

RS800

INTERNATIONAL CLASS RULES V.2

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The RS800 Class Rules are drafted in the ISAF *Closed Class Rules* format for
“One-Design” Classes:

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The RS800 was designed in 1999 by Phil Morrison and RS Sailing.

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INTRODUCTION

This introduction only provides an informal background and the RS800 International Class Rules proper begin on the next page.

The RS800 is a one-design racing boat, suitable for both youth and adult sailors for both racing and training. It has been designed against the principle that the racing results should depend solely on the attributes and skills of the crew. The fundamental objective of these class rules is to ensure that this concept is maintained.

RS800 hulls, hull appendages, rigs and sails are manufacturing controlled.

RS800 hulls, hull appendages, rigs and sails shall only be manufactured by RS Sailing – in the class rules referred to as licensed manufacturers. Equipment is required to comply with the RS800 International Building Specification and is subject to an ISAF approved manufacturing control system.

RS800 hulls, hull appendages, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Owners and crews should be aware that compliance with rules in Section C is NOT checked as part of any certification or formal measurement process.

Rules regulating the use of equipment during a race are contained in Section C of these class rules, in ERS Part I and in the Racing Rules of Sailing.

PLEASE REMEMBER:

**THESE RULES ARE *CLOSED CLASS RULES:*
ANY CHANGE NOT SPECIFICALLY PERMITTED BY THESE CLASS RULES IS
*PROHIBITED.***

**COMPLIANCE WITH THESE CLASS RULES IS DEMONSTRATED THROUGH
*MANUFACTURING CONTROL:***

**THUS CONTROL OF COMPONENT AND EQUIPMENT SPECIFICATION IS
UNDERTAKEN BY THE LICENSED MANUFACTURER.**

PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

- A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
- A.1.2 The word “shall” is mandatory and the word “may” is permissive.

A.2 ABBREVIATIONS

- A.2.1 ISAF International Sailing Federation
- MNA ISAF Member National Authority
- ICA RS800 International Class Association
- NCA RS800 National Class Association
- ERS Equipment Rules of Sailing
- RRS Racing Rules of Sailing
- LIC Licensors – Copyright holder and RS Sailing

A.3 AUTHORITIES

- A.3.1 The international authority of the class is the ICA and LIC which shall co-operate with each other in all matters concerning these **class rules**.
- A.3.2 The ICA, NCA, LIC, or an MNA are under no legal responsibility in respect of these class rules.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 The class is administered by the ICA, who shall co-operate with the LIC. The ICA may delegate some or all of its administrative function to an NCA
- A.4.2 In countries where there is no NCA, or the NCA does not wish to administrate the class, its administrative functions as stated in these **class rules** shall be carried out by the ICA in co-operation with the MNA, or by the MNA in co-operation with the ICA

A.5 CLASS RULES VARIATIONS

- A.5.1 At Class Events – see RRS 86.1(c) – ISAF Regulation 10.11 applies. At all other events RRS 87 applies.

A.6 CLASS RULES AMENDMENTS

- A.6.1 Amendments to these **class rules** shall only be made with the approval of the LIC, and a majority vote of the ICA members who return written replies within one month of the circulation of the proposed rule change.

A.7 CLASS RULES INTERPRETATION

- A.7.1 Interpretation of **class rules** shall be made by the ICA and LIC in accordance with the ICA Regulations.

A.7.2 Interpretations of class rules required during an event shall be made in accordance with RRS and the organising authority shall, as soon as practical after the event, inform the ICA and LIC of the event ruling.

A.8 SAIL NUMBERS

A.8.1 Sail numbers shall be issued by the LIC.

A.8.2 Sail numbers shall be issued in consecutive order starting at “800”.

Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES COMPLIANCE

B.1.1 The boat shall be in compliance with the **class rules**.

B.1.2 In the event of a dispute alleging non-compliance with these class rules, the following procedure shall be adopted:

a) A sample of the dimensions for the disputed item shall be obtained by taking the identical measurement from 5 boats or items of equipment which are not the subject of the dispute.

b) The dimension of the disputed boat or item of its equipment, when using the same technique as above shall be compared to the sample.

c) If any of the dimensions obtained from the disputed boat or item of equipment lie outside the corresponding range of dimensions found in the sample by more than 10% of that range, the matter, together with details of the measurement methods used and any other relevant information shall be referred to the ICA.

d) The ICA shall obtain a majority decision from its officers. After consultation and only with agreement from the LIC, that majority decision shall be final and binding on all parties.

B.3 CLASS ASSOCIATION MARKINGS

B.3.1 A valid Class Association Sticker, if required by the NCA or the ICA, shall be affixed to the hull in a conspicuous position.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. In case of conflict Section C shall prevail.

The rules in Part II are **closed class rules**. Any **equipment inspection** shall be carried out in accordance with the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

- C.1.1 The RS800 shall be raced with two persons on board (the crew)
- C.1.2 the sprit shall be retracted so that its forward end is within 400mm of the forward most point of the hull at all times other than when the spinnaker is set or in the act of being launched or recovered.
- C.1.3 The RS800 may only be raced if the wings are on the designated settings and the required corrector weights fitted relevant to the weight of the helm and crew in accordance with Appendix 1. The corrector weights, as supplied by the Licensed Builder, must be fixed to the hull using fittings as supplied by the Licensed Builder, on the floor of the hull. The position of the fittings cannot be changed.

C.2 CREW ELIGIBILITY

- C.2.1 To be eligible to compete in events run under the auspices of the ICA or NCA, at least one member of the crew shall be a member of the ICA.

C.3 PERSONAL EQUIPMENT

- C.3.1 The boat shall be equipped with a **personal floatation device** for each crew member to the minimum standard ISO 12402-5 (CE 50 Newtons), or USCG Type III, or AUS PFD 1.

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance the ISAF Advertising Code. (See ISAF Regulation 20)

C.5 PORTABLE EQUIPMENT

- C.5.1 The following optional equipment may be used onboard and attached to the hull or rig providing that the fastenings do not puncture the hull skin.

1. Compass or timing device or a combination of both provided that it / they can only provide information relating to (A) the boats heading and (b) current or elapsed time.
2. Maps, charts or means of recording information.
3. Items to stow food or drinks.
4. Any additional equipment, bags, ties, holders etc as may be required to stow safety or other permitted equipment.

C.6 BOAT ALTERATIONS

- C.6.1 Replacements for any boat equipment, including spars, sails foils, rudder stock, tiller or fittings shall only be those produced by a manufacturer licensed by the LIC, except where authorised by this section.
- C.6.2 Repairs and maintenance may be carried out provided that repairs are made in such a way that the essential shape, characteristic and function of the original are not affected. Maintenance shall include the replacement of fastenings with alternatives, provided that the equipment is replaced in the original position.

C.7 HULL

C.7.1 HULL MAINTENANCE AND REPAIR

Polishing and burnishing of the hull is permitted

C.7.2 REPLACEMENT OF HULL FITTINGS

The following parts or equipment may be replaced. The replacement parts may be obtained from any supplier, providing that they are of a similar type and perform the same function.

Blocks

Bungs and self-bailers (if fitted)

Inspection hatches

Cam cleats

Rudder hangings and retaining devices

Shroud adjusters

Control lines

Shackles, swivels, and pins.

C.7.3 ADDITIONS AND ALTERATIONS TO THE HULL

The following additions and alterations are permitted, provided that they do not alter or modify the intended action, function or purpose of an original item of equipment. Parts may be obtained from any supplier.

- 1) Non slip material (max thickness 2.5mm) of any kind may be added to the deck and cockpit.

- 2) Flexible adhesive tape or shockcord.
- 3) Calibration marks of any kind
- 4) Clips, ties or bags as required to secure safety equipment
- 5) Additional hatches or drainage holes providing the watertight integrity of the hull, or its compartments, is not compromised.
- 6) Packers or raisers to increase the height or angle of cleats.
- 7) Any number of mechanical wind indication devices may be fitted
- 8) Any additional equipment required for safety purposes may be fitted.
- 9) The total velocity ratio in the control lines must not exceed: Kicking strap – 16:1, cunningham – 8:1, jib luff tension – 2:1.
- 10) Control line takeaway systems may be altered or improved in any way so long as any extra fastenings are made only to the inside of the fore and aft wing bar tubes; all lines / shock cord are maintained externally; alongside and close to any wing bar tube.
- 11) Protective chafe pads of any material are allowed under the wing u-bolts so long as no fixings are added.
- 12) The use of a jamb cleat, swivel base and final turning block on the cockpit floor for the mainsheet is optional. These fittings may be removed. The jib sheet may alternatively be led through these fittings. The final turning block may be raised by means of a ‘turret’ with a sole purpose or raising the swivel base/final turning block/jamb cleat directly above the standard position on the cockpit floor. The only permitted turret is the ‘standard’ RS800 Class turret, supplied by the licensed builder.
- 13) The mainsheet system may be modified as follows:
 - a. The velocity ratio of the centre mainsheet system may be increased.
 - b. Multiple mainsheet strops are permitted for the centre mainsheet system provided that all such strops are attached using the ‘standard’ attachment points and that the attachment points on the boom are no more than 1530mm from the aft face of the mast.
 - c. [Deleted]
 - d. The use of a rear mainsheet system and twin tiller extensions is permitted as an alternative to the centre mainsheet system. Specifically, a purchase of 3:1 velocity ratio (as measured at the boom end) may be used, consisting of one single block mounted on a bridle at the aft of the boat and two single blocks lashed around the outboard end of the boom. The lashings shall pass through a single eye fitted on top of the boom, restraining the top of the lashings to be not more than 310mm from the aft end of the boom. The mainsheet dead-end shall be attached only to the block on the bridle. The mainsheet must then run underneath the boom to a block lashed around the boom, and may then optionally pass through a final turning block mounted either on the cockpit floor or on a turret, in accordance with C.7.3.12. The use of a plastic or cloth sleeve along the boom to guide the mainsheet and the use of a gybing strop are permitted, as is the addition of shockcord between the aft end of the wings to prevent the leeward tiller extension from getting trapped under the wing; new holes may

be drilled in the aft end of the wings for this purpose. The shockcord may pass through or attach to the block on the bridle. The bridle ends shall be attached only to eyes fixed under the gunwale to the aft U-bolts for the wings; no additional holes shall be drilled in the hull.

- 14) Floor kick blocks - the use of the floor kick blocks is optional unless they are moulded in as an integral part of the deck (any boat manufactured before 1st January 2007), in which case removal is prohibited.
- 15) A maximum of four foot straps may be fitted to the wings. When standing on the strap, a sailor's foot shall not extend more than 10mm from the wing bar.
- 16) A maximum of two lacing eyes and blocks, solely for the purpose of routing the helmsman's trapeze elastic, may be fitted at any point on the cockpit floor; or the elastic may be led via a shackle, loop or block attached to any of the lacing eyes already fitted to the inside face of the cockpit sides.
- 17) A maximum of two fairleads may be fitted to the cockpit floor; or to other existing fittings; not more than 500mm from the centre jammer, solely for the purpose of routing the spinnaker halyard / downhaul line.
- 18) Additional blocks, fairleads, elastic and rope may be fitted solely for the purpose of providing quick release of the spinnaker halyard from its cleat. Such fittings may only be attached to existing fittings or lines on the hull or spars.
- 19) Trapeze shock cord systems may be altered or improved in any way so long as any extra fastenings are made only to the inside of the fore and aft wing tubes and all lines / shock cord are maintained externally and close to any wing bar tube.

C.8 DAGGERBOARD AND RUDDER

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Polishing and burnishing of the rudder blade and daggerboard is permitted.
- (b) The head of the rudder maybe packed or sanded to maintain a good fit. The daggerboard and daggerboard case maybe modified to maintain a good fit, so long as the daggerboard may still be easily retracted.
- (c) Re-fairing and refining of the trailing edge of the rudder blade and daggerboard is allowed within 100mm of the trailing edge, so long as the structural integrity of the foil is maintained, only materials used in the original construction, if required, are used; and a minimum trailing edge thickness of 1mm is maintained.

C.8.2 TILLER AND TILLER EXTENSIONS

The tiller length is unrestricted, so long as aluminium tubing of the same strength and specification is used.

The tiller extension or extensions is/are optional in length and construction.

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

The following maybe replaced. The replacement parts or equipment maybe obtained from any supplier.

- 1) Running rigging, ropes, elastics and lashings.
- 2) Main halyard and securing device – maximum velocity ratio 2:1.
- 3) Wire rigging with the following restrictions: Shrouds – 3mm 1x19 or 1x7. Forestay – 3mm 1x19 or 1x7: Upper shrouds – 2.5mm 1x19: Lower shrouds – 3mm 1x19.
- 4) Spinnaker sheet ratchet blocks.

C.9.2 ADDITIONS AND ALTERATIONS TO RIG

- 1) Any number and design of mechanical wind indication devices may be fitted.
- 2) Drainage holes may be drilled in the mast heel plug and sprit.
- 3) An additional purchase may be added to the jib sheet system, only using existing attachment points. Additional blocks maybe added if required.
- 4) The spinnaker halyard, downhaul and pole launch lines are un-restricted in routing and operation, additional blocks and fairleads maybe added in accordance with rules C.7.3.17 and C.7.3.18.
- 5) The upper shrouds may be tensioned by: a bottlescrew, or a rope purchase that utilises any fittings, so long as the purchase has a maximum velocity ratio of 4:1 and is solely attached to the original fitting on the mast or mast step fitting and the upper shrouds

C.10 SAILS

C.10.1 MAINTENANCE AND REPAIR

- (a) Routine maintenance and repairs are permitted.
- (b) Sail battens and their tensioning devices may be replaced with parts obtained from any supplier. Battens maybe tapered or adjusted as required

C.10.2 MAINSAIL IDENTIFICATION

- (a) The national letters and sail numbers shall comply with the RRS except where prescribed otherwise in these **class rules**. The sail number shall be positioned between the two lower battens and on each side of the mainsail.
- (b) The class insignia shall be the RS800 class logo as prescribed by the LIC, and shall be displayed on the top half of the mainsail, in compliance with RRS.
- (c) There is no requirement to carry sail numbers on the spinnaker.

Section D – Hull

D.1 HULL SPECIFICATION

D.1.1 The hull and fittings shall comply with the building specification in force at the time, but maybe altered, if relevant or required, to match the current build specification. Notwithstanding this ruling, hulls built prior to January 2007 shall not be modified, with respect the deck shape and configuration, to match, emulate, or copy those built after January 2007. The reverse shall also apply.

D.2 HULL MANUFACTURER

- D.2.1 The hull shall be built by a manufacturer licensed by the LIC to produce hulls.
- D.2.3 All production moulds must be approved by the LIC prior to commissioning.

D.3 HULL IDENTIFICATION

- (a) Each hull shall carry a moulded in hull identification number (HIN)
- (b) Each hull shall display on the transom its prescribed sail number. This may be engraved, moulded or a printed on a transfer.

D.4 HULL ALTERATIONS

The hull shall not be altered in any way except as prescribed by section C of these rules, or by section D.1 of these rules.

D.5 HULL FITTINGS

Hull fittings shall comply with the build specification in force at the time, and shall not be altered in any way except as permitted by section C and D.1 of these rules.

Section E – Centreboard and rudder

E.1 FOIL SPECIFICATION

The centreboard, and complete rudder assembly shall comply with the building specification in force at the time, but maybe altered, if relevant or required, to match the current build specification.

E.2 FOIL MANUFACTURER

The centreboard and complete rudder assembly shall only be manufactured by a manufacturer licensed by the LIC to produce these.

E.3 FOIL ALTERATIONS

The centreboard and complete rudder assembly shall not be altered in any way except as permitted by section C and E.1 of these rules

Section F – Rig

F.1 SPAR SPECIFICATION

The Spars, constituting mast, boom and sprit assembly, and their fittings shall comply with the building specification in force at the time, but maybe altered, if relevant or required, to match the current build specification.

F.2 SPAR MANUFACTURER

The spars, constituting mast, boom and sprit assembly, shall only be manufactured by a manufacturer licensed by the LIC to produce these.

F.3 SPAR ALTERATIONS

The spars, as defined above, shall not be altered in any way except as permitted by section C and F.1 of these rules.

Section G – Sails

G.1 SAIL SPECIFICATIONS

The Sails, constituting main, jib and spinnaker, and any components shall comply with the building specification in force at the time, but maybe altered, if relevant or required, to match the current build specification.

G.2 SAIL MANUFACTURER

The sails, constituting main, jib and spinnaker, shall only be manufactured by a manufacturer licensed by the LIC to produce these.

G.3 SAIL ALTERATIONS

The sails, as defined above, shall not be altered in any way except as permitted by section C and G.1 of these rules.

Appendix 1: PERFORMANCE EQUALISATION

1. CORRECTION FOR WEIGHT AND RIGHTING MOMENT

A combination of the helm and crew's weight and righting moment will be used to calculate the setting of the racks and the number of corrector weights that will be carried in the boat.

2. MEASUREMENT METHOD

2.1 Measurement Beam and Scales

The weight and righting moment of the helm and crew will be measured using a Class Association approved measurement beam. The beam will be 2m long and will be used in conjunction with Class Association approved scales.

2.2 Clothing

Measurement is made in light shore clothing: a minimum of shorts and a vest or T-shirt, a maximum of 2 layers including underwear. Heavy items must be removed (shoes, coats, contents of pockets etc). The same clothing is worn for righting moment and weight measurements.

2.3 Righting moment

The "head end" of the beam is placed on the scales taking care that the bearing surface of the beam sits on the middle of the scales (which are reset to zero once the beam has been placed upon them) to ensure an accurate reading.

Once this is done, the person must lie flat, facing upwards, upon the beam with arms folded such that hands touch elbows. The heels of the feet must be touching the end of the plank and the legs must be as straight as possible.

The reading from the scales is read by a third party and is then multiplied by 2 to give the righting moment.

The helm and crew's righting moments are added together to get the Combined Righting Moment (CRM).

2.4 Weight

The helm and crew will be individually weighed using the same Class Association approved scales used for righting moment, that have been reset to zero.

The helm and crew's weights are added together to get the Combined Crew Weight (CCW).

3. DETERMINING PERFORMANCE COMPENSATION SETTINGS

3.1 Calculating the Rack Setting

For the rack setting calculation, CRM and CCW are rounded either up or down to the nearest whole number. This means that if the first decimal place is above .0 and below .5 it will be rounded down and if it is .5 and above it will be rounded up.

The maximum rack setting is then read off from Table 1. For values of CCW or CRM off one end of the scale, use the value at that end of the scale.

Rack setting 1 is the innermost hole and each hole is counted outwards from there.

3.2 Corrector Weights

Table 2 determines the number of corrector weights to be carried in the boat, based on CCW without rounding up or down.

One intermediary rack bar per side, as supplied by the Licenced Builder, may be used. The intermediary bar will be positioned in board of the outer rack beam and outboard of the side deck. The intermediary bar will be located securely and its position cannot be altered whilst racing. When used, the two intermediary bars (one on each side) will be deemed to be equivalent to one corrector weight for equalisation purposes.

Table 2: RS800 corrector weights

Combined Crew Weight	Number of corrector weights
151 kg or more	None
148 to less than 151 kg	1 corrector
145 to less than 148 kg	2 correctors
142 to less than 145 kg	3 correctors
139 to less than 142 kg	4 correctors
Less than 139 kg	5 correctors

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