



**Laser** »



## **Die Klassenvorschriften (englischer Originaltext)**

These rules come into force on March 1st, 2001.

### **PART ONE**

The English text of the Laser II Rules shall govern.

#### **Object**

The Laser II was created as a strict one-design dinghy where the true test, when raced, is between crews and not boats and equipment.

#### **1. Fundamental Class Rule**

The Laser II shall be raced only with hull, equipment, fittings, spars, standard rigging, sails and running rigging manufactured in accordance with Laser II design specifications.

Any additions or alterations to the hull form, construction, equipment, type of equipment, placing of equipment, fittings, type of fittings, placing of fittings, spars, standard rigging, sails, battens and running rigging as supplied by the builder is prohibited, except when such an alteration or substitution is specifically authorised by Part Two of these Rules.

#### **2. Definition of Builder**

A builder is any manufacturer licensed by the International Sailing Federation (ISAF) to build and supply the Laser II in accordance with Laser II design specifications.

#### **3. Measurement Diagrams**

The Measurement Diagrams are part of these Rules. The spars, sails, battens, standing rigging, running rigging and the placing of fittings and equipment shall conform to the Measurement Diagrams. The Measurement tolerances are intended to allow for necessary

manufacturing tolerances and shall not be used to alter the design.

#### **4. Measurement**

In the case of a measurement dispute on the hull, spars, sails, battens, centreboard, rudder, rigging, type of fittings and equipment and the placing of the same not explicitly covered by these Rules and Measurement Diagrams, the following procedure shall be adopted:

A random sample of 10 other boats shall be taken and measured using identical techniques. The dimensions of the disputed boat shall be equal to or between the maximum and minimum dimensions obtained from these 10 boats. If the boat in question is outside these dimensions the matter, together with any relevant information shall be referred to the Chief Measurer of the Laser II International Class Association at its International Office, who shall give a final ruling. If any of the dimensions of the boat in question are considered to be unusual, all the relevant information shall be referred by the Class Association to the Chief Measurer of the ISAF.

#### **5. Identification on Sails (ISAF Racing Rule Appendix H shall apply except as detailed below)**

**a.** The registration number of each boat as moulded into or fixed to each boat shall be the sail number of the boat. (In alteration to Appendix H1.1(c)).

The sail number shall be glued, sewn or otherwise clearly marked to each side of the mainsail parallel to the seam above an imaginary line projecting at right angles to the leach from a point on the leach 400mm below the seam immediately below the emblem. The numbers on the starboard side of the sail shall be placed a minimum of 60mm above the numbers on the port side of the sail and shall be solid of one colour, clearly visible and easy to read. (In alteration to Appendix H1.3(a)).

The numbers shall be of the following minimum dimensions:

Height: 300mm

Width: 200mm

Thickness: 45mm

Space between adjoining numbers: 60mm

(In alteration to Appendix H1.2(b)).

An exception to this rule may be made in the case of a boat or sail borrowed or chartered for a specific race(s) when written permission is obtained from the Race Committee for that race(s) authorising a competitor to use a sail with numbers or identification different from the registration number of the boat.

**b.** National letters shall be placed above the class insignia and sail number. (In alteration to Appendix H1.3(b&c)).

**c.** Sail numbers and national letters shall not be required on the spinnaker. (In alteration to Appendix H1.3(d)).

#### **6. Mast**

**a.** No mast which has a permanent bend shall be used at any time.

**b.** The mast rake shall not be altered by adjusting the jib halyard and/or standing rigging while racing.

## **7. Spinnaker Pole**

If fitted, shall be stored on the boom using any or all of the following : clips, supports, shockcord and lines. Lines may be used for a 'trolley system' but not for a spinnaker pole launcher.

## **8. Clothing, Equipment and Advertising**

- a. ISAF Racing Rule 43.1 shall apply, except that a hiking or trapeze harness may be worn by the crew only and shall not weigh more than 4 kilograms.
- b. The Laser 2 class shall operate under Category C of the ISAF Advertising Code.

## **9. Sailing Requirements**

- a. Crew : A minimum of 2 persons shall race a Laser II.  
When 2 persons race a Laser II they shall race with the same number of crew throughout the race or series of races.
- b. Rudder : The rudder shall be maintained in the full down position, except whilst racing in water less than 1.5m deep.
- c. Mainsheet: The mainsheet shall not be controlled from any point aft of the forward boom block, except whilst gybing or tacking.

## **10. Hull Coatings**

The use of slowly soluble applications which might alter the boundary layer characteristics of the hull are prohibited.

## **11. Class Association Membership**

No person is permitted to race a Laser II in any fleet, inter-fleet, District or other sanctioned event unless at least one member of the crew is a current member of the Laser II International Class Association (a member of a District Laser II Association duly established in accordance with the Constitution is a member of the Laser II International Class Association).

# **PART TWO - Options and Exceptions to Part One**

## **12. Sheets, Lines, and Wire Rigging**

- a. Any sheets and lines supplied by the builder may be substituted with sheets or lines of any length or material. Apart from the main halyard, sheets and lines in whole or in part of wire are prohibited unless they are supplied by the builder in whole or in part of wire. Aramid fibre or similar material is prohibited for all sheets and lines except spinnaker sheets. Each sheet or line shall be of one continuous length of line of uniform diameter.
- b. Wire rigging may be of any length providing it is stainless steel round strand wire of diameter not more than 3.2mm. The construction of the shrouds and diamonds shall be 1 x 19 and the wire halyards 7 x 19 all with a minimum diameter of 2.3mm.
- c. The outhaul and clew tie-down may be rigged to a snaphook for a quick release.

- d.** The jib sheets and spinnaker sheets (if used) may be continuous or two separate sheets. Jib sheets may be attached to the trapeze handles or hooks.
- e.** The mainsheet may be rigged with an additional purchase at the aft end by placing a double block on the boom and a single block with becket at the traveller. The maximum diameter of the sheaves in the blocks shall not exceed 51mm (2").
- f.** The traveller rigging and number of lines are not restricted in any way, except that only the traveller eyes and the traveller cleat may be used as fittings. The bottom traveller block may be omitted.
- g.** The number and position of the locking ferrules on the jib halyard are unrestricted.
- h.** The forestay mast anchorage may be changed to an eye on the front of the mast at a point not exceeding 100mm (4") above the hounds fitting.
- i.** The mainsail cunningham line shall be dead ended at the boom, tack attachment or gooseneck, then rigged in any fashion between the cunningham eye/tackeye/boom/gooseneck and cleat, provided that no other fittings or fixtures are used. The mainsail cunningham may be used to replace the shackle between the mainsail and the tack attachment.
- j.** The outhaul shall be dead ended at the outhaul eye or sail and then rigged in any fashion between these two points and the cleat, provided that no other fittings or fixtures are used.
- k.** The kicking strap line shall be tied at the cleat block and then rigged in any fashion between the block at the boom key hole and that at the mast foot collar. One stainless steel eye may be used, but no other fittings and fixtures. The cleat block shall be attached to the mast or boom.
- l.** The jib cunningham line shall be dead ended at the tack eye or U bolt and then rigged in any fashion between these two points and the cleat, provided that no other fittings are used.
- m.** The tails of all control lines specified in Rules 12 i - l shall not be led to any fitting after passing through the jaws of the cleat.

### **13. Fittings and Shackles**

- a.** The cockpit centre mainsheet block may be replaced by any type of single block fitting with or without an integral or attached jamming device and mounted in the position shown in the Measurement Diagram. The single block fitting may be supported by a spring. The jamming device may be tied to an existing fitting at the aft of the cockpit using a piece of line.
- b.** One mainsheet clam or cam cleat of any type may be mounted on the deck on each side of the boat as shown in the Measurement Diagram.
- c.** A clam or cam cleat may be placed on the foredeck so that the jib cunningham may be adjusted from the cockpit while racing.
- d.** A spinnaker sheet 'catcher' may be placed on the deck at the bow. The 'catcher' shall be capable of collapsing easily under collision impact and shall have no dangerous or sharp projections.
- e.** The jib sheet fairlead and cleat may be replaced by an adjustable fairlead and cleat on a track maximum length 305mm (12"). The fairlead shall not contain any moving parts. The jib tracks and cleats must be positioned within the maximum and minimum dimensions shown on Measurement Diagram 1, providing the jib tracks do not overhang the cockpit.
- f.** Any shackle may be substituted with another shackle or shackles performing the same function.

- g. The shackle attaching the head of the jib to the halyard may be replaced by a chainplate that only provides length adjustment by means of holes and pins - no leverage devices are allowed.
- h. The D ring for the spinnaker pole on the mast may be moved to any position between 1185mm and 785mm from the bottom of the mast extrusion, provided that the ring is permanently fixed in that position.
- i. The mainsheet blocks on the boom and traveller may be replaced with any other non-ratchet block fulfilling the same purpose. The maximum diameter of the sheaves in the blocks shall not exceed 40mm.
- j. A swivel fitting may be added between the kicking strap/vang block and the mast attachment fitting.
- k. The bow U bolt shall be fitted with the upper washers and nuts above the deck and there must be minimum clearance of 23mm between the deck and the bearing surface of the U bolt. The U bolt shall not be angled forwards.
- l. The pins attaching the shrouds to the shroud plates may be replaced by fast pins.

#### **14. Centreboard**

- a. A rope handle passing through two holes of maximum diameter 12mm (1/2") in the centreboard, the centre of which shall be at least 24mm (2") from any edge of the board, is permitted.
- b. A line or shockcord tied or hooked through a hole of maximum diameter 12mm (1/2") in the centreboard as above and attached to any convenient position on the boat is permitted to prevent loss in the event of a capsize.

#### **15. Rudder**

An uphaul may be added to the rudder.

#### **16. Tiller**

- a. The tiller and tiller extension are not restricted in any way, except that the tiller shall be capable of quick and easy removal from the rudder head and shall have a cleat for the downhaul.
- b. A cleat for a rudder uphaul on the tiller is permitted.

#### **17. Hiking Straps**

- a. The hiking straps may be substituted with any type of non-stretch material and they may be padded.
- b. A shockcord may be attached to the rear hiking straps and then anchored under the traveller cleat.
- c. Crew hiking straps are optional and may be added or removed.

#### **18. Trapeze Equipment (if fitted)**

- a. A single trapeze wire each side of the boat attached to the mast and rigged on the deck as shown in the Measurement Diagram is permitted.
- b. Only one person may use the trapeze at any time.
- c. The length of the trapeze wire, type of handle and hook and method of trapeze

adjustment are unrestricted.

**d.** The trapeze retraction shockcord shall be passed from the trapeze through the deck fairleads as shown in the Measurement Diagram and thereafter across any part of the boat at or forward of the line bisecting the deck fairleads. Turning blocks and/or fairleads may be used to route the shockcord across the boat.

**e.** Continuous trapeze systems are prohibited.

## **19. Spinnaker Pole**

**a.** The spinnaker pole and fittings attached thereto are unrestricted, except that it shall be made of aluminium alloy, shall not exceed 2.5m overall length including fittings and shall not exceed 45mm in diameter excluding fittings.

**b.** A line or tags may be attached to the pole to aid opening.

**c.** An adjustable external spinnaker pole uphaul and/or downhaul may be fitted using lines and/or shockcord and fittings. The method of rigging and control of the uphaul/downhaul system is unrestricted except for the following:-

i) The controls shall be led to the mast and/or deck and shall not be led into the cockpit or aft of a line bisecting the shroud plate.

ii) The uphaul shall be led to a block or turning eye on the front of the mast anywhere below the jib halyard turning block.

iii) The uphaul/downhaul shall not be capable of being used as a 'spinnaker pole launcher'.

## **20. Spinnaker Chute and Spinnaker**

**a.** A spinnaker chute supplied by the builder may be fitted in accordance with the fitting instructions supplied by the builder. When a spinnaker chute has been fitted but is not being used, it may be covered up completely with a flexible waterproof material providing that this is done for the whole of the regatta or series of races.

**b.** A spinnaker retrieval line may be fitted to the spinnaker attached at the point shown on the Measurement Diagram and passing through a hole or loop or shackle at a point shown on the Measurement Diagram.

**c.** The following fittings may be attached to the cockpit floor or bulkhead to control the spinnaker halyard:-

i) 3 turning blocks (either fixed or swivel)

ii) 1 cleat with or without integral fairlead. The cleat may have a wedge no thicker than 30mm under it.

iii) 2 fairleads which shall not contain any moving parts.

**d.** A cleat may be attached to the mast to control the spinnaker halyard.

## **21. Inspection Ports**

Inspection ports not exceeding 152mm (6") internal diameter may be installed on the deck or in the cockpit to provide access to the hull cavity, provided that any inspection port is fitted with water-tight threaded covers (any bayonet mounted ports are deemed to be not threaded). Storage receptacles are permitted underneath hatch covers.

## **22. Clips and Storage Bags**

Storage is permitted in the cockpit using clips, ties or bags to stow or secure safety or other equipment.

## **23. Compass and Timing Device**

a. A maximum of two compasses are permitted on or recessed into any part of the hull, or one compass may be mounted on the mast. The cunningham cleat may be repositioned on the mast to accommodate a mounting bracket.

If the compass is mounted in or on the inspection port cover to permit removal, there shall be a permanently water-tight compartment behind the port mounting ring. Any compass which is recessed into the deck, and any port which is installed, shall be permanently installed with fasteners and sealant.

The compass or compasses may be mechanical or electronic, provided that they are not programmable in any way and cannot have data fed into them.

b. Mechanical or electronic timing devices are permitted to be worn or fitted to the boat and may be incorporated into the compass unit.

## **24. Wind Indicators**

a. Wind indicators may be attached as desired.

b. Ribbons, wool or similar wind indicators may be attached to the sails.

## **25. Tape and Plastic Tubing**

a. The use of plastic flexible adhesive tape or similar is permitted to secure shackle pins and clips and bind sheets, lines and rigging, except that tape shall not be used to construct new fittings or modify the function of the existing fittings.

b. Plastic tubing may be used to cover the shrouds and the cockpit centre mainsheet block attachment.

## **26. Miscellaneous**

a. A piece of shockcord may be tied between the diamond wires at the cross tree and the shroud to prevent the spinnaker halyard snagging behind the diamond wires.

b. A piece of shockcord may be tied between the forestay and the bow U-bolt to take up any slack in the forestay.

c. Non-slip paint, tape or material may be added to the gunwales.

d. The centreboard gasket may be replaced by any other gasket provided that the replacement gasket is identical in function and is attached inside the centreboard trunk.

## **27. Anchor**

An anchor need not be carried unless prescribed by the Notice of Race and the Sailing Instructions of a race or series of races.

## **28. Safety Equipment**

Any additional equipment required by an International, National or other governing authority for safety purposes may be fitted or carried provided it is not used in contravention of the FUNDAMENTAL CLASS RULE.

## **29. Repairs and Maintenance**

- a. Repairs and preventative maintenance to the sails, hull, deck, centreboard, rudder, mast or boom may be carried out without violation of these Rules provided such repairs are made in such a way that the essential shape or characteristics are not materially affected. In the event of the failure of any fitting, or other replacement of fittings as authorised by these rules, the same or a replacement thereof of the same size, type and function shall be replaced in a position conforming to the Measurement Diagrams.
- b. Repairs to the centreboard and rudder may not be used to allow a significant change to the shape of the foil. In any event, the trailing edge of the foils shall be flat with a width of not less than 2mm except for the bottom 100mm of the foil.

## **30. Mast, Standing Rigging and Running Rigging**

Certain changes in the way the mast is rigged have been introduced over the years. These changes do not affect the performance or handling characteristics of the Laser II. This Rule exists to allow owners of a Laser II to change to any specification supplied by a licensed builder.

- a. The jib halyard may be led internally through a sheave the centre of which shall be below the hounds and exiting through a sheave at the bottom of the mast and then onto a rack.
- b. The main halyard may be anchored on a rack or cleat.
- c. The diamond strut may be replaced by an externally fitted diamond strut supplied by the builder.
- d. The lower end of the diamond wires may be attached to bottle screws on external mast anchorages.
- e. The stainless steel mast step may be replaced with an extruded mast step supplied by the builder.

## **31. Amendments**

Amendments to these Rules shall be approved by each of:

- a. the World Council
- b. the Advisory Council
- c. at least two thirds of the membership replying to the International Office of the Class in response to a postal ballot published by the International Office of the Class. Only those postal votes returned to the International Office within 4 months from the date of publication of the rule change shall be valid, and
- d. the ISAF

Approved by ISAF, November 2000.