

CHERUB NATIONAL COUNCIL OF AUSTRALIA

RULES AND RESTRICTIONS

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.

TITLE. The class shall be known as the CHERUB 12ft. Restricted Class.

1. INSIGNIA: Shall consist of a heart shaped silhouette of a size which would approximately be contained in a 12' (305mm) 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. 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 12' (305mm) high and have a minimum trunk width of approximately 2' (51mm). 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.

3. CREW: The crew shall consist of two persons.

4. 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.

5. HULL

I Length overall excluding stem and transom fittings shall not exceed 12 feet (3.658m):

II 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 ¼"-(7mm).

III Sheer. shall be fair and continuous in elevation, either concave, straight, or convex.

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

V Midlength. The following shall be measured at mid-length:

- (a) Beam outside gunwale cappings etc. may not exceed 5'0" (1.524m)
- (b) Beam at chines outside of skin may not be less than 3'10 1/2" (1.181m)
- (c) Depth measured vertically from the sheer to underside of hull at centre, may not be less than 18" (457mm)
- (d) Depth measured vertically from the chines to the underside of hull at the centre, may not exceed 6" (153mm).

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

- (a) Width between the chines shall not be less than 3'0" (914mm).
- (b) Depth measured vertically from the sheer to the underside of hull at centre may not be less than 10 1/2" (267mm).
- (c) Depth measured vertically from the sheer to chine may not be less than 7 1/2" (190mm).

NOTE: Where chine has been rounded off as in 5(II). measurements for 5(V)(b) and (d) and for 5(VI) (a) and (c) shall be taken midway on round. Where a keel batten or band is fitted this may not exceed 2"(51mm) in width or 1/2" (13mm) in depth.

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

VIII Curvature in sections: No vertical cross section of the hull may contain more than 3/4"(19mm) of curvature, which may be concave or convex, between chines and sheer. Between chines and fore and aft centreline curvature may only be convex and may not exceed the following:

- (a) at 3'0" (914mm) from the stem - 1 3/4" (44mm)
- (b) at or aft of 6'0" (1.829m) from the stem - 1 1/2" (38mm).

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

IX Materials: The hull may be constructed of any materials provided that the decks shall be constructed of a rigid material to support the weight of the crew and shall be permanently fitted.

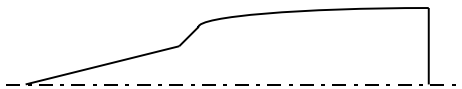
X Centrecase shall be fitted on the fore and aft centreline of the hull and may not be constructed in a way to enable the centre-board to be set off centre.

XI Decks: Decking shall be fitted for the full width of the boat to a minimum of 1.300m from the stem, with the exception that openings not exceeding 2200 sq.cm in total area are permitted for halyards, spinnaker stowage, jib furling gear, etc., provided that they do not permit access for water into a buoyancy compartment.

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Aft of 1.9m 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.

XII Gunwale assembly: The outer edge of the gunwale shall contain no concave sections in plan view. i.e. the following shape or its derivatives are prohibited.



The Gunwale assembly may be fitted completely or partly outside the hull. No projection is permitted 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.

XIII Buoyancy Compartments: Not less than 9 cubic feet (0.2549cu.m.) of buoyancy shall be contained in three separate compartments with not less than 2/3 cubic feet (0.0189cu.m) in each one. These shall be built into the boat in such a manner as to enable the hull, with sails, spars, rudder, centre-board and all loose gear removed, to support 300lbs. (136.1kg) of cast iron or other dense material placed not less than 4'6" (1.371m) from the stem with the cockpit flooded and all draining devices opened. After remaining in this position for not less than 30 minutes the gunwales shall remain clear all round and no significant leakage into the buoyancy compartments shall have occurred.

Measurement of the buoyancy compartments shall include the volume contained within the external surface surrounding these but may not include buoyancy achieved in other parts of the hull by foam sandwich or other construction. In hulls built entirely or substantially from non buoyant materials there shall remain when buoyancy compartments are flooded not less than 100lbs. (45.4kg) positive buoyancy of an approved type.

XIV 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.

XV 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.

6. 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 centre-board and one rudder is permitted in a contest. The Technical Officer may approve replacement centreboards/rudders if these are broken.

7. 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.

Mast: The mast may be stepped at, above or below deck level. Mast steps shall not protrude more than 200mm above the sheer line. The overall length of the mast may not exceed 6.7m, of which no more than 6.25m measured to the lower edge of the upper colour band may extend above the sheer level. No extension of the mast beyond 6.7m by any means shall be permitted. Two coloured bands not less than 13mm in width and spaced not more than 5.49m apart 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. In addition 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.

Spinnaker Hoist: The maximum height of the spinnaker halyard exit shall be 5.2m above the sheer.

Bowsprit: Bowsprits shall be retractable to within 500mm of the stem. The length from the stem to the outer most extremity of the bowsprit, when the bowsprit is fully extended shall not exceed 1.65m. The outer end of the bowsprit shall be solid or capped. 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.

Rigging: Standing and running arrangements are optional however adjusting of standing rigging to permit alteration of bend or rake in the mast whilst racing are not permitted. Rigging arrangements which allow the angle of the bowsprit to be altered while sailing are not permitted. With the exception that devices attached below the top of the boom to control fore and aft bend of the mast shall be permitted. The point at which the forestay attaches to the stem fitting shall not be more than 30mm forward of the projection of the stem.

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

Measurement: All measurements to be read in accordance with ISAF Measurement Manual except where modified by the Class rules.

Materials: The 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.

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 can not 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 provided 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 provided that they can be folded as described above.

Normal tabling at the edges of the sails is permitted provided that it is not stiffened.

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Mainsail:

Luff: The length of the luff shall not exceed 5.490m

Leech: Shall not exceed 5.770m when laid flat stretched free of wrinkles. The length of the leech may be taken as the straight distance between the head and the clew.

Foot: The length of the foot shall not exceed 1.950m

Head Board: Maximum 150mm inclusive of the luff rope at 90 degrees to the luff.

Cross 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 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:

- (a) Quarter; 1.130m
- (b) Mid-point; 1.610m
- (c) Three quarter, 1.850m
- (d) Width at head (d) 600mm shall be measured from the point on the leech 620mm from the head.

Battens: In the mainsail shall not exceed six in number and the width inside the pockets shall not exceed 65mm.

Length and position of the battens are optional. Except that no part of the uppermost batten pocket shall extend above the measurement line of cross width (d).

Jib:

Measured to ISAF Rules.

Perimeter (Luff + Leech + Foot) (9.540m.) max.

Luff maximum 4.170m max.

Head to centre foot 4.040m max.

Width at head 32mm max.

Clewboard 100mm x 25mm max.

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. The mid leech to luff (795mm max.) shall be measured from the point on the leech (1.915m) from the head.

Battens: May be fitted to the leech only and shall not exceed three in number. Maximum dimensions are as follows:

Top batten 150mm x 32mm

Second batten 250mm x 32mm

Third batten 350mm x 32mm

The upper and lower pockets to be placed not less than (920mm) from the head or clew. The distance measured from the head to the point on the foot (200mm) from the tack shall not exceed (4.170m).

The distance measured from the head to the point on the foot (200mm) from the clew shall not exceed 3.880m. For the purpose of this rule the clew shall be the point used in the measurement of the foot.

Asymmetric Spinnaker:

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.

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.

Spinnakers shall be measured in a dry condition.

Asymmetric spinnakers shall only be set from a bowsprit. One spinnaker only may be carried on board in any race.

9. THE FOLLOWING ARE NOT PERMITTED:

- (a) Ballast of any form other than weight correctors.
- (b) Outriggers, excluding the bowsprit, for sheeting sails or any other purpose.
- (c) Double or packet luffed mainsails.
- (d) Any contrivance other than trapeze extending outboard to support the crew.
- (e) Spinnaker sheet catchers on stem which may be dangerous to other crew or craft.
- (f) Surfaces on the rudder or centerboard which are intended to produce vertical lift when the boat is in the normal sailing orientation.

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

10. DEFINITIONS:

Chine: The junction between bottom and topsides outside skin.

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

Concave: Curved inwards or downwards (hollow).

Convex: Curved outwards or upwards.

Camber: As convex.

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

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

Coloured Bands: Coloured bands shall be of a colour that will contrast with the colour of the spars.

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

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 to be in kilograms to one decimal place only.