

## **COMET CLASS MEASUREMENT RULES**

### **1. INTENTION & INTERPRETATION.**

- a. The intention of the Class Rules shall be to maintain a one-design class in which racing is a true test of sailing skill. The boats shall be alike as possible in all aspects affecting speed and ease of handling. The boat's characteristics of simplicity, safety, moderate cost and low maintenance shall be maintained.
- b. The official language of the Class shall be English. The English text shall prevail in any dispute over translation.
- c. In the event of any discrepancy between the rules and the plans, specifications or measurement forms, the rules shall take precedence.
- d. The Constitution of the Comet Class Association shall govern the procedure for changes and / or additions to these rules.

### **2. PROTECTION OF ONE DESIGN.**

- a. Only Comet Dinghies and holders of a valid licence from Mr A M Simmons shall be entitled to build Comet sailing dinghies.
- b. Builders shall be required by their licence to produce boats and parts in accordance with the official plans and specifications issued by the Designer and in accordance with these Class Rules.
- c. The GRP hull and deck shall be produced only from official moulds to the standards and specifications of Comet Dinghies.
- d. Any alterations to the hull, deck, spars, or any part of a Comet, except as specified in these rules, and in particular Rule 2.e shall be prohibited.
- e. Deviations from the official plans and specifications shall not be permitted, except in respect of the following:-
  - i. deck fittings (see Rule 16.c).
  - ii. tiller extension (see Rule 20).
  - iii. sail controls and rigging (see Rule 26).
  - iv. repairs and painting (see Rule 28).
- f. No deviations from the official drawings or specifications permitted by Rule 2.e shall inhibit or impair the facility of sail reefing by winding the clew of the sail around the mast.

### **3. CERTIFICATE AND REGISTRATION.**

- a. Each Comet shall be issued with a sail number when built and recognized only by that number.
- b. A Measurement Certificate shall be issued with each new Comet in accordance with the Constitution of the Comet Class Association.
- c. No boat shall be allowed to race as a Comet unless it is listed on the Comet Class Association Register and has a valid Measurement Certificate.

### **4. MEASUREMENT.**

- a. Only the Class Measurer, the builder, or holder of a valid building license shall be allowed to issue a Measurement Certificate.
- b. Any Comet with a Measurement Certificate shall be liable to be inspected, examined and remeasured at the discretion of the Comet Class Association or its committee.
- c. At the discretion of the approved measurer, the repair and replacement of any part of a Comet may invalidate the certificate of that Comet.

### **5. COMPLIANCE WITH RULES.**

- a. It shall be the responsibility of the owner to ensure that the Comet complies with the Class Rules.
- b. Any alteration or replacement shall comply with the rules current at the time of the alteration or replacement.

### **6. RULINGS AND DISPENSATIONS.**

- a. Cases of doubt regarding compliance with the Class Rules shall be referred to the Comet Class Association committee who shall give a ruling.
- b. The Comet Class Association shall be empowered to grant dispensations only in exceptional cases where this is considered to be in the interests of the class. Any such dispensation shall be recorded on the Measurement Certificate of the boat.

### **7. MEASUREMENT CONTROLS TERMINOLOGY.**

- a. The use of the words “maximum” and “minimum” relating to measurements in these rules shall mean that these are the greatest and smallest measurements permitted in each case.

## **8. HULL LENGTH AND BEAM MEASUREMENTS.**

- a. All length measurements shall be taken from the main aft face of the transom to the extreme front deck moulding.
- b. Length overall. Maximum 3410mm. Minimum 3400mm.
- c. The beam measurement shall be taken at point of maximum beam and be measured to include moulded deck gunnel, but exclude fendering or rubbing strake.
- d. Beam overall. Maximum 1375mm. Minimum 1365mm.

## **9. MAST POSITION.**

- a. The centre of the mast hole shall be measured from Bulkhead A and shall be a maximum of 715mm and a minimum of 705mm. (see Diagram 1).
- b. The mast hole diameter shall be a maximum of 57mm measured at no more than 20mm below deck level.

## **10. DAGGERBOARD CASE.**

- a. Maximum slot width at no more than 20mm from deck surface and 10mm from hull surface shall be a maximum of 37mm and a minimum of 34mm.
- b. Slot position in hull. (see Diagram 1).
  - i. Forward end of slot to main aft face of transom measured along hull centreline or alongside keelband. Maximum 1895mm. Minimum 1885mm.
  - ii. Aft end of slot to main aft face of transom measured along hull centreline or alongside keelband. Maximum 1593mm. Minimum 1583mm.
- c. Slot position in deck. (see Diagram 1).
  - i. Forward end of slot to Bulkhead B. Maximum 350mm. Minimum 340mm.
  - ii. Aft end of slot to Bulkhead B. Maximum 45mm. Minimum 35mm.
- d. Slot length in hull and deck. Maximum 308mm. Minimum 300mm.

## **11. APERTURES IN HULL SKIN.**

- a. Apertures in the hull skin shall not be permitted except those listed in Rule 11.
- b. Daggerboard slot. Shall be in accordance with Rule 10.
- c. Self bailer. Maximum number one. Maximum aperture in hull skin 112mm x 50mm.
- d. Drain hole in transom. Maximum number one. Maximum diameter of opening 26mm.

## **12. PROJECTIONS BEYOND HULL SKIN.**

- a. The only permitted projections shall be:-
  - i. Rudder fittings and retaining clip.
  - ii. Self bailer, in accordance with Rule 11.c.
  - iii. Drain plug, in accordance with Rule 11.d.
  - iv. Keelband, in accordance with Rule 14.
  - v. Deck gunnel moulding and gunnel trim, in accordance with Rule 13.

## **13. GUNNEL TRIM.**

- a. Wooden, rubber or plastic fendering or rubbing strake permitted fitted to extreme outward edge of deck moulding.
- b. The trim shall be of constant section except for within 40mm of the ends.
- c. Maximum fitted depth of section 26mm. Maximum fitted width 12mm.
- d. Maximum fitted length 3520mm. Minimum fitted length 3500mm.

## **14. KEELBAND.**

- a. Shall be permitted, fitted to entire length of keel and stem, excepting daggerboard slot.
- b. Maximum width 13mm. Maximum thickness 6mm.

## **15. APERTURES IN DECKS AND BULKHEADS.**

- a. No apertures in decks or bulkheads shall be permitted except those listed in Rule 15.
- b. Inspection hatches. Shall be of watertight type. Maximum number of three permitted, one in centre of Bulkhead C, one on each side of daggerboard slot. Maximum diameter of its opening shall be 165mm.
- c. Compasses. Two apertures of not more than 105mm shall be permitted for the fitting of a maximum of two compasses.
- d. Maximum of 2 inset grabholes as supplied by Comet Dinghies fitted to each cockpit side in the appropriate position.

## **16. DECK FITTINGS.**

- a. No fittings that can be used to control mast, boom, sail or rudder shall be fitted other than the following:-
  - i. Eye fitting for painter on front of foredeck.
  - ii. Three single sheave blocks fitted to standard lacing eyes on foredeck immediately aft of mast hole. Type and pattern of blocks optional.

- iii. Three cleats on aft end of foredeck positioned within 75mm of deck centreline. The type and material is optional but they must retain rope when uncleated.
  - iv. Two mainsheet rope horse fittings fitted in standard position on rear of aft deck.
- b. Toestrap. A single toestrap is permitted. One end securely fastened to cockpit floor immediately forward of Bulkhead C, the other end shall be secured to an adjustable buckle fastened to the cockpit floor immediately aft of Bulkhead B. Padding of the toestrap webbing is permitted.
- c. Additional deck fittings. The following items or fittings may be fitted:-
- i. Compasses. (see Rule 15.c).
  - ii. Retaining clips of eyes for paddle, anchor, warps, storage bag etc.
  - iii. Wind indicator.
  - iv. Gunnel Trim. (see rule 13).
  - v. Two grab rails as supplied by Comet Dinghies fitted to forward cockpit sides in the approved position.
  - vi. A foot rest may be permanently fixed to the floor of the cockpit running along the centreline. The dimensions are not to exceed 25 x 25mm cross section and the leading edge must not be closer than 100mm from the front bulkhead.
  - vii. Eye fitting fitted central to top of bulkhead C with shockcord to hold up rear of toestrap.
  - viii. Eye plate fitted centrally to top of bulkhead B for the purpose of a centre mainsheet block.

## **17. DAGGERBOARD.**

- a. Material. Any material allowed.
- b. Profile. Shall conform to Diagram 2.
- c. Width. Maximum 305mm. Minimum 295mm.
- d. Maximum thickness. Maximum 36mm. Minimum 33mm.
- e. Maximum length. Maximum 915mm. Minimum 905mm.
- f. When in the fully lowered position there shall be a minimum of 30mm of blade above the deck level.
- g. Maximum weight. 5kg.

## **18. RUDDERBLADE.**

- a. Material. Any material allowed.
- b. Profile. Shall conform to Diagram 3.
- c. Maximum width. Maximum 230mm. Minimum 225mm.

- d. Maximum thickness. Maximum 25mm. Minimum 22mm.
- e. Depth of blade when fitted to boat and in lowered position. Maximum 485mm. Minimum 475mm. (see Diagram 3).

**19. RUDDER STOCK AND TILLER.**

- a. Shall be of standard type as supplied as original equipment on Comet.
- b. Rudder uphaul and downhaul shall be optional.

**20. TILLER EXTENSION.**

- a. Length and type optional. Telescopic extending type permitted.

**21. HULL WEIGHT.**

- a. Condition during weighing:-
  - i. All external and internal surfaces shall be dry, to the satisfaction of the Measurer.
  - ii. No fitting shall be weighed with the hull unless it is securely bolted, screwed, bonded or otherwise fixed to the boat as permanent equipment to be carried when racing. Fittings not listed in Rule 12 and 16.a shall not be included in the measured weight.
  - iii. Items excluded from measured weight:- spars, sail, rudder, daggerboard, ropes, detachable blocks and detachable items listed in Rule 16.c.
- b. Minimum weight. In condition specified in Rule 21.a:- 46kg.
- c. Weight correction. Hulls weighing less than the permitted minimum shall be made up to the permitted minimum by weight correctors of any material, but of a total weight not exceeding 5kg. Weight correctors shall be fitted to centre of Bulkhead B.
- d. Reduction of weight correction. Shall not be permitted without an official re-weighing.
- e. Record of weight correction. Weight correctors shall be weighed separately and their weight entered on the Measurement Certificate.
- f. Changing weight. Any permitted alterations to the hull or fittings resulting in a change of weight shall require an official re-weighing.

**22. SPARS.**

- a. The mast and boom shall be constructed of the materials required by the official specifications and the tubing shall not be altered by cutting, etching, sleeving, plugging or drilling except for the attachment of permitted fittings as listed in Rules 23.d and 24.b.

### **23. MAST.**

- a. Overall length. When top mast and lower mast are assembled in their operating condition, the overall length including end plugs shall be 6040 +/- 30mm.
- b. Top mast. Length including end plug shall be 3410 +/- 10mm. Tubing size 51 x 1.6mm.
- c. Lower mast. Length including end plug shall be 2850 +/- 20mm. Tubing size 55 x 4mm.
- d. Mast fittings. Only the following fittings shall be permitted:-
  - i. Mast top plug and top lacing eye. Sealed and watertight.
  - ii. Gooseneck fitting positioned 895 +/- 10mm from mast base.
  - iii. Single block fitted immediately below gooseneck.
  - iv. Kicking strap eye 413 +/- 10mm from mast base.
  - v. Bracket for fitment of burgee at top of mast. Must not hinder reefing of the sail and must keep mast top sealed and watertight.
  - vi. Locating rivet/screwhead approx. 220mm from bottom of mast in line with top lacing eye. Locates with cut out on top edge of bottom mast when top and bottom mast are in their operating position.
- e. Permanently bent masts. Prohibited.
- f. Attachments, fittings or devices that may alter the position, rake or height of the mast from the normal designed position, rake or height shall be prohibited.

### **24. BOOM.**

- a. Length including end plug to centre of gooseneck pin hole shall be 2740 +/- 10mm. Tubing size 51mm x 1.6mm.
- b. Boom fittings. Only the following fittings shall be permitted:-
  - i. Gooseneck fitting.
  - ii. Kicking strap fitting 460 +/- 10mm from centre of gooseneck pin hole.
  - iii. Mainsheet fitting 120 +/- 10mm from aft end of boom.
  - iv. Lacing eye and sheave block on extreme aft end of boom.
  - v. Centre mainsheet fitting 1700mm +/- 10mm from aft end of boom.
  - vi. Lacing eye on top of boom 935mm +/- 10mm from aft end of boom.

### **25. SAIL.**

- a. No sail, including replacements, shall be permitted unless purchased when new from a Licensed Builder. All sails shall conform in all significant dimensions, to the patterns held by the designer. The measurements given in Rule 25 conform to these patterns.
- b. Recutting. Sails shall not be recut, resewn or altered other than for bona fide repairs or for the addition of a sail window. Sails shall not be fitted with stiffening patches or additional cringles.

c. Sail sleeve. Shall extend the full length of the luff and the upper and lower ends shall be 90° to the luff. Width of opening when measured flat shall be 100 +/- 10mm.

d. Cringles.

- i. Shall not be more than 32mm in diameter.
- ii. Shall be fitted to tack and clew so that their centres are not more than 40mm from the luff and foot edges of the sail at the clew and not more than 40mm from the foot at the tack.
- iii. Shall be fitted at head of sail with centre of cringle not less than 15mm and not more than 30mm from a line continued aft of the top end of the sail sleeve and as close to the sleeve as possible.

e. Sail battens. Prohibited.

f. Sail colour. All new sails supplied after 1.4.96 to be white with grey mast sleeve, head, clew and tack patches.

g. Sail measurement conditions. The sail shall be dry, smoothed out on an approximately flat surface, with just sufficient tension on the fabric between measurement points to eliminate creases across the line of measurement.

h. Luff measurement. Top forward corner of luff sleeve to lower forward corner of sleeve. Maximum 5030mm. Minimum 4950mm.

i. Foot measurement. Lower forward corner of sleeve to centre of clew cringle. Maximum 2670mm. Minimum 2600mm.

j. Leech measurement. Top forward corner of sleeve to centre of clew cringle. Maximum 5520mm. Minimum 5440mm.

k. Width measurements. Shall be taken as follows:-

- i. Half luff point. Shall be determined by folding so that the top forward corner of the luff sleeve lies directly over the lower forward corner of the luff sleeve, with the two halves of the luff coinciding. The fold so formed indicates the half luff point and shall be marked on the sail.
- ii. Three-quarter luff point. Shall be determined by folding so that the top forward corner of the luff sleeve lies directly over the mark made at the half luff point. (Rule 25 k.i). The fold so formed indicates the three-quarter luff point and shall be marked on the sail.
- iii. Quarter luff point. Shall be determined by folding so that the lower forward corner of the sleeve lies directly over the mark made at the half luff point (Rule 25.k.i). The fold so formed indicates the quarter luff point and shall be marked on the sail.
- iv. Half leech point. Shall be determined by folding so that the top forward corner of the luff sleeve lies directly over the centre of the clew cringle. The fold so formed indicates the half leech point and shall be marked on the sail.
- v. Three-quarter leech point. Shall be determined by folding so that the top forward corner of the luff sleeve lies directly over the mark made at the half leech point. (Rule 25 k.iv). The fold so formed indicates the three-quarter leech point and shall be marked on the sail.

- vi. Quarter leech point. Shall be determined by folding so that the centre of the leech cringle lies directly over the mark made at the half leech point (Rule 25.k.iv). The fold so formed indicates the quarter leech point and shall be marked on the sail.
- vii. Width measurements shall be taken between luff and leech measurement points, over the full width of the sail, including sleeve.
- viii. Width at quarter height. Maximum 2110mm.
- ix. Width at half height. Maximum 1480mm.
- x. Width at three-quarter height. Maximum 800mm.
- xi. Width at head. Measured between points marked on luff and leech at 200mm measured in a straight line from top forward corner of luff sleeve. Maximum 230mm.
- xii. Foot curvature. The foot curvature shall be measured from a straight line between the lower forward corner of luff sleeve and the centre of the clew cringle, to the lower edge of the sail. Measured at 90° to the straight line the foot curvature shall be a maximum of 125mm.

l. Sail window.

- i. One window only shall be fitted.
- ii. Shall be fitted entirely in lower front sail panel.
- iii. No edge shall be less than 30mm from any seam between panels.
- iv. Lowest edge shall not be closer to foot than 150mm.
- v. Distance from lower forward luff sleeve to front of window. Minimum 700mm.
- vi. Distance from lower forward luff sleeve to aft edge of window. Maximum 1400mm.

m. Sail emblem. Shall be in accordance with the official plans. Shall be bright red and fitted back to back on both sides of the sail.

n. Sail numbers. Shall be fitted to both sides of sail in the second panel above the tack. Shall be black, and of the following minimum dimensions:-  
Height 300mm, width 20mm (except the number 1), thickness 45mm.

o. Tell-tales, ribbons, wool or similar wind indicators may be attached to the sail.

## **26. RIGGING.**

a. Mainsheet. Optional aft or centre mainsheet. Aft mainsheet of 2-1 purchase only. Centre mainsheet to start at aft end of boom and mainsheet horse and finish in centre, 2½-1 purchase only. Type and size of blocks and rope shall be optional.

b. Mainsheet horse. Of rope construction only. Tied between two standard mainsheet horse eyes.

c. Kicking strap. Shall not be attached to mast and boom other than to the standard fittings. Construction, type and power of purchase optional.

d. Sail downhaul system. Route of rope and purchase optional.

- e. Sail outhaul system. Route of rope and purchase optional. Type and method of connection to clew is optional. Clew slider around boom shall only be of rope.
- f. No ropes or fittings shall inhibit reefing by winding the sail around the mast after the sail clew has been disconnected from the sail outhaul and clew slider.
- g. The use of any lines, painter or other device to keep the boom outboard when reaching or running. Prohibited.

## **27. BOUYANCY.**

- a. Holes or openings into the buoyancy compartment shall not be permitted except as specified in Rule 11 and 15.
- b. Inspection hatch covers and drain plugs shall be secured in position when racing.
- c. Positive buoyancy of closed cell foam shall be installed between the hull and deck mouldings. It shall be capable of exerting not less than 50kg of lift in fresh water.

## **28. REPAIRS AND REPLACEMENTS.**

- a. Repairs shall be permitted to damaged hulls, decks, daggerboards, rudders, masts and booms, provided that such repairs do not alter shape or characteristics of the component so that its strength or performance is materially affected.
- b. Painting. Hull and deck may be painted if necessary.
- c. Damaged fittings and fastenings. Replacement shall be permitted provided that the replacement fitting is positioned as close as practicable to the original.

## **29. SPECIAL PROHIBITIONS.**

- a. Ballast, whether in the boat or carried by the crew is prohibited.
- b. Any apparatus or contrivance extending outboard from the hull or spars, the purpose or effect of which may be to support or assist in supporting the helmsman outboard or partially outboard. Prohibited.

## **30. CREW.**

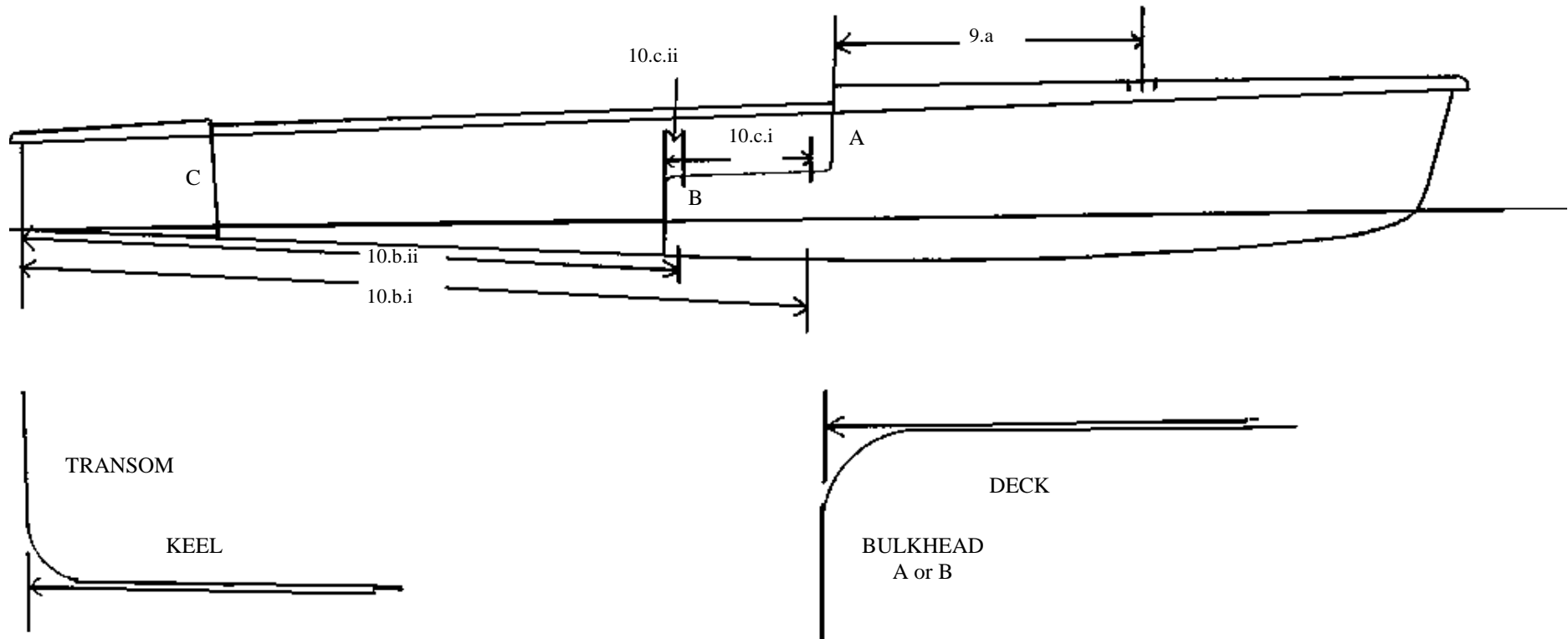
- a. One person only shall normally be in the boat when racing. In races in which exception is made to this rule prior notice shall be published in the sailing instructions.

Revised 27<sup>th</sup> August 2007.

## COMET CLASS RULES

### DIAGRAM 1

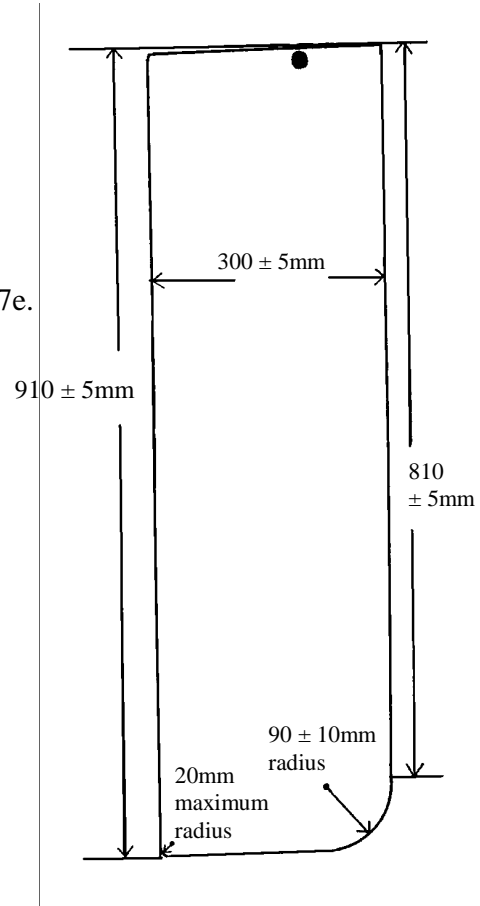
1. This diagram indicates actual points of measurement and refers to the relevant rule in the Class Rules.
2. A, B, C indicate Bulkheads referred to in the Class Rules.
3. All measurements are to be taken by the shortest route along the hull or deck surface.
4. Exact measurement point on Bulkheads or Transom is where a straight line extended from the Bulkhead or Transom intersects the extension of the main deck or hull line.
5. Not drawn to scale.



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DIAGRAM 2

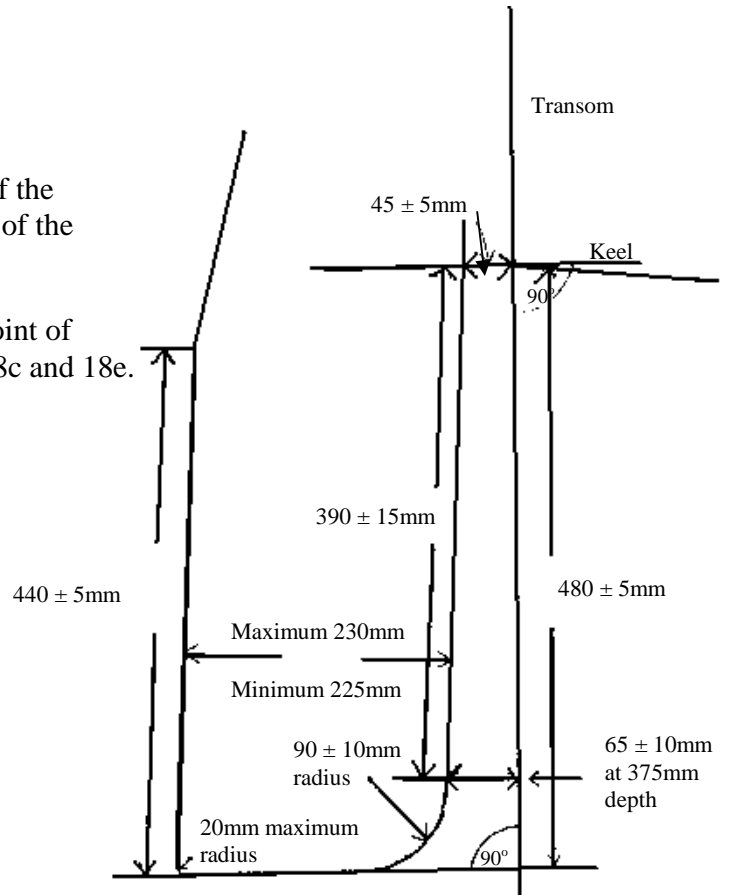
1. This diagram indicates the profile of the daggerboard referred to in rule 17b of the Class Rules.
2. This diagram indicates the actual point of measurement referred to Rules 17C and 17e.
3. Not drawn to scale.



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DIAGRAM 3

1. This diagram indicates the profile of the rudderblade referred to in Rule 18b of the Class Rules.
2. This diagram indicates the actual point of measurement referred to in Rules 18c and 18e.
3. Not drawn to scale.



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DIAGRAM 4

1. This diagram is intended to illustrate various aspects of Rule 25.
2. It should be used as a guide to the Rules and is not a Rule in its self.
3. Not drawn to scale.

