



Factsheet – RS100

It is around ten years now since spinnakers first appeared on single-handed dinghies and the appeal has quickly grown. The first mainstream hiking class was the RS Vaneo which set out to offer versatility of use at a reasonable price and this continues to be a steadily growing RS class. Top end boats like the MPS and RS700 are great if you have the time to practice and the type of water that suits faster skiffs, but there has been significant discussion on forums and around sailing club bars for the last couple of years about the gap in the market for a performance orientated hiking / asymmetric boat.

RS
100

For Launch early 2010

RS100 – Design info

The aim is to create a responsive design that will appeal to all good single-handed sailors – giving an achievable challenge and a boat that is suited to most club waters as well as championship courses. The design has been evolved over nearly a year to prototype stage by RS's in house development team and Paul Handley, designer of the immensely successful smaller boats in the RS line-up.

For the first time, we also worked with an Italian product designer on the styling of the RS100. Daniel Vitali used to sail an RS600, so he understands boats as well as design.



Hull

The RS100 will hull have epoxy GRP composite sandwich construction for light weight, stiffness and a long competitive life. The shape is easily driven with a reasonably fine bow and sufficient waterline width further aft to give the stability desired. Flare topsides give reserve buoyancy as the boat heels, and the moulded in wings add to this – making the boat more forgiving than you would think. Spray rail on the chines give excellent water release and also a drier ride.

After much consultation a pivoting centreboard was chosen for its user friendliness. Launching and recovery



are easy and the risk of significant damage through grounding is largely eliminated.

Having paid considerable attention to the wing and cockpit design, we're pleased to report that so far most people think the RS100 is just about the most comfortable hiking boat they've ever sailed.

Rig

The mast carbon fibre mast is in two parts for easy transport on a car roof or in a 20' shipping container. Shrouds (but no forestay) mean the rig can work automatically upwind. The shrouds stop the rig bending forwards with the spinnaker up downwind – this is important to keep the bow up without the need for a super-stiff mast which would be costly, heavier and less responsive uphill.

A strut kicker works on the same principle as the excellent RS300 system, with a roller on the top end which runs down mast. This is easy to adjust and very

effective. Controls are led to either side of the wings.

One of the most unusual features (on a single-hander) that we've been working on is the main sheeting off the boom – with a jammer also on the boom. This is extremely comfortable upwind – with a spin-off benefit being that it actually provides some hiking support. The real benefit, especially in lighter winds, is that it allows you to cross the boat well forward when tacking. We will probably also offer the option of a conventional

centre jammer for those who prefer it.

Having looked hard at the ways to broaden the competitive weight range we have chosen two mainsail size options. The early response to the RS100 from sailors around the world has been incredible and we've quickly realised that both big and small sailors really want this boat to work for them. A width adjustable performance equalisation system would add considerable cost and mean that light sailors have to carry a lot of lead in the boat. We don't think this is what the RS100 should be about. Two mainsail sizes (as per standard Laser and Racial)

Current development specification

Length: 4300mm

Beam: 1830mm

Mainsail areas: TBA

Asymmetric spinnaker area: TBA

Hull construction: Epoxy GRP foam sandwich

Foils: Centreboard and rudder - Epoxy

Mast: Carbon composite - 2 part

greater investment, but results in sailing development taking place in boats that feel like the real thing and construction testing happening in parallel.

Prototype testing started in June and has taken pace pretty intensively since then. In fact, the hull shape was found to be almost spot on from the outset, so only very small modifications to the underwater shape right at the stern took place before signing off the design. The deck development focussed on getting the detail right for fittings positioning and styling.

Rig development is time consuming and will continue through the autumn of 2009. Already a number of masts of varying stiffness have been made with corresponding sail shapes. We started with square topped mainsails and now also have narrower heads to test. The advantages of the square top may be outweighed by the lower centre of effort and

lower drag of a narrower head on a hiking single handed. Development time will tell.

During development we have invited many sailors to test the prototypes and give their detailed feedback on all aspects of the boat. This has been invaluable in gaining a wide spread of opinion on key design elements. This process will also continue until the rig has been signed off.

Prototypes and development

Having worked up the design on computer over many months, before producing the first prototype we made a quarter scale hull model to help us to get the appearance of the boat right. This proved invaluable in refining the styling and general reaction to the look of the boat has proved the exercise well worthwhile.

The prototype boats were then made in a CNC milled "temporary" mould, enabling hulls to be built using production construction systems. This required a



will allow us to keep the boat simple and suit a wide weight range. The indications are that this class could soon grow to big numbers, so splitting the fleet will not be a problem.

The spinnaker has a big chute beneath the foredeck for quick hoists and drops. The lack of a forestay and the mast reasonably well aft, mean that the spinnaker has a huge amount of space to blow through very easily in a gybe.

Production

Production is scheduled to start early in 2010 at Composite Marine International (CMI) in Thailand. CMI is a specialist boat building joint venture between Cobra (a huge composite manufacturer with subsidiaries in the automotive, aerospace, windsurfing and cycling industries) and a group of highly experienced British boat builders. RS has its own quality control manager based in the factory.

International Launch

RS now has active dealers in over twenty countries around the world and the RS100 will be launched internationally in partnership with this network. The class will build globally from the outset and the first world championship will be scheduled in only the second year of its life!

We have been inundated with interest in the RS100 since it was announced in June - to the point that an increasing number of sailors in a number of countries have been keen to ensure they could get their hands on one of the first boats. It quickly reached the point of being hard to keep track of the situation. Having said we would give a special deal on the first one hundred boats we decided the fairest thing was to "open" that offer in the summer of 2009 so that we know who really wants an RS100 at any stage and can build an accurate allocation of the boats.



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... A PASSION FOR SAILING

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