

# RS800

## INTERNATIONAL CLASS RULES V.1

Issued January 2013



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

*Date of this version; 28 January 2013*

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

# INDEX

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## PART I – ADMINISTRATION

### Section A – General

A.1	Language .....	4
A.2	Abbreviations .....	4
A.3	Authorities.....	4
A.4	Administration of the Class .....	4
A.5	Class rule changes .....	4
A.6	Class Rules Amendments .....	4
A.7	Class Rules Interpretation .....	4
A.8	Sail Numbers .....	5

### Section B – Boat Eligibility

B.1	Class Rules compliance .....	5
B.2	Class Association markings .....	5

## PART II – REQUIREMENTS AND LIMITATIONS

### Section C – Conditions for Racing

C.1	General .....	6
C.2	Crew .....	6
C.3	Personal Equipment .....	6
C.4	Advertising .....	6
C.5	Portable Equipment .....	6
C.6	Boat alterations .....	7

C.7	Hull .....	7
C.8	Daggerboard and Rudder .....	9
C.9	Rig .....	10
C.10	Sails .....	10

### Section D– Hull

D.1	Hull specification .....	11
D.2	Hull manufacturer .....	11
D.3	Hull identification .....	11
D.4	Hull alterations .....	11
D.5	Hull fittings .....	11

### Section E – Centreboard and Rudder

E.1	Foil specification .....	11
E.2	Foil manufacturer .....	12
E.3	Foil alterations .....	12

### Section F – Rig

F.1	Spar specification .....	12
F.2	Spar manufacturer .....	12
F.3	Spar alterations .....	12

### Section G – Sails

G.1	Sail specification .....	12
G.2	Sail manufacturer .....	12
G.3	Sail alterations .....	12

### Appendix 1

Performance equalisation tables.....	13
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# INTRODUCTION

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*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

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## 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

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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 ration 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 and the type of swivel base & final turning block for the mainsheet is optional. 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 may be increased.
  - b. Multiple mainsheet strops are permitted 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. The mainsheet must pass through and be taken from the final turning block mounted either on the cockpit floor or on a turret, in accordance with C.7.3.12. The helmsman must take the mainsheet at all times, the only exception being the crew providing momentary assistance in exceptional circumstances.
  - d. The use of a rear mainsheet system and twin tiller extensions is permitted as an alternative to the centre mainsheet system. Specifically, an unlimited velocity ratio may be used mounted on a bridle at the aft of the boat / outboard end of the boom, then running parallel to the boom to a rolling block located on the boom, in line with the final turning block located on the floor of the boat, and must then pass through and be taken from the final turning block mounted either on the cockpit floor or on a turret, in accordance with C.7.3.12. The helmsman must take the mainsheet at all times, the only exception being the crew providing momentary assistance in exceptional circumstances. The use of a plastic sleeve along the boom to guide the mainsheet and the use of a gybing strop are permitted. The addition of fittings on the boom is permitted as is the addition of shockcord between the in board end of the aft of the wings to prevent the leeward

tiller from getting trapped under the wing, new holes may be drilled in the aft of the wings for this purpose.

- 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 may be packed or sanded to maintain a good fit. The daggerboard and daggerboard case may be 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 may be replaced. The replacement parts or equipment may be 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 may be added if required.
- 4) The spinnaker halyard, downhaul and pole launch lines are un-restricted in routing and operation, additional blocks and fairleads may be 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 may be 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.

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## Appendix 1:

### PERFORMANCE EQUALISATION:

The RS800 provides 100% performance (leverage and weight) equalisation between combined crew weights of 134.5kg and 152.5 kg. There is no restriction to the range of Combined Crew weights.

*The correct rack (wing) settings will be calculated using tables in Appendix 1, section B – Righting Moment Correction Chart.*

### Section A: CRM and CCW:

1. Combined Righting Moment (CRM) and Combined Crew Weight (CCW) shall be obtained as follows:: The righting moment of each crew member will be measured on a Class Association approved measurement beam. The beam shall be 2 metres long and used in conjunction with Class Association approved scales. Each crew member must (in turn) lie flat, facing upwards, upon the beam with arms folded such than hands touch elbows. The reading from the scales for the two crew members will be added and then multiplied by 2 to give the CRM. This figure and the Combined Crew Weight (CCW) will then be looked up on the Righting Moment Correction Chart to determine the rack hole settings that shall be used. Rack holes are numbered from 1 to 10 starting from the innermost position. The CCW and CRM are to be rounded up or down to the nearest even number for the rack hole position.
2. *Use this table to determine the number of corrector weights to fit for a given CCW:*  
CCW is calculated by adding together the weight of the helm and crew. The same scales as used to discover CRM should be used.

Combined Crew Weights	Corrector Weight in Kg	No of corrector weights
151 Kg or more	None	None.
148 – 150.9 Kg	3 Kg	1 corrector
145 – 147.9 Kg	6 Kg	2 correctors
142 – 144.9 Kg	9 Kg	3 correctors
139 – 141.9 Kg	12 Kg	4 correctors
136 – 138.9 Kg	15 Kg	5 correctors

3. One intermediary rack bar per side, as supplied by the manufacturer, 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 as outlined in 3.2.2.

### Section B: Righting moment correction chart:

See below:



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