



420 Setting Up Guide

First of all these notes are not to be regarded as a definitive method of tuning your 420. They are intended as a guide to help you set it up as a good basis for fine tuning. All the settings listed are based on those supplied by various sailmakers, and on the experience of current sailors. They are all based round the Rondar 420 but apply to other manufacturers.

MAST & SPREADER SETTINGS.

a) Spreaders.

Sails	Mast	Length	Deflection
Speed & Lenam	Superspar	475mm	170mm
Speed & Rondar	Superspar	465mm	165mm
North	Kappa	470mm	160mm
North	Superspar M7	470mm	175mm
Banks	Kappa	465mm	140mm
Hyde	Kappa & C	475mm	120mm

b) Rake

N.B. The mast heel is as far forward in the boat as is possible in all cases.

Speed & Lenam	19' 9½"	to	19' 8½"
Speed & Rondar	19' 10½" (light)	to	19' 8½" (v.heavy)
North	19' 9½"	to	19' 8½"
Banks	19' 10½" (light)	to	19' 6" (heavy)
Hyde	19' 11" (light)	to	19' 8" (heavy)

c) Rig Tension

Speed & Lenam	Superspar 30

Speed & Rondar	Superspar 28-30	
North	Loos: 36 (light) 38 (heavy).	Superspar 28 (light) 30 (heavy)
Banks	400lbs. Loos: 38	Superspar: 30
Hyde	3501b on Jib Luff Loos: 35-36	Superspar 27-28

d) Chocks

Speed & Lenam	0 (Light)	3 (Medium)	0-1 (Windy)
Speed & Rondar	0 (Light)	2-3 (Medium)	1 (Windy)
North	0-1 (Light)	2 (Medium)	1 (Windy-20+)
Banks	0 (Light)	3 (Medium)	2 (Strong)
Hyde	0-1 (Light)	3 (Medium)	2 (Windy)

SAIL SETTINGS

These are all generalisations, and apply to all sail makers. Variations will be according to crew weight, wind and sea states - and the basic skill of the sailors! They are also based on the assumption that the sails are in good condition, and are not worn out.

Main.

The top batten should be untapered, and have a typical stiffness of about 2.2Kg. Apply very little tension in normal conditions (not more than is needed to just eliminate vertical creasing).

In stronger winds, push the batten in quite hard, and secure with a good deal of compression on it.

The cunningham should only be needed when overpowered to move the draft forward and to open the upper leech.

The outhaul is normally pulled on tight. If you can adjust yours, ease it about 25mm in a light air chop, and possibly off wind. It is usually, on a 420, impossible to adjust!

Kicking strap tension only needs to be applied when the main starts to be eased to prevent heeling, and to hold the correct leech profile. As the wind gets up, use as much tension as you can physically apply - make sure you have a 12:1 purchase.

The top tell-tale lets you know your leech tension; it should be flying at least 90% of the time.

Jib.

The 420 jib, even with the new sheeting positions, if used, still needs to be barber-hauled in

all except the heaviest winds. To do this, pull in the jib sheet hard, then ease it 1" (2.5cm). Now pull in the windward sheet hard and cleat it. In light airs, only pull on a little barber haul.

BASIC RULES FOR 420s

1. Play the mainsheet all the time.
2. Barberhaul at all times (except in the extremes).
3. Use as much kicker as possible in heavy winds
4. Never use the cunningham until overpowered.
5. SAIL THE BOAT FLAT AT ALL TIMES

Other Points to help.

The usual points about a clean, fair hull and foils apply especially to a 420, because it is not exactly over endowed with sail area. Remove all nicks, scratches, chips etc. from hull and foils. Check that the slot gasket is in good condition. Ensure that the centreboard moves easily - you need to be able to adjust it as you sail. Make sure that the rudder locks down properly - it is wise to carry a spare pin out on the water.

Over the past few months there have been several rule changes made. Some are easily fitted, others less so. You can now have the outhaul cleat anywhere on the boom. If you move it forward, the 10 minutes it takes lets you adjust the outhaul. You will need a longer piece of rope.

Secondly, you can now have a six part purchase (not cascade) system for the jib halliard. This is a good idea because it means you can both rig the boat single handed (no need to bounce on the forestay) and adjust the rake of the mast between races while on the water if conditions change. But do calibrate the positions for different rakes so that you get the rig tension right.

The inboard (well, a little bit further in) sheeting position is hard to fit unless you have very long, thin arms. They are, as far as can be seen of marginal benefit, and then only under limited conditions. You can certainly sail fast enough without them to get into the front 10 at any open.....

On the standard Rondar boats, the kicking strap has a 6:1 purchase system (cascade type). It is important that unless you are remarkably strong, to adapt it to 12:1, as allowed by the rules. This not only gives you far more control, but, means that it is easier to let it off when wanted. Do, however, make sure that you have given the system enough travel. You may need to re-position things like cleats to let you pull it right on. 4mm or 5mm "Spectra" and

micro blocks are fine, and will stand up to any possible strains. The exact method of fitting it will depend on the age of the boat, because there have been various modifications fitted over the years. Let alone previous owners mods.

With DRY jib sheets, set up the boat on shore and mark the jib sheets for barber hauling;

this way you can get the settings right. Later you can, if you want, stitch in a contrasting colour of whipping twine, which doesn't wear off as quickly as permanent marker.

Set up the spinnaker sheets with knots on the inboard side of the fairleads or blocks, set so that the pole is just off the forestay. These apart from anything else, stop the spinnaker wrapping itself round the top of the mast when things go wrong. They also allow you to set the spinnaker faster.