

Boon Boats Solo FRP tuning guide

The Solo is a boat with a relatively simple rig. Once you are on the water there is little adjustment possible. It is essential therefore that you get the right rig settings before launching. The following settings are those used by the top guys with great success this season, they are a guide only.

Mast foot position

This comes marked in three positions from the bulkhead back ie, Heavy, Med , Light. As a rule the "Med" position is the standard setting for most inland use and is more commonly the standard setting. The boat comes standard with a nut and bolt that the heel of the mast sits over. On the extras list you can purchase a drop nose pin for ease of adjustment. The 3 mast foot positions are provided for use with a mast that is cut away at deck level

So positions for the heel pin from the bulkhead are, **hole 3 Heavy, hole 4 Med (standard) hole 5 Light.**

Forestay tension, use Selden calibrated adjusters (standard on Boon)

As a starting point set the forestay so that when the mast (without sail) is touching the back of the mast gate the forestay is just in tension. Mark this position on the adjuster. It is possible to adjust this on the water by back chocking the mast and letting off all the controls. It's also possible to get very wet doing this.

Shroud tension, use Selden calibrated adjusters (standard on Boon)

Set the shroud tension so that when the mast is 3/4mm from the front of the gate the shrouds are just in tension. Set the pin and split ring and tape up the pins.

Centreboard position

Turn the boat on it's side and fully lower the board so that the handle is touching the thwart. In this position the board should have approximately 25mm of forward rake. Now lift the board and mark the handle when the leading edge is vertical, relative to the bottom of the case. Lift the board further until the trailing edge is vertical and mark the handle. The board needs to be just tight enough in the case so that it stays where you set it, but you can easily adjust it with your foot when hiked upwind, or use the continuous uphaul system if fitted. **(Centreboard handle comes marked up as standard on the Boon)**

Rudder Blade

The leading edge of the rudder blade should be set beyond the vertical to reduce weather helm feeling at all times this comes **(as standard on a new Boon)**

Mast chock

Use 1 chock which just fits in the gap between the front of the mast and the front of the gate. **NB,** If you have a cutaway mast at deck level then 2 chocks will be required

By relating these marks to the chart below you can now set the rig, sail controls and centre board to suit the prevailing conditions.

Control/Conditions	Light airs (up to just sitting on side deck)	Medium airs (up to fully hiked starting to de-power)	Heavy airs (over powered)
Forestay	Release 2 full holes from mark in very light airs or 1 hole once on side deck.	Set on mark.	Release 1 hole from mark if just overpowered or 2 holes when fully overpowered.
Shrouds	Set on mark.	Set on mark.	Set on mark
Centre board	Fully down. Leading edge beyond Vertical	Fully down until hiking then raise to leading edge vertical when fully hiked.	Raise to trailing edge vertical then progressively raise to depower
Chock (if applicable)	Chock in front.	Chock in front.	Remove chock once fully overpowered.
Cut Away Mast (at deck level)	Both chocks in front	One in front one behind	As medium or both behind and free the forestay 1 /2 holes
Kicking Strap (Vang)	Just slack. Use mainsheet tension.	Slack. Use mainsheet tension.	Very slack. Or tension to increase mast bend and flatten the sail when fully overpowered.
Outhaul	50mm depth in foot.	100mm depth in foot.	100mm depth until fully overpowered then tension progressively.
Traveller	Lock off on centreline. Once on side deck ease 50mm.	Use mainsheet tension and position car below the boom. 100/150mm	150 plus from centreline. Again car below the boom, a little kicker and mainsheet tension
Cunningham	Slack	Slack until fully hiked then tension to remove wrinkles.	Tension progressively to de-power.
Loose Tack	Slack.	Pulled a little tighter to move the sail draft slightly further forward	Tight. Draft forward
Boom Position	End above inside edge of tank.	End above inside edge of tank to halfway between tank sides.	End above outside edge of tank to 200mm outside.

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You may have seen on some Boon solos that the mast is cut away at deck level. This is meant to correspond with the three settings on the mast step. This is only done from new if the customer requests it. All that's in the chart above still applies, however it allows you to move the rig backwards and forwards in the boat without changing the rake. The shrouds remain set throughout, but the forestay is adjusted accordingly. With this setup two chocks are required, One in front and one behind for medium and heavy weather settings and both in front for light.

The heavy weather settings with the mast all the way forward are provided to help reduce weather helm. The medium settings are more standard, however the light settings using the mast cutout with chocks in front allow the rig to be positioned further back in the boat, this combined with the forward raking centre board allow more height to be gained to windward.

Because Solo's are relatively easy to sail a significant boat speed advantage is hard to find. The standard settings used on the Boon FRP Solo are based around a Solo sailor weighing 82-90kg using a Selden Cumulus or D+ mast and a North sail cut to match.

However these settings would still apply providing you use the correct mast and sail combination for your weight. If in doubt, check with your sail maker. The settings are dependent on sea state, weight, mast, sail and fitness. So for instance in a force 3 a 90kg helm would be on full power settings whereas a 75kg helm with the same rig would be on overpowered settings. The overlap between settings can be achieved with a combination of rig, sail and centre board adjustment.

Don't panic! There are different ways to achieve the same result. If for example you are caught out with full power settings in over powered conditions raise the centre board further, use more cunningham and outhaul tension and sail with more twist. Although not quite as quick as easing forestay tension this would allow you to hang in there and still be able to point. If you sail on restricted waters it is usually worth fixing the shroud and forestay and relying on sail controls and centre board position to adapt to wind speed changes.

Use a combination of mainsheet tension and traveller position to find the best speed upwind. As a general rule, start in light winds with the traveller on the centre line and little mainsheet tension. As the wind increases use more mainsheet tension and ease the traveller to stop the boom getting too close to the centre line.

Kicker tension in light winds should be set just slack so that it controls leech twist out of tacks. In medium and heavy winds set the kicker tight enough for the first reach this should give plenty of clearance for tacking. Once fully overpowered use kicker upwind to increase low down mast bend and flatten the mainsail.

In Solo's body position is extremely important. In very light airs your body weight should be centred on the thwart do not move forward of this point **however light it is**. Once you are sat on the side deck move back so that your front leg is just up against the thwart. As you become fully hiked move back to 150mm from thwart, and then up to 300mm as the wind increases.

Offwind summary

Use only enough centreboard so that the rudder is neutral when the boat is flat with the following sail settings;

Light airs:

Leave the Outhaul on it's upwind setting. The kicker should be just in tension. Tack adjustment, loose.

Medium airs:

Ease Outhaul so that lens foot is fully eased (you should have a knot in the control which hits the bottom of the boom when lens is fully eased). Set the Kicker so that the bottom of the sail needs to be slightly over sheeted to keep the top set. In medium airs the kicker tension is a compromise between leech tension and keeping the mast as straight as possible. If planing is a possibility keep the boat as flat as possible and take the mainsheet 2:1 from the boom.

Heavy airs:

Only ease the Outhaul and Cunningham if you can use more power. Set the kicker as for Medium airs or ease to de-power.

By spending time on the water preferably with a tuning partner you will be able to establish the right settings for all conditions. This will allow you to concentrate more of your energies on finding the quickest way round the course