



Lowside Bowness-on-Windermere WINDERMERE
Cumbria LA23 3DH
sg@goachersails.co.uk
Tel: +44 (0)15394 88686

GOACHER SAILS GP 14 TUNING GUIDE

Goacher Sails GP settings

Measured on 2008 Duffin / thro deck sheeting / Selden mast

Transom to front gate	2888 mm
Transom to aft face of mast at heel	2830 mm
Transom to shroud	2405 mm
Shroud to shroud	1329 mm
Jib tack pin to shroud	1959 mm
Jib tack to back of tracks	2390 mm
Jib tack to front tracks	2314 mm
Rake	6624 mm at 29 on Loos professional
Front face of mast to deck	15 mm (gate removed for measurement)
Spreaders	380 mm from groove
Spreader deflection	180 mm tips to aft face of mast
Jib tack to deck	50 m
Mast foot position transom to aft face	2820 mm

Andy and Ian's GP tuning tips

With the mast down the spreader length is easily measured from the mast to the point where the shroud runs through the spreader. Spreader length controls the lateral stability of the mast, and how easily the mast is allowed to bend off, de-powering the rig.

Spreader deflection is measured by placing a straight edge connecting the shrouds at the spreader tips. The deflection is the shortest distance from the straight edge to the rear face of the mast.

Tension

GPs can take a large amount of tension. Tension stiffens the rig and reduces luff sag in the genoa when sailing. Rig tension is a powerful control and must be measured accurately. I heavily recommend splashing out on a rig tension gauge, preferably a Loos as these are the most reliable and accurate. The important thing with rig tension is consistency, far more than the actual number of it. To this end always use your own tension gauge and don't borrow other people's as gauges vary. The normal amount of tension is 400lbs. On this Loos gauge we use 29 1/3. Mark the height of the wire on the mast, so if you decide to change settings on the water you have a reference point

Steve's note - When conditions get very light and difficult ease the rig to allow luff sag in the genoa which rounds up the entry and makes it much easier to sail. In a GP it pays to hold tight rig in breeze as this hold the genoa flat. The main is designed to flatten off sufficiently even with lots of rig applied.

Mast Rake

Attach a tape to your halyard and pull up to the top black band When you are sure that this is correct, walk the tape to your transom and measure to the top of the middle of the transom. Rake measures 21ft 9½ins at 29 on Loos professional. Mast sits 10mm out of gate at this setting.

Chock

Using a chock to control the amount the mast bends at deck level when sailing is extremely powerful. To which end I recommend using two 5mm thick chocks as apposed to one 10mm chock. This allows us to control the setting more accurately. Placing the chock in front of the mast keeps the mast straight and the main sail deeper. The middle of the mast is pushed aftwards but the tip of the mast is moved forwards which means that the main leach is tightened; this also helps to give us more power. Most people tend to put the chock in and leave it. A quick guide to know when to take it out is simply: am I over-powered? Am I easing mainsheet? If so-de-power! Take a chock out.

Leach Tension

Is critical and for the main is controlled either by mainsheet or by kicker. Key thing to think about is: we want to harness as much power as possible by turning the breeze through a large angle but not jeopardise the overall flow over the sail. Use only mainsheet tension to control the leach in less than around 8knts. This is where centre-main sheet users can benefit as are able to control the leach with only a click or two of the ratchet block. Remember that the mainsheet and kicker have two different effects on the rig. The angle that the mainsheet pulls means that it is effective at closing the leach, the kicker also bends the mast, which then opens the leach. Basically don't use kicker tension until you have to, in order to maintain power in the leach. With more breeze kicker is needed to maintain the leach telltales stalling less than half the time. In overpowered conditions the boom end should be set on the quarter with kicker applied as necessary.

Jib Cars

These control the leach tension in the jib. On our Duffin both of the cars are controlled by one piece of rope lead back to the helm near the mainsheet. A key thing to remember however is that although the cars do control leach tension the sheet tension has by far a greater effect on the leach tension. This is why I would also recommend marking up the jib sheets at deck level so that you know that when you come out of a tack the jib is correct to within about 2mm. Be careful in windy weather as the cars should only be moved backwards to keep the slot open when the main is being eased over the edge of the transom. It is far faster to de-power the main to get it back in closer to the centre line than to potentially sacrifice pointing by going cars back. So in short, only go cars back when it's very, very booming! Be careful about jib sheet tension.

Genoa luff tension

Goacher sails do not normally sew in the luff wire. This has the benefit of being able to adjust the luff tension and height of the jib. I prefer to use a cleat on the foredeck although a cleat on the sail itself is also useful. More tension de-powers the sail by flattening it and also rounds the luff up to make it easier to sail to in waves. Remember that if you adjust your rig tension the luff sag and therefore entry angle of the jib is affected.

Cunningham

We feel that cunningham is an under used tool. Goacher sails tend to pull the luff rope in the main sail fractionally tighter than in other sails. This gives us the adjustability as there is always some elasticity in the luff which can be pulled out using the cunningham. We find this makes it easier to let off going downwind. The cunningham should be led back to the thwart, for easier access, most likely to be for the crew. Cunningham de-powers, don't be afraid to really grind it on in the wind, although I recommend that it is the first thing that is let off in any lull. Cunningham also bends the mast off and slightly opens the leach, so don't forget to readjust your kicker.

Outhaul-Inhaul

At the tack on the mainsail, you should use either a piece of rope around the mast or as supplied on Goacher sails a mast slider which slots in the track. This is better than using a pin on the boom as can be allowed to ride up when going off-wind. A useful trick for light winds is to let off the outhaul, push the tack up the mast and jam on the outhaul again. This pulls the clew towards the tack which is now higher and takes the pressure of the boom off the leach when there is not enough breeze to keep it open.

Steve's note - *makes your main wear out more quickly though!*