### LEADER CLASS OWNERS ASSOCIATION

#### CONSTRUCTION AND MEASUREMENT RULES

#### INTENTION AND APPLICATION

1. Intention

The Intention of the Construction and Measurement Rules is to ensure racing on even terms within the Leader Class, whilst at the same time maintaining the features of constructional strength, ease of handling and moderate cost.

- 2. <u>Application</u>
- These Construction and Measurement Rules shall come into effect on June 1, 1983 and, except for the provisions of sub-paragraph (ii) hereof, shall supersede the 1975 and 1979 issues. Any amendments or additions hereto shall come into effect ninety days after the date of promulgation.
- ii. All new boats and new sails shall comply with the current Rules. Old boats and old sails shall comply with either the current Rules or with the corresponding Rules applying at the time they were made. Any additions alterations or replacements which affect measurement shall comply with current rules.
- 3. Construction
- i. Three forms of construction are permitted:-
  - (a) GLASS REINFORCED PLASTIC boats (GRP)
  - (b) WOOD boats constructed from solid wood and plywood components
  - (c) COMPOSITE boats having the hull, centreboard case, forward bulkhead, and stern buoyancy compartment made from GRP and with the deck structure, centreboard case capping, kingposts, thwart and side benches (forward and aft) made from solid wood and plywood.
- ii. Boats shall be built in accordance with official plans and specifications. Variations from the official plans and specifications or from the measurements and requirements laid down in these rules shall not be permitted except in respect of running rigging arrangements, tiller and tiller extensions and fittings, unless these are specifically prohibited under Rule 39.
- iii. Only professional builders licensed by the Copyright Holder shall be entitled manufacture constructors kits and/or build Leader dinghies.
- iv. Amateur builders may assemble constructors kits or complete sub-assembled hulls in accordance with the official assembly drawings.
- v. Wood hulls shall be assembled only on building formers approved by the Copyright Holder using standard components and materials which shall comply with the plans and specifications.

- vi. Standard components and materials shall be used in the completion of subassembled hulls.
- vii. Wood/plywood centreboards, rudder blades, masts, booms, jib stickers/spinnaker poles are exempted from the requirement of sub-clauses (iii), (v) and (vi), but shall comply with rules 30, 31, 32, 33, 34.
- viii. Hulls and other components moulded in reinforced plastics shall originate only from moulds derived from master plugs approved by the Copyright Holder.

#### 4. Measurement

- i. Leaders shall comply at all times with the Construction and Measurement Rules and are subject to challenge thereon at any time.
- ii. Tolerances are given in the measurements to accommodate minor building errors or distortion through age. Any intentional deviation from the design or exploitation of the tolerances is prohibited.
- iii. Only measurers individually approved or belonging to groups specified by the Leader Class Owners' Association (LCOA) shall be authorised to measure Leaders and to make the initial buoyancy test; subsequent annual buoyancy tests may be made by Class or Club Buoyancy Testers. Payment for the Measurer's services shall be the responsibility of the owner.
- iv. A measurer shall not be authorised to measure a boat owned or built by himself or in which he has a vested interest.
- v. Measurement shall be carried out using these rules. Two copies of the official Measurement Form shall be completed and sent to the Class Measurement Secretary. The Measurer shall enter on the Measurement Form any deviation from the Rules. In the event of infringement of the Rules the Class Measurement Secretary shall report the matter to the LCOA Committee for consideration as to whether or not a Certificate shall be granted. The LCOA Committee shall be empowered to grant dispensation in respect of unintentional departure in exceptional cases and its decision shall be final; a dispensation shall be recorded on both copies of the Measurement Form. One copy of the Measurement Form shall be retained by the Class Measurement Secretary and the duplicate returned to the owner.
- vi. A Measurement Certificate shall be issued on satisfactory completion of the measurement procedures and payment of the Class Association subscription. It shall remain valid only so long as the owner is a paid member of the Class Association.

Change of ownership shall invalidate the Measurement Certificate but shall not necessitate remeasurement. The new owner shall apply to the Class Association for a new Certificate and shall then pay the transfer of ownership fee and Class Association subscription.

- vii. No boat shall race as a Leader unless it has a valid Measurement and Buoyancy Certificate
- viii. To be valid, a Certificate shall have a buoyancy test endorsement dated within the previous twelve months.
- ix. The owner shall be responsible for seeing that the Measurement Certificate is not invalidated from any cause.

#### 5. Alterations

The making of alterations affecting the scantlings or structure of the boat or its components is prohibited with the exception of doublers patches or tingles for repairs and/or reinforcement pads for fittings.

#### 6. Disclaimer

The Committee of the Leader Class Owners' Association, the Designer of the Leader and the Copyright Holder of the leader design accept no responsibility in respect of these rules or any claim arising therefrom.

<u>HULL</u>

PART A – HULL MEASUREMENTS CONVENIENTLY TAKEN WITH BOAT THE RIGHT WAY UP

Rules 7 to 10 - applicable to all boats 7. Length overall (NB: rake of transom 1 1/2 " (39), excluding rudder fittings) 14 '0 " ± 1" (4267mm ± 26) 8. Length at tiller port, outside transom to forward face of aft bulkhead  $1' 9 \frac{3}{4}" \pm \frac{1}{2}" (553 \pm 13)$ 9. Length at tiller port, outside transom to aft edge of thwart  $6' 3\frac{3}{4}" \pm \frac{1}{2}"$  (1924 ± 13) 10. Length at tiller port, outside transom to aft face of forward bulkhead.  $10' 1 \frac{3}{4}" \pm \frac{1}{2}" (3093 \pm 13)$ Rules 11 to 22 - applicable to WOOD boats only EXCEPT where marked '(C)' to COMPOSITE boats and '(G)' to Glass Reinforced Plastic Boats. 11. Measurement at outside transom: a) beam at lower edge of outer gunwhales to outside skin  $3' 8 \frac{1}{2}" \pm \frac{1}{2}"$  (1131 ± 13) b) beam at angle of upper chines to outside skin  $3' 3 \frac{1}{2}" \pm \frac{1}{2}" (1004 \pm 13)$ c) Beam at angle of lower chines to outside skin  $2' 4 \frac{1}{2}" \pm \frac{1}{2}" (724 \pm 13)$ d) Depth, lower edge of outer gunwhale to top of keel 1 ' 0 ¼" ± 3/8" (312 ± 10) e) Depth, angle of upper chines to top of keel  $5\frac{3}{4}$ " ± 3/8" (146 ± 10) f) Depth, angle of lower chines to top of keel 1 <sup>1</sup>⁄<sub>4</sub>" ± 3/8" (32 ± 10) 12. Measurements at forward face of aft bulkhead: a) Beam, inside skin at lower edge of gunwhales (C)  $4' 4'' \pm \frac{1}{2}'' (1321 \pm 13)$ b) Beam, inside skin at upper edge of upper chine stringers  $3' 9 \frac{1}{2}" \pm \frac{1}{2}" (1156 \pm 13)$ 

c) Beam, inside skin at upper edge of lower

	chine stringers	3 ' 0 ½" ± ½" (920 ± 13)
d)	Depth, top of after deck to top of hog	11 <sup>3</sup> ⁄ <sub>4</sub> " ± 3/8" (299 ± 10)
e)	Width of topside panel on inner face lower edge of gunwhale to upper edge of upper chine stringer (where it joins the skin)	8 ¼" ± 3/8" (210 ± 10)
f)	Width of bilge panel, lower edge of upper chine stringer (where it joins the skin) to upper edge of lower chine stringer (where it joins the skin)	5 ¼" ± 3/8" (134 ± 10)
g)	Width of bottom panel, lower edge of lower chine stringer (where it joins the skin) to edge of hog	1' 2" ± 3/8" (356 ± 10)
13. <u>M</u> e	easurement at aft edge of thwart;	
a)	Beam, inside skin at lower edge of gun- whales (C)	5 ' 3 ½" ± ½" (1613 ± 13)
b)	Beam, inside skin at upper edge of upper chine stringers	4 ' 6 ½" ± ½" (1385 ± 13)
c)	Beam, inside skin at upper edge of lower chine stringers	3 ' 6 " ± ½" (1067 ± 13)
d)	Depth, top of gunwhale to top of hog	1 ' 7 ¾" ± 3/8" (502 ± 10)
e)	Width of topside panel on inner face, lower edge of gunwhale to upper edge of upper chine stringer (where it joins the skin)	1 ' 0 3/8" ± 3/8" (315 ± 10)
f)	Width of bilge panel, lower edge of	
	upper chine stringer (where it joins	
	the skin) to upper edge of lower chine	
	stringer (where it joins the string)	6 ½" ± 3/8" (156 ± 10)
g)	Width of bottom panel, lower edge of	
	lower chine stringer (where it joins the	
	skin) to edge of hog	1 ' 5 ½" ± ½" (445 ± 13)

# 14. <u>Measurement at aft face of forward bulkhead</u> (forward buoyancy compartment):

a)	Beam, inside skin at lower edge of gun- Whales (C)	4 ' 1 ¾" ± ½" (1264 ± 13)
b)	Beam, inside edge at upper edge of upper chine stringers	3 ' 5 ¾" ± ½" (1061 ± 13)
c)	Beam, inside skin at upper edge of lower chine stringers	2 ' 7" ± ½" (788 ± 13)
d)	Depth, underside of deck to top of hog	2 ' 0 ½" ± 3/8" (623 ± 10)
e)	Width of topside panel on inner face, lower edge of deck to upper edge of upper chine stringer (where it joins the skin)	1 ' 0 ¼" ± 3/8" (312 ± 10)
f)	Width of bilge panel, lower edge of upper chine stringer (where it joins the skin) to upper edge of lower chine stringer (where it joins the skin)	6" ± 3/8" (153 ± 10)
g)	Width of bottom panel, lower edge of lower chine stringer (where it joins the skin) to edge of hog	1 ' 0 " ± 3/8" (305 ± 10)
h)	Diameter of inspection cover holes (C),	3 ½" min (90) "ح
	(6)	(179) max
i)	Boats with 'low level' forward buoyancy tanks are exempted from Clauses (a) to (h) of this rule but shall conform to the following measurements: (a) Width of hatch opening:	1 ' 2 ½" ± ½" (369 ± 13)
	(b) Depth of hatch opening:	9 ¾" ± ½" (239 ± 13)
	Alternatively, the hatch cover shall be permanently secured in a watertight manner and circular inspection covers fitted, one in the starboard and one in the port bulkhead with centres within 6" of upper edges of those bulkheads and within 8" of the centre line	
	Diameter of inspection covers	3 ½" (90) min 7" (179) max

Four floor battens – one each of lengths 2' 3  $\frac{1}{2}$ " (699), 4'3" (1296), 6'11" (2109), 6'9" (2058)  $\pm \frac{1}{2}$ " (13), all of width 1  $\frac{3}{4}$ "

<ul> <li>± 1/8" (45 +-4) and minimum thickness 5/16"</li> <li>(8), shall be glued to the bottom panel on each side, parallel to the hog. The edges may be rounded to a radius not exceedin their thickness.</li> </ul>	g	
<ul><li>16. <u>Centreboard case (C) (G)</u></li><li>a) Internal width</li></ul>	1" + 1/8" (26 + 4) - 1/16" (	
b) Overall width at forward edge of thwart	2 3/4" minimum (70)	
<ul><li>16/1 Centreboard bolt (C) (G)</li><li>a)Centre of bolt to outside of transom measured along keel</li></ul>	8 ' ± 1/2" (2438 ± 13)	
b)Centre of bolt to underside of keel:	4 1/2" ± 1/4" (115 ± 7)	
17. <u>Thwart</u> a)Height of upper surface, above hog	1' 2.3/8" ± ½"(2438± 13)	
b)Width (C)	4 ½" ± ¼" (115 ± 7)	
18. <u>Side benches (C)</u> Side benches, two slats 3 ¼" ± 3/8" (86 ±10) x 11/16" ±1/16" (18 ±2) shall be fitted between forward carlin and seat knee and thwart. Minimum plan width 7" (178)		
<ul> <li>19. <u>Foredeck</u></li> <li>a) Stemhead to aft edge of foredeck at centreline (C)</li> </ul>	4 ' 5 1/2" ± 1/4" (1359 ± 19)	
<ul> <li>b) Stemhead to extreme aft edge of foredeck at outer gunwhale (C)</li> </ul>	6 ' 4 1/2" ± 3/4" (1943 ± 19)	
20. Mast pivot (C) (G) The position of the centre of the pivot hole in the kingposts shall be 4'6 $\frac{3}{4}$ " +- $\frac{3}{4}$ " (1391 ±19) from the stemhead, and 1'5 $\frac{1}{2}$ " ± $\frac{1}{2}$ " (445 ± 13) from inside skin measured vertically on the outer faces of the kingposts.		
<ul> <li>21. <u>Aft buoyancy Compartment</u> <ul> <li>a) width of hatch opening</li> <li>(i) "</li> </ul> </li> <li>b) depth of hatch opening</li> <li>(i) "</li> <li>c) Diameter of inspection cover hole (C) (G)</li> <li>Alternatively the hatch cover shall be permanently secured in a watertight manner</li> </ul>	1 ' 2 ½" ± ½" (369 ± 13) Leader II only: 21.75" maximum (552.5) 9.3/8" ± ½" (239 ± 13) Leader II only: 13.5" maximum (343) 12" maximum (305) 4" minimum (12)	

and a circular inspection cover fitted into it. Diameter of inspection cover 3 ½" (90) min. , 7" (179) max.		
<ul> <li>22. <u>Gunwhale</u> The gunwhale (inclusive of sheerbead) between forward carlin and transom shall be of moulded section not less than 2 <sup>3</sup>/<sub>4</sub>" x 1" (70 x 26), nor more than 3" x 1 1/8" (78 x 30) with thickness outside skin not exceeding 1 <sup>1</sup>/<sub>2</sub>" (3) (C).</li> </ul>		
<ul> <li>23. <u>Shroud plates (C) (G)</u></li> <li>a) Minimum distance from stemhead to centres of pinholes</li> </ul>	5 ' 11 " (1804)	
<ul> <li>b) Minimum distance athwartships between the line of the shrouds at deck level (deck level to be taken as the point of measurement)</li> </ul>	4 ' 7 " (1397)	
24. Applicable to GLASS REINFORCED PLASTICS boats only		
Beam overall:- a) At 1'9 ¾" (553) from outside transom	4 ' 8 " ± ½" (1424 ± 13)	
b) At 6'3 ¼" (1924) from outside transom	5 ' 7 " ± ½" (1702 ± 13)	
c) At 10 ' 1 ¾" (3093) from outside transom	4 ' 5 ¼" ± ½" (1354 ± 13)	

PART B – HULL MEASUREMENTS CONVENIENTLY TAKEN WITH THE BOAT UPSIDE DOWN.

Rules 25 to 27 applicable to WOOD boats only EXCEPT where marked '(C) to Composite Boats and '(G)' to Glass Reinforced Plastic Boats.

### 25. Centreboard slot (C), (G)

a)	Forward end to outside transom measured along keel	8 ' 6 ¾" ± 1" (2591 ± 26)
b)	Aft end to outside transom, measured along keel	4 ' 6 " ± 1" (2591 ± 26)
c)	Width	1" + 1/8" (26 + 4) 1/16" ( - 2)
26. <u>Ke</u>	<u>el</u>	
Th of	e keel shall be parallel for the length the centreboard slot and of minimum exposed	

of the centreboard slot and of minimum exposed width 2  $\frac{1}{4}$ " (58); forward to be tapered to a fairing with stem, aft to be tapered to a minimum exposed width at transom of 1⁄2" (13) :-

a) Exposed depth

3/8" minimum (16)

b) Keelband shall be fitted for the entire length of keel and stem and on both sides of the centreboard slot, maximum thickness ¼" (7), maximum width ½" (13) (C) (G).

27. Bilge keels

Edges may be rounded to a radius not exceeding 3/8" (10):-

a) Length 1 ' 6 " ± 1 (1372 ± 26)
b) Width 7/8" ± 1/8" (23 ± 4)
c) Thickness ½" minimum (13)

### PART C – GENERAL Rules 28 to 41 applicable to all boats

# HULL WEIGHT

- 28. The weight of the hull in dry condition shall be not less than 245 1b (111.125 kg) including the keelband, fittings required for the working of the boat (and permanently fixed to the Hull by screws, rivets, bolts or adhesives) protective finish, centreboard, hatch or inspection covers and correctors (if required), but excluding rigging, rudder, tiller, spars, sails, blocks and all other loose gear. If a boat weighs less than 245 1b (111.125 kg) correctors weighing not more than 15 1b (6.803 kg) shall be fastened to the underside of the thwart, to make up the required weight. The correcting pieces shall be weighed separately and their total weight entered on the measurement form. Any alterations to the correcting pieces shall render the boat's certificate invalid.
- 29. <u>Re-weighing</u>

If the Hull is found to be overweight, after having been in use for some time, it may be officially reweighed in a dry condition (which is defined as having been out of the water, dried out, and in a dry place for a period of four weeks or longer) with the correcting pieces reduced or removed to compensate for the increased weight but none of the dimensions or scantlings mentioned in these rules may be reduced. Applications shall be made in the normal way for a new Certificate.

#### CENTREBOARD AND RUDDER BLADE

30. <u>The centreboard</u> shall be plywood or solid timber, the edges may be protected by metal bands which shall not be more than <sup>1</sup>/<sub>4</sub>" (7) thick.

a) Thickness

<sup>3</sup>⁄<sub>4</sub>" + 3/16" (19 + 5) - 1/16" (19 - 2)

- b) Chamfer not to extend from any edge more than 3" (77)
- 31. <u>The rudder blade</u> shall be plywood or solid timber, the edges may be protected by metal bands which shall not be more than <sup>1</sup>/<sub>4</sub>" (7) thick.

a) Thickness 3/4" + 3/16" (19 + 5) - 1/16" (19 -2)

b) Chamfer not to extend from any edge more than 3" (77)

#### <u>SPARS</u>

- 32. Mast may be of metal or wood
  - a) The weight of the mast, inclusive of fittings shall not be less than:-
    - (i) Metal
       (ii) Wood
       15 1b ( 6.803 kg )
       18 1b ( 8.160 kg )
  - b) The height of centre of gravity of mast inclusive of fittings shall not be less than 9'6" (2896) from butt.
  - c) The mast pivot shall be used to secure the mast. The position of the centre of the pivot hole in the mast from the butt shall be  $5 \frac{1}{4} \pm \frac{1}{4} (134 \pm 7)$
  - d) The mast may be braced by one pair of spreaders going to the shrouds; these shall be positioned on the mast at between 8'4" and 9'6" from the butt. Diamond stays shall not be permitted.
  - e) Bands of a distinctive colour shall be marked on the mast as follows:

Number 1 – whose upper edge shall be 2'8  $\frac{1}{2}$ " (826) above the butt of the mast. The luff of the mainsail shall not extend below this point.

Number 2 – whose lower edge shall be 18' (5488) above the upper edge of Number 1. The luff of the mainsail shall not extend above this point.

f) The point of intersection of the forestay with the mast shall be  $15'3 \frac{3}{4}$ "

 $\pm \frac{3}{4}$ " (4668  $\pm$  19) above the butt of the mast. The jib haliard shall intersect the mast below this point.

g) The spinnaker haliard shall be suspended from a bearing point not more than 15'6" (4725) above the butt of the mast, not more than 2" (51) from the forward face of the mast.

#### 33. <u>Boom</u>

May be of wood or metal and shall be able to pass through a 4" (102) ring.

A band of a distinctive colour shall be marked on the boom so that its inner edge is 8'10  $\frac{3}{4}$ " (2712) from the aft face of mast when assembled on gooseneck. The foot of the mainsail shall not exceed beyond this point.

#### 34. Jib stick and/or spinnaker pole

The maximum overall length, inclusive of fittings, shall be 6'0" (1829), and the mast fittings for these shall not protrude more than  $1\frac{1}{4}$ " (32) from the mast. When racing, the simultaneous use of jib stick and spinnaker pole is prohibited.

# SAILS

35. a) (i) Sails shall be measured in accordance with the sail measurement instructions of the IYRU unless the Class Rules specify a different method.

(ii) Each sail shall be measured by an approved measurer who shall sign and date it near the tack.

(iii) Sails shall be of woven material and be capable of being stowed completely in a normal sailbag

#### b)Mainsail

When measured the sail shall be in a dry condition and laid out on a flat surface smoothed out with sufficient tension to remove wrinkles across the line of measurement. Width measurement shall be taken over the full width including roping and any hollows in the leech shall be bridged by straight lines.

When hauled out hand-taut the luff measured between centres of head and tack cringles shall not exceed 18'0" (5488), the foot measured between centre of tack and clew cringles shall not exceed 8'9" (2668), the leech measured between centres of head and clew cringles shall not exceed 19'9" (6021). The width of the headboard measured at right angles to the luff shall not exceed 4" (102). The width of the sail at half height shall not exceed 6' 1  $\frac{1}{2}$ " (1869) and the width at three quarter height shall not exceed 3'7" (1093).

To determine the half luff point, the head cringle shall be placed over the tack cringle with the two halves of the luff coinciding; the fold so formed indicates the half luff point which is marked on the sail. To determine the three-quarter luff point the sail shall be folded so that the centre of the head cringle lies directly over the mark at the half luff point. The half and three-quarter leech points shall be determined in a similar manner by placing the head cringle over the crew cringle. Three battens are permitted dividing the leech into approximately equal parts; maximum length of top batten 2'6" (762), remainder 3'0" (915), maximum width 2" (51).

### c. <u>Jib</u>

When hauled out hand-taut the luff measured between centre of head and tack cringles shall not exceed 12'1" (3683), the foot measures between centre of tack and clew cringles shall not exceed 6'10" (2083), the leech measured between centres off head and clew cringles shall not exceed 12'2  $\frac{1}{2}$ " (3722); no part of the leech or foot of the jib shall lie more than 6" (153) outside a straight line drawn between the outer edges of the relevant cringles when the sail is laid out flat and the creases are smoothed out. No battens are permitted.

d) Spinnaker (including asymmetric - section vii below)

- (i) The spinnaker shall be three-cornered and symmetrical about its centre line which passes through the centres of the head cringle and the foot; it shall have no stiffening other than the usual fabric reinforcement. Fabric reinforcement used at the head of the sail may be close-seamed and extended for a maximum of 8" (204) radius from the centre of the head cringle.
- (ii) When measured the sail shall be in dry condition and folded about its centre line with the tack and clew cringles placed on top of one another and laid on a flat surface with just sufficient tension to remove wrinkles along the luffs, the centre fold and the foot of the sail.
- (iii) The maximum length of the luffs shall be 14' 0" (4268)
- (iv) The maximum length of the sail from the centre of the head cringle to the centre of the foot measured along a straight line shall be 14' 9" (4496).
- (v) The width at half height shall be 9'0'' + 0'' (2744 + 0)

- To determine the half height points the head cringle shall be placed over the tack and clew cringles with the two halves of the centreline coinciding; the fold so formed indicates the half luff point.
- (vi) The width at the foot shall be  $8'8" \pm 1"$  (2642  $\pm 26$ )

The half width measurement at the foot shall be taken from the centre of the tack and clew cringles to the centre point of the foot.

- (vii) An asymmetric spinnaker may be used instead of a traditional spinnaker and shall not be greater in area than the traditional spinnaker specified above. An asymmetric spinnaker may be launched via a spinnaker shoot.
  - e) Class Insignia and Sail Colours and Class Number
- (i) The motif (as drawn on the plans) in black shall be carried below a blue panel approximately 4'0" (1220) deep extending across the mainsail from the luff to leech. The remainder of the mainsail and the jib shall be white.
- (ii) Class numbers, in figures not less than 12" (305) high in black shall be displayed on both sides of the mainsail below class insignia.
- (iii) Class numbers, in figures not less than 12" (305) high in black or white in contrast to the colour of the sail shall be displayed on both sides of the spinnaker at approximately half height.

f) Any number of sails may be owned providing that all sails used for racing have been measures, signed and dated by the measurer near the tack. When racing, not more than one mainsail, one headsail and one spinnaker shall be carried in the boat.

# MISCELLANEOUS

## 36. Class Number (Hull)

- a) (i) Wood the Class Number shall be carved on the forward face of transom beam on the port side in figures not less than 1" (26) high.
  - (ii) (C), (G) the Class Number shall be permanently displayed in figures not less than 1/8" (4) high on a plate mounted on the forward face of transom beam on the port side.

### 37. BUOYANCY

### 37.1 Buoyancy Compartments

- a) The buoyancy compartments shall be watertight but the forward bulkhead shall be fitted with inspection hole covers as specified in Rule 14 and the after deck with hatch opening of inspection hold covers as specified in Rule 21. In addition both bulkheads and transom may be fitted with not more than two drain holes of maximum diameter 1" (26) and the after bulkhead and transom may each be fitted with two circular scuppers. These shall be 4" ± ¼" (102 ± 7) in diameter. They shall be spaced at 1' 4 ½" ± ½" (419 ± 13) centre to centre and shall be equi-distant from the centre line of the boat. The edge of the holes shall at no point be less than 2" (51) from the underside of the hull. The hatch/inspection covers shall be secured in position and the drain holes effectively stoppered when the boat is in the water.
- b) Composite and reinforced plastics boats shall have rigid non-communicating aircell foam plastics (foam buoyancy) attached as follows:-

# (i) <u>Composite</u>

In the forward buoyancy compartment – not less than 1.25 cu ft (0.036 cu m)

In the after buoyancy compartment – not less than 1.25 cu ft (0.036 cu m )

 (ii) <u>GRP – Leader I</u> In the forward buoyancy compartment – not less than 1.25 cu ft (0.036 cu m)

In the after buoyancy compartment – not less than 1.25 cu ft (0.036 cu m)

Under each forward side bench – not less than 0.80 cu ft (0.023 cu m )

 (iii) <u>GRP - Leader II</u> In the forward buoyancy compartment – not less than 1.25 cu ft (0.036 cu m)

In each side buoyancy compartment – not less than 1.50 cu ft (0.042 cu m)

c) Buoyancy equipment in excess of that specified in Rules 37.1 (b) (i) and 37.1 (b) (ii) shall be permitted but shall be removed before carrying out the wet buoyancy test in Rule 37.2 (b).

#### 37.2 Buoyancy testing

- a) The boat shall be maintained so that it will at all times pass the approved test, which shall be made at not more than twelve-month intervals and the Measurement Certificate endorsed at that time.
- b) <u>Wet Buoyancy Test</u>
  - (i) Excess buoyancy equipment permitted under Rule 37.1 (c) shall be removed.
  - (ii) With the mast stepped but with sails, boom, rudder, tiller and all loose gear removed, the boat shall float approximately level when completely waterlogged while supporting a minimum crew weight of 250 1b (113.4 kg) between mast and aft bulkhead and not immersed above the knees, for a period of ten minutes.

The waterlogged boat shall be floated on its beam ends with the mast approximately horizontal, both to port and starboard, whilst supporting a crew weight of 250 1b (113.4 kg) for a period of five minutes on each side. For this test, the mast may be supported above its top black band. Measures shall check all watertight joints and satisfy themselves that they are efficient and that hatch/inspection covers are adequately watertight and that foam buoyancy as specified in Rule 37.1 (b) is fitted. The buoyancy compartments shall be inspected for leakage;

Leakage in excess of 1 gallon (4.537 litres) in the forward buoyancy compartment and 1/2 gallon (2.268 litres) in the aft/side buoyancy compartments after twenty minutes buoyancy test, shall be regarded as being excessive.

c) <u>Dry Buoyancy Test (alternative to 37.2 (b) – see separate notes)</u>

Hatches/inspection covers shall be closed using only the boat's own hatch covers and fasteners/ inspection covers. Drainage holes in buoyancy compartments shall be closed using their normal stoppers except where tubes to a pressure/vacuum source and gauge are connected. Equipment for producing and assessing pressure differentials between the buoyancy compartment and surrounding atmosphere and including a U-tube water gauge shall be connected to the compartment. Super atmospheric or sub-atmospheric pressure shall be applied to the compartment sufficient to produce a differential reading of at least 5" (127) on the water gauges. After isolating the buoyancy compartment from the vacuum or pressure source, the pressure differential shall not reduce from 5" (127) to 2" (51) in less than thirty seconds.

### 38. Prohibitions

The following are prohibited: inside ballast or ballast carried by the crew; centreboard winches; halyard winches; mast jacks; roller reefing jibs; shroud levers; centre mainsheet horse or track; any arrangement of mainsheet incorporation more than a single purchase tackle or its equivalent power gain between the boom and the hull at

any position forward of the transom; any apparatus or contrivances extending outboard from the hull, spars or rigging, or attached to the crew, the purpose or effect of which is or may be to support or assist in supporting a member of the crew outboard or partially outboard; projections beyond the skin other than bilge keels, gunwhales and sheerbeads, stem and keelbands, stemhead fitting, rudder fittings, suction bailers and drain plugs.

### 39. Racing Crew

- a) Two or three persons
- b) In official Leader Class Open Meetings or Championships:-
  - (i) The boat shall be entered by a member of the Leader Class Owners' Association and the helm shall be a Full or Associate member of the Association.
  - (ii) No change of helm shall be permitted except in the case of accident or illness, to the Race Committee's written authorisation.

#### 40. Code Signal

International Code Flag 'L' is recommended.

#### 41. Measurement Certificate

No boat is entitled to race as a leader without a valid Measurement Certificate, which may be obtained from the Measurement Secretary or receipt of a measurement form properly completed by an RYA Measurer, or an official Class or Club measurer. The measurement certificate will remain valid only as long as the boat continues to comply with these rules and if Rules 28 and 37 are observed. The owner of the boat is responsible for seeing that the Measurement Certificate is not invalidated from any cause.

### 42. Change of Ownership

The Measurement Certificate is invalidated by change of ownership. The new owner shall apply to the Measurement Secretary for a fresh Certificate forwarding the old registration certificate and a copy of the Measurement Form.

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