

AUSTRALIAN COBRA CATAMARAN ASSOCIATION

RULES AND RESTRICTIONS

IMPOSED ON

COBRA 5 METRE CATAMARANS

AS AMENDED TO JANUARY 1996

Revision 1.2 - November 1997

General

1. By agreement with the designer of the Cobra 5 Meter Catamaran, the Australian Cobra Catamaran Association (ACCA) has acquired the rights to determine and promulgate rules and restrictions which set limitations within which all members are bound to operate in the construction and/or preparation of their Cobra crafts for racing events. The rules and Restrictions determined by the ACCA are in no way to infringe upon the designers rights nor change any design feature of the Cobra 5 Meter Catamaran.

The designer reserves sole right to initiate any design changes.

2. Where there is a conflict between ACCA Rules and Restrictions and plan specifications, the ACCA Rules and Restrictions shall prevail.
3. The official language of the class and its organisation is English in all respects and in the event of any dispute over interpretation the English text shall prevail.

1. REGISTRATION

- 1.1 All boats in this class are to be registered with the ACCA through their state associations to be qualified to gain entry into any race sailed under the auspices of the ACCA or any of its state or regional associations.
- 1.2 Registration of a Cobra Catamaran will be actioned only after receipt of a registration fee and a class measurement certificate signed by an ACCA approved measurer.
- 1.3 In the event of a change of ownership of a Cobra Catamaran the ACCA is to be notified by the original owner through his own club or association and his state association. Notification is to include the name and address of the new owner and the club or association to which he belongs.

2. MEASUREMENTS

General

- 2.1 The Cobra Catamaran is a one design class and any boat constructed by it by professional or amateur boat builder is to conform to design specifications and the ACCA Rules and Restrictions.
- 2.2 Measurements of boats is to be carried out by ACCA approved measurers only.
- 2.3 A measurer shall not measure a boat owned or built by himself or one in which he has a particular interest.
- 2.4 All measurement data are to be entered on a Class Measurement Certificate using the Metric System of measurement.
- 2.5 If a boat owner purchases new equipment, which is subject to the measurement rules and restrictions, after his boat is registered, he is to apply to the official measurer in his region to have that equipment measured. Those measurements are to be entered on a fresh Class Measurement Certificate and forwarded to the state and national associations.
- 2.6 All registered boats shall be liable to re-measurement at the discretion of the National Association, a state authority or race committee.

3. HULLS

- 3.1 The measurer is to prepare the hulls for measurement as follows :-
 - 3.1.1 Invert the hull,
 - 3.1.2 Assemble and position the bow measurement template on the hull,
 - 3.1.3 Position the transom template on the hull,
 - 3.1.4 Connect bow and transom templates with datum cord on both sides of the hull, and
 - 3.1.5 Position templates 1, 2 and 3 at 920 mm, 2200 mm and 4350 mm respectively abaft the measurement edge of the bow measurement template, ensuring each of these templates touch the skin at the keel and that at each station the templates are equi-distant from the sheer-line.
- 3.2 The datum line cords shall pass each template within the tolerance marks.
- 3.3 The sheerlines at each template shall not be above or below the tolerance marks.
- 3.4 The clearance between the templates and skin and stem shall not be more than 3 mm.
- 3.5 The skin shall not project beyond the transoms.
- 3.6 The distance between the measurement edge of the bow template and transom template shall not be more than 4970 mm no less than 4950 mm.
- 3.7 The difference between the deck centre line and keel centre line immediately abaft the main beam shall not be more than 10 mm.

- 3.8 The distance between deck and centre lines at bow and transom shall not be more than 1735 mm nor less than 1720 mm.
- 3.9 The centreplanes of each hull and its centreboard shall coincide.
- 3.10 The difference in length between the diagonals from the tip of each bow to the deck centrelines at each transom shall not exceed 50 mm.

4. BEAMS

- 4.1 The hulls shall be joined by a main beam and a rear beam. There shall be no beam or strut attached to the hulls other than the main beam, rear beam or dolphin striker rod.
- 4.2 The main and rear beams shall be straight, aluminium alloy mast extrusion with integral track, of constant section throughout its length.
- 4.3 The major dimension of the section shall not be more than 110 mm nor less than 88 mm.
The minor dimension of section shall not be more than 80 mm nor less than 60 mm.
- 4.4 The wall thickness of the section shall not be less than 2 mm.
- 4.5 The main and rear beams shall each be in one continuous piece. They shall be let into the deck and their lower surface shall not be below the inner sheerline nor more than 5 mm above the said sheerline.
- 4.6 The major axis of the section shall be parallel to the sheer and the luff groove shall face aft on the main beam and forward or aft on the rear beam.
The beams shall be rigidly attached to the hulls but shall be easily removable.
- 4.7 The intersection point of the major and minor axis on the main beam shall not be more than 2295 mm nor less than 2285 mm abaft the after end of the bow measurement template.
- 4.8 The intersection of the major and minor axis of the rear beam shall not be more than 4465 mm nor less than 4455 mm abaft the after end of the bow measurement template.
- 4.9 Maximum deflection of the mainbeam over its full length at rest shall not exceed 15 mm in any direction without the mast being stepped.
- 4.10 The fitting of a mid beam shall be optional. If it is elected to fit a mid beam then it can be of any diameter and any wall thickness but must be fitted firmly between main and rear beams at centre of each.
- 4.11 The dolphin striker shall be constructed of 5 mm Stainless Steel rod. Rod on all boats built after January 1, 1976.
Stainless steel wire of suitable diameter - 6 mm - is also acceptable.

5. TRAMPOLINE

- 5.1 The trampoline shall cover the area between the main beam, rear beam and inner sheerlines, except for the maximum gap of 80 mm around the perimeter to allow for lacing.
- 5.2 In addition to these gaps and the necessary lacing eyes, holes not exceeding 0.1 m² in total area is allowed in the trampoline.
- 5.3 There shall be no trampoline or other covering whatsoever in front of the main beam or behind the rear beam.
- 5.4 Net trampolines are not permitted.
- 5.5 Mesh cloth trampolines are permitted.

6. CENTREBOARDS

- 6.1 Two centreboards shall be fitted, one in each hull. Each centreboard shall pivot about one point only and shall not project below the line of the keel.
- 6.2 Dagger boards are not permitted.
- 6.3 In the fully down position the underwater profile of each centreboard shall not overlap nor be more than 10 mm away from the centreboard template, both ends of which shall touch the keel line.
- 6.4 In the fully down position the front edge of each centreboard at the line of the keel shall not be less than 2025 mm nor more than 2035 mm from the transom.
- 6.5 In the full down position the maximum thickness of each centreboard at the line of the keel shall not be less than 23 mm nor more than 28 mm.
- 6.6 The surface of each centreboard below the line of the keel shall nowhere be concave. The cross sections of each centreboard shall be substantially symmetrical about its fore and aft centrelines.
- 6.7 The centreboards shall have no moving parts.

7. RUDDERS

- 7.1 The rudders shall be hung on the transom and shall be attached so as to retain them in event of capsize.

8. WEIGHT

- 8.1 The total assembled weight of hulls, main beam including correctors, rear beam, trampoline, centreboards, mainsheet track or wire hawse, main sheet traveller and all fittings bolted, screwed or permanently fixed to the boat shall be no less than 77 kg when in dry condition to the measurers satisfaction.
- 8.2 Correctors, if needed, shall be attached to the inside of the main beam and shall not exceed 5 kg.
- 8.3 If correctors are altered or removed the boat shall be re-weighed by an official measurer and a new certificate obtained.

Australian Cobra Catamaran Association rule and restrictions.

8.4 Decks may be G.R.P. or plywood. Plywood decks to be minimum 4 mm plywood and minimum 6 mm between main and rear beams, or 4mm between main & rear beams with adequate strengthening - i.e. extra stringers.

8.5 Hulls may be G.R.P. or plywood. Plywood hulls to be minimum 4 mm plywood.

9. SPARS

9.1 The mast shall be an inherently straight aluminium alloy extrusion of constant section with integral track and of dimensions and general shape of that shown hereafter.

“X” shall not be more than 95 mm nor less than 85 mm measured externally.

“Y” shall not be more than 70 mm nor less than 60 mm measured externally.

“Z” shall not be less than 2 mm.

9.2 The extrusion shall not be tapered at any point of its length.

9.3 The mast may rotate.

9.4 The mast shall be stepped on the centreline of the boat and its vertical axis shall intersect the main beam in any position to which the mast may be rotated.

9.5 A measurement band shall be painted around the mast with its bottom top edge not more than 380 mm nor less than 370 mm from the lower surface of the main beam.

A second measurement band shall be painted with its bottom edge not more than 7000 mm above the top of the lower band.

The measurement bands shall be 15 mm wide and in a colour sharply contrasting with that of the spar.

9.6 The lower end of the mast tube shall not be more than 110 mm above the lower surface of the main beam.

10. BOOM

10.1 The boom may be of any material, but shall be inherently straight and the constant section throughout its length.

10.2 Excluding fittings, the boom shall pass through a 100 mm diameter circle.

10.3 A measurement band shall be painted on the boom with its forward edge not more than 2500 mm from the line of the after side of the mast including the integral track, with the boom attached to its gooseneck in the normal sailing position.

11. FORESAIL BOOMING OUT SPAR (Whisker Pole)

11.1 The foresail booming out spar, including end fittings shall not be longer than 1500 mm.

12. STANDING RIGGING

12.1 There shall be not less than one shroud nor more than two shrouds to each hull, the attachment point being on the outer topsides and not more than 510 mm nor less than 490 mm aft the centre of the main beam.

- 12.2 There shall be one forestay only, which shall be attached to a strop between the hulls.
- 12.3 There shall be no other standing rigging.
- 12.4 The point of intersection of the lines of the forestay and each half of the forestay strop shall be on the centre line of the boat and shall not be more than 510 mm nor less than 430 mm above a straight line joining the inner sheerlines at the points of attachment of the forestay.
- 12.5 All standing rigging included diamond stays shall be circular in section. The minimum diameter shall be 3 mm.
- 12.6 Adjusting the shrouds, forestay or forestay strop whilst racing is prohibited. The shrouds and forestay shall be adjusted only by means of rigging screws, or tumbuckles, shackles, shroud adjuster plates and lashing. Any of these shall be lashed, wired or otherwise firmly secured whilst racing.
- 12.7 The distance from the mast base to the 5 mm bolt holding the hound and forestay shall be 5130 mm.
- 12.8 The distance from the mast base to the diamond fittings shall be 2565 mm.

13. SAILS

- 13.1 The I.Y.R.U. International Sail Measurement Instructions shall apply. Battens shall be removed from the mainsail for measurement.
- 13.2 The rig for the class shall consist of one mainsail and one foresail for any boat.
- 13.3 The sails shall be of woven material, or a laminate of polyester film and woven polyester material, and shall be capable of being stowed in a sailbag of normal dimensions.

Windows of unwoven material to a total maximum area of 0.3 m² shall be permitted in either sail. The area of each window shall be taken as the area of the enclosing rectangle.

14. FORESAIL

- 14.1 The length of the leech shall not be more than 3820 mm.
The length of the luff shall not be more an 4120 mm.
The length of the foot shall not be more than 1690 mm.
- 14.2 At a point 200 mm down the leech from the head the width of the sail to be nearest point of the luff shall not be more than 110 mm.
- 14.3 From the half leech point to the half luff point shall not be more than 850 mm. The half leech point shall be determined by folding head to clew and smoothing the sail out flat.
- 14.4 From the head to the mid point of the foot shall not be more than 3965 mm.
- 14.5 There shall not be more than three battens in the foresail. Each batten shall not be longer than 300 mm and shall be fitted to the leech only except the upper most batten.
- 14.6 Zip and sleeve luffs are allowed.

- 14.7 The foresail shall be carried on the forestay. The tack shall not be extended below the intersection.

15. MAINSAIL

- 15.1 The mainsail shall be set within the inner-edges of the measurement bands on the mast and boom.
- 15.2 The mainsail shall be loose-footed and shall be attached to the boom fittings by tack and clew cringles.
- 15.3 (a) The length of the luff shall not be more than 6870mm
(b) The distance from the head to the clew shall not be more than 6890 mm.
(c) The length of the foot shall not be more than 2440 mm.
- 15.4 There may be a full length batten along or near the foot and not more than 8 others. There shall be a maximum of 9 battens.
- 15.5 No battens may exceed a width of 55 mm or protrude more than 100 mm beyond the leech of the sail.
- 15.6 The headboard shall not measure more than 140 mm in the horizontal direction.
- 15.7 The leech shall be straight or concave between batten pockets and from the top batten pocket to the aft edge of the headboard. Any hollows in the leech in way of width measurement points shall be bridged with straight lines for measurement.
- 15.8 At a point 500 mm down the leech from the head, the nearest point of the luff shall not be more than 480 mm measured across the whole width of the sail including the bolt rope.
- 15.9 The half leech point shall be found by folding head to clew and smoothing the sail flat. $\frac{1}{4}$ and $\frac{3}{4}$ leech points shall be found by folding the head and clew to the half luff point and smoothing the sail flat.
- 15.10 The half luff point shall be found by folding head to tack and smoothing the sail flat. $\frac{1}{4}$ and $\frac{3}{4}$ luff points shall be found by folding the head and tack to the half luff point and smoothing the sail flat.
- The $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ leech to luff measurements shall not be more than 1441, 2139 and 2438 mm respectively.
- 15.11 The mainsail shall be hoisted in the integral luff groove of the mast extension and shall not be fitted with sleeve, double luff or other fairing devices.
- 15.12 When measured and found to be in accordance with these rules, the sail shall be legally and permanently endorsed with the date of measurement and the measurer's signature.
- 15.13 New, or substantially altered sails shall be measured and the details recorded on the official measurement certificate.
- 15.14 Battens shall be in one piece of any material with no moving or articulated parts.
- 15.15 A mainsheet traveller system is permitted only if the traveller runs in a substantially straight line along the rear beam and/or along the boom. The traveller track shall not extend beyond the ends of the rear beam.
- 15.16 Radial boom vang systems are permitted.

Australian Cobra Catamaran Association rule and restrictions.

- 15.17 The mainsail must be capable of being lowered readily whilst afloat and/or any other time whilst the boat is rigged and in its normal plane.

16. RECOGNITION MARKS

- 16.1 The registered number of the boat shall be displayed on a disc to be permanently attached to the rear beam.
- 16.2 The registered number, national letters and class emblem shall be placed on both sides of the main sail, at approximately two thirds of the height of the sail above the boom. Registered number, letters and emblem shall sharply contrast in colour with the sail and shall be placed at different heights on the two sides of the sail, those on the starboard side being upper most.
- 16.3 Letters and numbers shall be of the following sizes :-
310mm in height and of width 210mm (Except for figure 1 and letter l)
- 16.4 Sail makers marks, if any shall be placed near the tack of the sail and shall not exceed 150 mm x 150 mm.

17 CREW

- 17.1 Two persons shall be on board whilst the boat is rigged as a sloop. Single handed racing of a sloop rigged boat is not permitted. Both helmsman and crew are permitted to use trapeze.

18 EQUIPMENT

- 18.1 The following equipment shall be carried on board whilst racing:
- 18.1.1 deleted.
- 18.1.2 15 metres of towline.
- 18.1.3 Personal buoyancy which is to be worn by each member of the crew.

19 MISCELLANEOUS

- 19.1 Hiking aids shall not be permitted except for foot loops, toe straps and trapeze gear.
- 19.2 Hydrofoils, outriggers, movable ballasts, suction bailers, keel bands, rubbing strakes, spray deflectors, chines or any projections on the shin other than normal fittings are prohibited.