of battens in the mainsail shall not exceed six (6) and the width inside the pockets shall not exceed 65mm.

Length and position of the battens are optional.

NB: No outer batten end is to be inside a line between the outside ends of the adjacent battens.



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### 6.2 Jib. Measured to ISAF Rules.

- a) **Area Measurement:** The jib is to be measured to an area calculated of  $L \times (0.5 \times LP)$  where  $L$  = Luff Length and  $LP$  = Length to the clew perpendicular to the luff. The calculated area is not to exceed 3.25m.sq.
- b) **Head:** A cross width measured from luff (X) to closest point on the leech shall not exceed 150mm. X is a point measured 150mm down the luff from the head.
- c) **Roach (Leech):** No part of the leech shall extend beyond a straight line between clew point and measurement point (X) where it intersects the leech.
- d) **Foot Round:** No part of the foot shall extend more than 150mm beyond a straight line between the tack and clew point.
- e) **Clewboard:** The overall dimensions of clewboard shall not exceed 100mm x 25mm.  
NB: Where clewboards are fitted the measurements shall be taken from the point of intersection of the projections of the adjacent edges of the foot and leech.

Battens: A maximum of four (4) may be fitted to the leech only. Maximum dimensions are:

B1	Top batten	150mm x 32mm (placed above measurement point (X))
B2	Second batten	200mm x 32mm (placed not less than 1000mm from the AFT head point)
B3	Third batten	250mm x 32mm (placed between B2 and B4)
B4	Fourth batten	350mm x 32mm (placed not less than 1000mm from the clew)

### 6.3 Asymmetric Spinnaker

- a) One spinnaker only may be carried on board in any race.
- b) Asymmetric spinnakers shall only be set from a bowsprit.
- c) Spinnakers shall be measured in a dry cool condition.
- d) **Perimeter length:** The perimeter length of the spinnaker shall not exceed 15.4m, where the perimeter is the sum of the luff, leech and foot measurements. Luff, leech and foot measurements shall be made with the sail laid flat and pulled taut along the relevant edge.
- e) **Cross width:** The cross width measured from a point half way along the leech to half way along the luff shall not exceed 3.1m. The measurement shall be made with the sail laid flat and smoothed free of wrinkles.

### Section 7. NOT PERMITTED.

- a) Ballast of any form other than weight correctors.
- b) Outriggers for sheeting sails or any other purpose except for the bowsprit and rudder extension.
- c) Double or pocket luffed mainsails.
- d) Any contrivance other than trapeze extending outboard to support the crew.
- e) Surfaces on the rudder or centerboard which are intended to produce vertical lift when the boat is in the normal sailing orientation.

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