

# RS 800 Tuning guide

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Update 1.0 adding number conversion table 25-3-02

Update 2.0 adds mainsheet improvements 5-4-02

Update 3.0 further refinements to jib sheeting and mainsheet photo 22-01-03

Update 4.0 new rules and small change to jib track setting. 26-5-03

The following document outlines the basic settings that I have evolved and stolen from competitors over the past season. These settings and techniques will continue to vary or change and I will endeavor to keep you up to date through this page.

## Basic Start up Settings.

As of this season (2003) the class rules have changed regarding spreader setting and equalization. The spreaders no longer have much scope for change (the upper spreader are also fixed) the 20mm total tolerance on deflection is less than one hole at the root.

Along side this we have 100% equalization so 90 % of the fleet are sailing with the righting moment and weight of around 150kgs. I believe we will need to power the rigs up more as a result of this change—but we can only do this with wire tensions and rake due to the spreader restrictions....As yet there seems to be no consensus on upper shroud tension but the old settings on the rest of the rig still seem to apply.

Put your shrouds in hole 2 or 3 down from the top (front or back set its only approx. at this stage. Do not connect the lower shrouds and ensure the uppers are slack. Using a small spring style loose gauge pull on the boat breaker until the shrouds are at 30 reading of the gauge without converting. (for proctor masts hole 5 or 5 on the shroud may be closer).

Pin the forestay - the forestay should read 22. With the shrouds still at the original 30 (beware you don't lose some tension when pinning the forestay).

Check the rake by pulling a tape measure up on the jib halyard until the tape hits the jib sheave. Measure to the bow top and you need to read 5757mm.

If you do not have the correct rake at this stage, move the shrouds up or down until you reach the above rake and tension settings.

Now you can attach the lowers, before making them off check the mast is straight sideways. With the lowers just tight pin them. Don't be surprised if you are in different holes on the adjusters (if the mast plate is not 100% correct or the lowers are fractionally different lengths the lowers will not go in the same position). You

may need to have the mast gently pushed toward you to get the second shroud attached. If you are heavier than average (140 – 145 kgs) you should try the lowers ½ to 1 hole tighter than described above.

Now pull on the uppers until they read about 10 on your gauge.

Check your spreader deflection, I used 140mm from back of mast to a line across the spreaders.(140 to 160 is now a class rule)

You now have the basic starting settings, which are good up to 15 knots, if you average combined crew weight (140 kgs).

### The Jib.

The jib is the easiest and most immediate method of powering the rig either up or down.

In light air 0- 10 knots - the luff should be slack maybe even scalloping between the hanks slightly. It should be set on the middle clew hole and the bottom of the sail at the tack should be about half way up the adjusting plate. The innermost setting on the self-tacker traveler is in the third hole from the centerline.

As the breeze gets above 10knts you should start to move the jib out board and tighten the luff. The trick here is in the feel of the boat – if when you bear off a little for speed rather than pointing the boat feels “staggery” then you may have the jib lead to far in (or the main to deep).

My preference is approximately as follows: - hole3. 1 – 12 knots,  
Hole4. 13 – 20knts, hole5. 21 – 25knt, hole6 !!!!!!!!

Progressively increase the halyard tension until its very tight.

### Cunningham.

The discovery of this will change you whole windy experience.

I have put 8:1 on my boat; and along with the kicker made the control tail continuous. This will allow you to “lean” on the Cunningham in very strong breeze without the rope slipping back in the cleat or hurting your hands. This control is generally the last port of call for depowering, use it progressively until its very windy and then you’ll feel it “lock out”. Don’t pull it any more than this.

When using this much Cunningham you must ensure you have fully hoisted the main and pulled the stretch out – then tie the halyard off to stop it slipping in the cleat. Alternatively replace the cleat with the longer version.

### Kicker.

Upwind in light air it must be slack, you will only need to take up the slack once you are twin trapezing and having to ease sheets in the gusts. Once the main is always eased more kicker will need to be applied, as you become over powered apply more kicker until diagonal creases appear, don't apply more than this, to depower further use Cunningham.

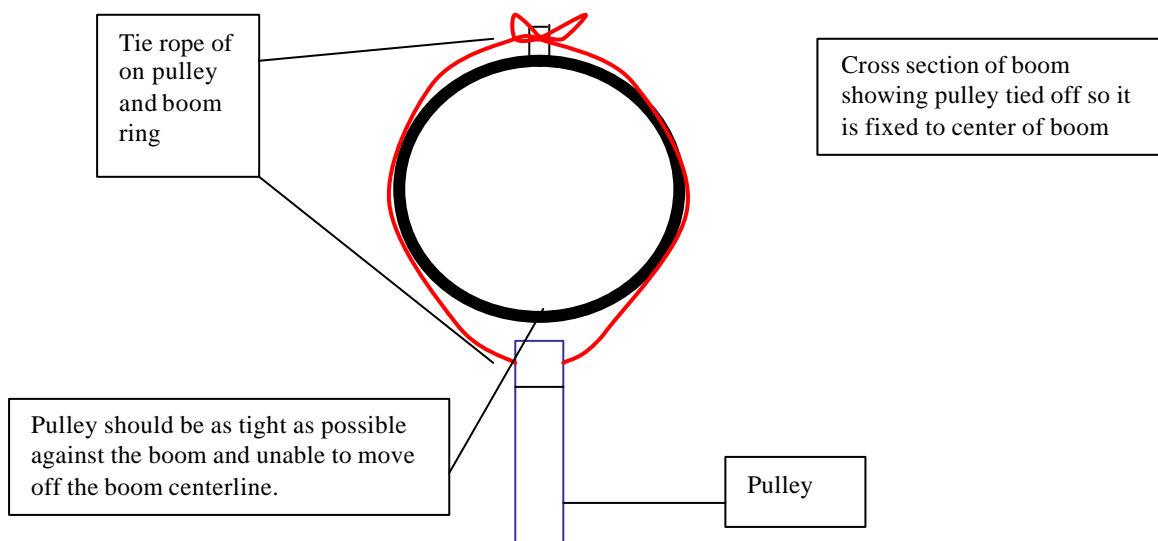
### LOOSE SPRING GAUGE MODEL NO PT-1 METRIC.

Scale.	3mm wire (kgs)
18	90
21	120
24	150
28	190

### Mainsheet systems.

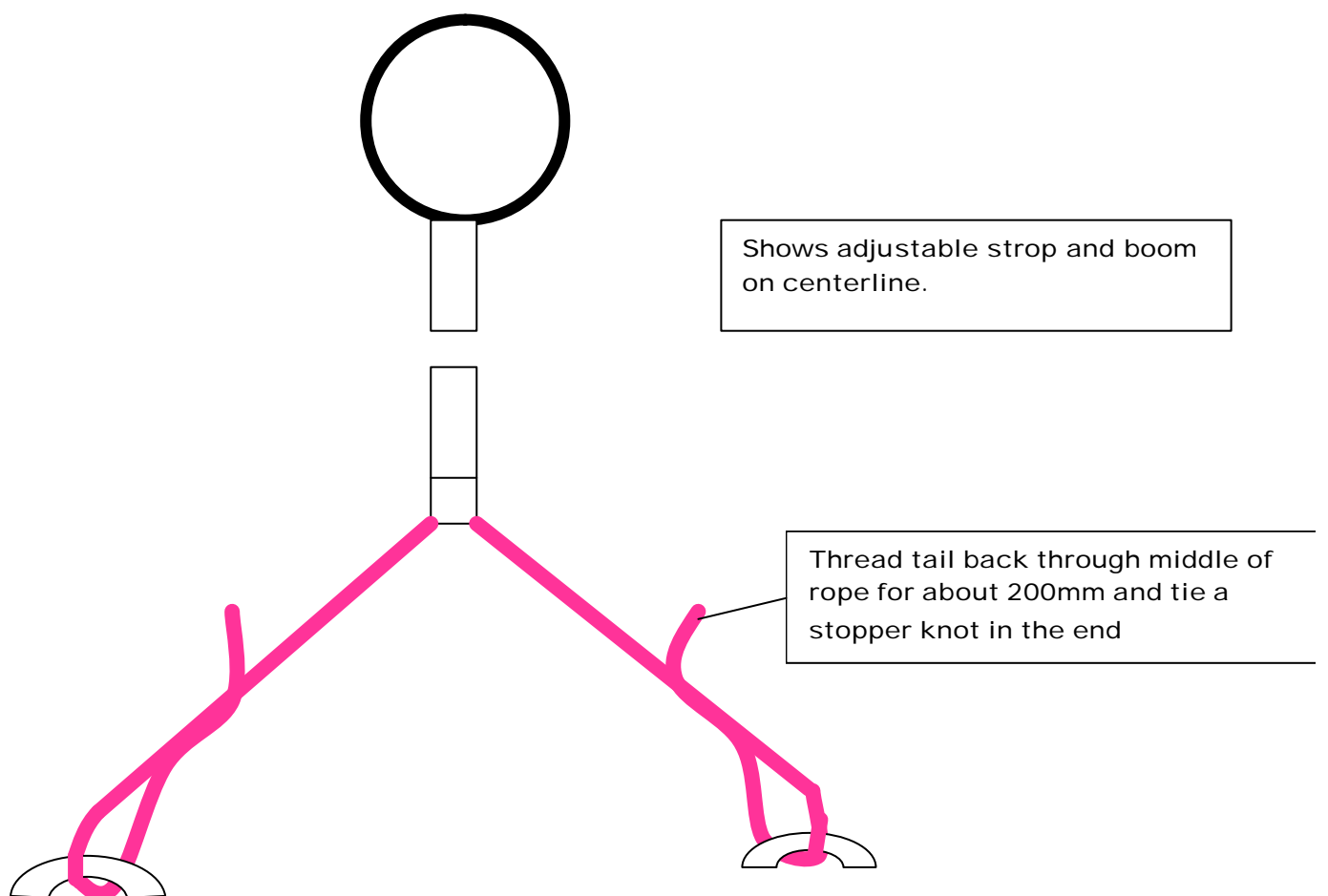
In light to medium it is important to get your boom over the centerline of the boat, so a good mainsheet is essential.

The system as supplied is ok, but can be quickly improved by tying the mainsheet pulleys as close to the boom as possible and locking them of so they cant move away from the center of the boom.



The next step is a readily adjustable mainsheet strop to get the pulley at the right height.

This is done using Holt or Marlow's unsheaved spectra/dynema/vectran rope.







The above photo shows the double strop system, strip the end off the main sheet exposing the spectra core, the splice and sew in an identical piece of spectra ensuring its long enough to pass through at least the first pulley on the boom. This system gives the ultimate center sheeting allowed by class rules.

END