

Measurement Rules

1. Introduction

1.1 The 2000, formerly known as the Laser 2000, was created as a strict one design dinghy where the true test when raced is between crews and not boats and equipment. The fundamental objective of the 2000 Class Measurement Rules ('The Rules') is to provide the governance which allows the strict one design concept to be maintained.

1.2 Unless specified otherwise in these Rules, the use of the term '2000' shall be deemed to include boats manufactured under the name 'Laser 2000'.

1.3 Unless specified otherwise in these Rules, 2000 hulls, hull appendages, rigs and sails are as supplied by a Licensed Builder.

1.4 These Rules are closed class rules, whereby anything not specifically permitted by these Rules is prohibited.

1.5 The official language of the Class is English.

2. Fundamental Rules

2.1 The 2000 shall be raced only with hull, mast, spinnaker pole, sails, battens, centreboard, rudder system, tiller fittings, equipment, standing rigging and running rigging conforming to these Rules.

2.2 No additions alterations or repairs may be made to any part of the boat including the hull, mast, boom, spinnaker pole, sails, battens, centreboard, rudder system, tiller fittings, equipment (including location), standing rigging or running rigging supplied by a Licensed Builder (see Clause 3.1) except when such an addition, alteration or repair is specifically authorised by these Rules (see Appendix 2).

2.3 Replacement of the hull, mast, boom, spinnaker pole, sails, battens, centreboard, rudder system, tiller, fittings, equipment (including location) standing rigging and running rigging shall only be from parts supplied by a Licensed Builder unless such replacement from another supplier is specifically authorised by these Rules (see Appendix 2).

2.4 Where replacement, alteration or repairs are authorised by these Rules, these shall be carried out using materials of construction and in a manner that gives no weight or other advantage.

2.5 The modification of existing boats in line with the specification and supply of current production boats shall be permitted, as shall the modification of current boats in line with the specification and supply of earlier production boats.

2.6 The Licensed Builder is required to build boats that are as similar as practical and shall not introduce any changes to the detail design or fit-out of the boat that might have an impact on compliance with these Rules without first consulting with, and receiving agreement from, the Copyright holder and the Class Association.

3. Definition of Builders and Hull Identification

3.1 The builders of the 2000 shall be only those licensed by the Copyright holder, after consultation with the 2000 Class Association.

3.2 Each 2000 shall have a Builder's hull identification plaque incorporating the boat sail number fixed in the rear of the cockpit.

4. Measurements

4.1 The 2000 shall conform to these Rules. All equipment shall be as originally or currently supplied by a licensed builder or as hereinafter prescribed in these Rules.

4.2 In the case of a measurement dispute not explicitly covered by these Rules then a sample of five sailboats or, if appropriate a sample of five items, not the subject of the measurement dispute shall be taken and measured using identical techniques. The dimensions of the disputed sailboat or item shall be compared to the measurements taken from the sample and if the sailboat or item is outside the maximum or minimum dimensions obtained from the sample by more than 10% then the matter, together with details of the measurement methods and any other relevant information shall be referred to the Technical Committee of the Class Association whose decision shall be final and binding on all parties.

4.3 In the event of any other dispute alleging non-compliance with these Rules, the matter,

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together with any relevant information shall be referred to the Technical Committee of the Class Association whose decision shall be final and binding on all parties.

4.4 General queries regarding these Rules may also be referred to the Technical Committee of the Class Association.

4.5 The procedure for seeking a ruling from the Technical Committee is as follows:

- a) The query together with any supporting information should be forwarded to the Technical Committee with copy to the Secretary
- b) The Technical Committee shall endeavour to acknowledge receipt of the query within seven days.
- c) For simple queries the acknowledgment may include the ruling.
- d) For more complex queries the acknowledgment shall include an indication of the time required to consider the matter, ideally no more than one calendar month.
- e) The Technical Committee will consider the matter and, if necessary, may consult with the Copyright holder and/or Licensed Builder.
- f) The originator(s) will be advised of the ruling.
- g) If no further queries arise within seven days then the ruling will be published on 2000 Class Association web site.
- h) If necessary, the Measurement Rules will be updated to reflect the ruling at the earliest opportunity.

5. Sailing Requirements

5.1 The 2000 shall be raced with a minimum of 2 persons on board.

5.2 No person is permitted to race a 2000 in any National Championship, Inland Championship, Traveller's Circuit or any other event sanctioned by the Class Association unless either the helm or crew is a current member of the Class Association, or an affiliate of an organisation holding Corporate or Group Membership of the Class Association.

However, for the purpose of this rule, individual membership is deemed to include that member's partner and any children under the age of 21 in full time education, but such membership shall only cover the entry of one boat into an event at any one time. The entry of another boat shall require another membership.

5.3 Whilst racing the 2000 it shall be equipped and rigged in accordance with these Rules.

5.4 Jib sticks & whisker poles are not permitted whilst racing.

5.5 The use of a trapeze system is not permitted whilst racing and all component parts of the system must be removed.

5.6 Sail numbers shall be displayed on the mainsail in accordance with the instructions provided in Appendix 1.

6. Race Management

6.1 The Class Association may from time to time prescribe rules or amendments altering or qualifying the current ISAF rules where permitted.

6.2 Races sanctioned by the Class Association shall only be sailed if, in the view of the Race Committee, there is sufficient wind. For guidance, races should not be started unless the Race Committee is satisfied that the average wind strength in the starting area, and to the best of its belief on the rest of the course, is in excess of 4 knots for a reasonable period before the start.

6.3 Races sanctioned by the Class Association shall not be started or continued in excessive wind. As a guideline, 'excessive wind' is wind consistently over 25 knots, or any other combination of wind and wave conditions that the Race Committee considers excessive.

6.4 The Race Committee shall be the sole judge of wind speed and wave conditions and may postpone racing or abandon if the prevailing conditions are considered unsafe to continue.

7. Amendments

7.1 Amendments to these Rules may be proposed at the sole discretion of the 2000 Class Association.

7.2 Amendments to these Rules shall be approved by the Copyright holder, the Licensed Builder and a two-thirds majority of members, either:

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- a) In General Meeting, or:
- b) In response to a postal vote published by the Secretary of 2000 Class Association. Only those postal votes returned to the Secretary in writing or in electronic form within three months from the date of publication of the rule changes shall be valid.

Version	Date	Author	Comments
1.0	18.09.1999	Tony Slade	Original issue ratified at 1999 AGM.
2.0	01.07.2000	Tony Okotie	Section 4 updated to include masthead flotation devices and additional turning blocks for the spinnaker halyard. Clause 6.1 revised: Minimum crew of two required when racing.
2.1	01.07.2003	John Cox	Electronic compass allowed.
3.0	12.08.2009	Andy Baldwin	Appendices 1–3 added. Sail Number Fixing Instructions added as Appendix 1. Permitted Placements, Additions, Alterations and Repairs moved to Appendix 2. Interpretations added as Appendix 3. Recommendations for minimum and maximum wind speeds added. Amendment procedures revised.
3.1	12.03.2011	Andy Baldwin	Fundamental Rule 2.5 added, Sailing Requirement Rule 5.3 deleted. Appendix 2 Rule 3e amended, 3p added. Rule 4 now includes foils. Appendix 3 Interpretations 7 & 8 added.
3.2	01.11.2012	Andy Baldwin	Definition of Builder Clause 3.1 corrected as per Constitution Clause 3(e). Appendix 2 Rule 4 amended to include repair of sails, Appendix 2 Rule 7 added
4.0 Draft 9	16.07.2013	Andy Baldwin	Laser 2000 replaced by 2000. Rules 1.2, 1.3, 1.4, 2.6, 4.4, 4.5, 5.4 and 5.5 added. Rules 1.1, 1.4, 3.1, 4.2, 4.3, 5.2, 7.1 and 7.2 revised. Appendix 2 Rules 1, 2 and 3 revised, interpretations incorporated. Rule 9 inserted. Appendix 3 Interpretations Clause 1-5, 6-8 incorporated within main rules.
4.09	05.08.2013	Jenny Macgregor	Changes proposed in 4.0 draft 9 accepted at AGM.
4.1	13.01.2016	Jenny Macgregor	Appendix 2, clauses (q) and (r) added.
4.1	27.04.2016	Jenny Macgregor	Appendix 2, clause (q) amended.

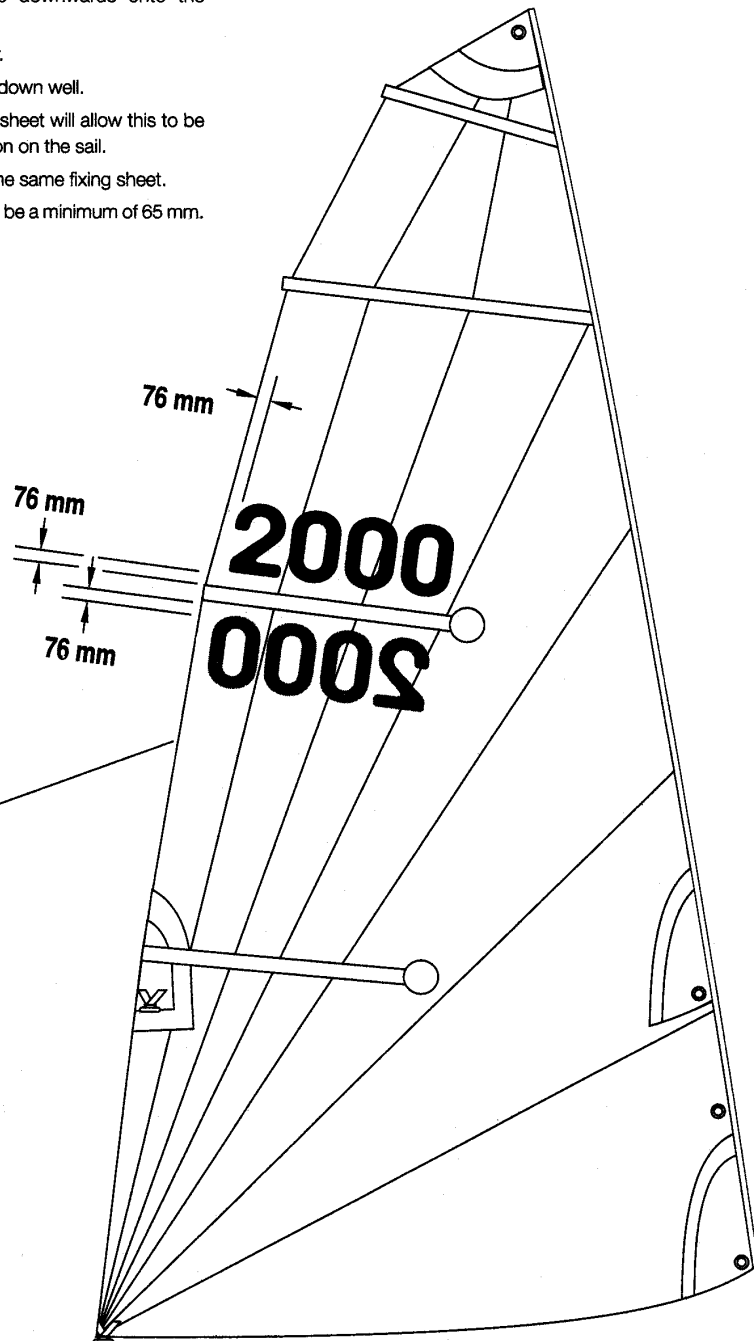
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Appendix 1 - Sail Numbers

SAIL NUMBER FIXING INSTRUCTIONS

Applying the numbers using the fixing sheet.

- 1 Remove the backing sheet from the clear fixing sheet.
- 2 Place the fixing sheet on a clean flat surface with the adhesive side facing upwards.
- 3 Smoothly fix a sail number fabric side downwards onto the fixing sheet.
- 4 Peel the backing paper off the sail number.
- 5 Place the number in position and smooth down well.
- 6 The less aggressive adhesive of the fixing sheet will allow this to be removed, leaving the sail number in position on the sail.
- 7 Repeat for the remaining numbers using the same fixing sheet.
- 8 The spacing between each number should be a minimum of 65 mm.



- 9 After applying the top number, turn over the mainsail and apply the port side sail numbers immediately below those on the starboard side using the batten as a guide.

Starboard (right hand) side of Mainsail

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Appendix 2 - Placements, Additions, Alterations and Repairs

1. The following may be replaced by any of similar function, but of a different type, size and from any supplier:
 - a) Tiller extension and universal joint
 - b) Method of retaining rudder stock to boat
 - c) Shackle pins
 - d) Spinnaker ratchet blocks
 - e) Spinnaker halyard cleat
2. The following may be replaced by any of similar type, size and function, but from any supplier:
 - a) Cam cleats
 - b) Blocks
 - c) Mainsheet swivel base
 - d) Running rigging, except the jib halyard with any of different length and diameter, except the spinnaker sheets, which shall not be less than 6 millimetres in diameter. Aramid and high modulus fibres are permitted except for the mainsheet and spinnaker sheets. All lines must be of a uniform diameter
 - e) Standing rigging and the jib halyard with wire of the same diameter as that supplied by the licensed builder.
 - f) Toe straps
3. The following additions and alterations are permitted and may include parts, which can be obtained from any supplier:
 - a) Non slip material (maximum thickness 5 millimetres) may be added anywhere on the decks.
 - b) The use of flexible adhesive tape, shock cord and bobbles to prevent snagging of sails, sheets and lines is unrestricted but shall not modify the effective sheeting of any sail nor the intended purpose or action of any equipment.
 - c) Additional purchase may be incorporated into the mainsheet system using the existing sheet attachment points; extra blocks may be used to facilitate these additional purchases.
 - d) The method of attaching sheets to the spinnaker is unrestricted provided that the attachment system is less than 10cm in length.
 - e) Any compass, timing device or a combination of both may be fitted provided that it/they can only provide information relating to i) the boat's heading and ii) current or elapsed time.
 - f) Calibration marks of any kind.
 - g) Any design of mechanical wind indication device.
 - h) Wedges may be fitted under cleats.
 - i) A towing rope may be attached to the bow-eye or the mast.
 - j) Any additional equipment required for safety purposes may be fitted or carried provided it is not used in contravention of these Rules.
 - k) Clips, ties, bobbles or bags to secure safety or other equipment.
 - l) Tell-tales may be attached to any part of the mainsail, jib or spinnaker.
 - m) The fitting of a flotation device at the top of the mast.
 - n) Additional turning blocks may be added along the length of the spinnaker uphaul/downhaul, within the cockpit, tied to existing mounting points, provided that these blocks do not provide any additional purchase.
 - o) The use of brush seals or packing pieces within the centreboard case or rudder stock, or attached to the foils, to correct excessive clearance, provided that the ability to move the foils up and down is not impaired.
 - p) Mainsheet bridles shall be constructed from a single length of rope, of uniform diameter and as near in diameter as possible to that originally supplied by the manufacturer. Only the original attachment points may be used but the knot or splice used to attach it is not restricted.
 - q) A 2:1 purchase may be incorporated into the jib sheet system, using minimum 6mm sheets of uniform diameter. One end of the sheet to be tied to the jib fairlead, the sheet to be taken through the jib eye and returned through the jib fairlead and cleat on each side of the boat. The sheet may be continuous, or comprised of two separate lengths of rope (one for each side). (See photos below.)
 - r) One additional inspection hatch may be added to any vertical face of the cockpit.
4. Repairs and preventative maintenance to hull, mast, boom, spinnaker pole, sails, foils, rudder system, tiller fittings equipment, standing rigging and running rigging may be carried out without violation of these Rules provided such repairs are made in such a way that the essential shape

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and characteristics or function of the original are not affected.

5. Preventative maintenance shall include the replacement of fastenings with alternatives providing that the equipment is replaced in the original position and in accordance with these Rules where relevant.
6. Fairing and Refinishing
 - a) Definitions: Refinishing is defined as the improving or restoring of surface finish (e.g. by light sanding, polishing or burnishing) without changing the overall shape or profile. Fairing is defined as the removal (e.g. abrasion) and/or addition (e.g. filling) of material.
 - b) Painting and/or refinishing of a hull or foil is permitted.
 - c) Fairing of a hull or foil is permitted for the purpose of repair only (unless otherwise permitted in these rules), provided that the overall shape or profile of the hull or foil is not changed.
7. PPL Crompton Foils
 - a) For foils produced by PPL Crompton between 1998 and 2010, surface refinishing and moderate fairing to reduce noise and vibration is permitted providing the fundamental shape, thickness and characteristics are not altered. The taper on the trailing edge of the foils may, however, be faired to a maximum of 75 millimetres from the trailing edge.
 - b) Whilst refinishing and/or fairing are accepted methods of reducing noise and vibration, general opinion is that excessive fairing does not result in any tangible performance benefit.
 - c) For foils produced by PPL Crompton between 1998 and 2010, for reasons of safety, structural integrity and reparability, the Class Association and Licensed Builder's recommendation is that the thickness at the trailing edge is no less than 2.0 mm for centreboards and 1.5 mm for rudders.
8. The use of polyester/plastic film (e.g. Mylar) as a centreboard gasket material is not permitted, nor is the removal of the gasket retaining strips.
9. The use of electronic equipment not specifically allowed in these Rules is prohibited unless permitted by the event-specific sailing instructions.
10. If the Licensed Builder is unable to supply other parts or consumables in a reasonable and timely manner then these may be sourced from an alternative supplier, provided the design and supply of such parts or consumables has first been assessed and approved by the Technical Committee of the Class Association to ensure that the strict one design concept of the Class is maintained.



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Appendix 3 – Interpretations

2007 - Training Boats

Laser 2000s which were supplied to Sailing Schools or Associations in a configuration not in compliance with these Rules may compete in Class Association events provided that they conform to the guidelines below and within the 'Spirit' of the Measurement Rules.

- a) All added modifications not in compliance with these Rules are removed (e.g. shock cord take-up on outhaul, additional blocks, cleats etc.).
- b) All cordage is as per these Rules.
- c) They race with the standard Hyde (one design) suit of sails displaying their correct boat number.
- d) Where storage bins have not been fitted at original build, it is not required that they be fitted.
- e) Where fitted, fendering may remain in situ.
- f) The onus is on the individual owner/entrant to ensure that the boat competing in a Class Association event complies with the above.
- g) A boat or equipment may be inspected at any time for compliance with the Rules and relevant sailing instructions.

Owners may wish to apply for a formal inspection of their boat to be carried out by prior arrangement with a representative of the Technical Committee, after which a Certificate of Compliance will be issued and recorded by the Class Association.