

Foundation 36 Notes

Main Controls

Main halyard:

Tip: Always winch with at least 5 turns around the winch drum for max grip.

Raise Mainsail and winch up until luff is smooth, no wrinkles, and the luff line system on the lower slides is tight and holding the luff to the mast.



Put a tape mark on the deck as show in Blue in photo. Tape Mark Halyard at the Blue position. This will allow range if you have to increase halyard tension if the wind speed is high, so you can remove stretch. Red mark in front of the Clutch is a possible maximum in fresh breeze.

The aim is to be able to leave the main halyard in the set position, and make further adjustment to luff tension on the Cunningham. (You may have to tie back over the Jammer if there is halyard slip).

Mainsheet fine tune:

Pull fine tune until block to block, maximum on. Mark fall of mainsheet where it enters the deck. (Blue mark in photo)



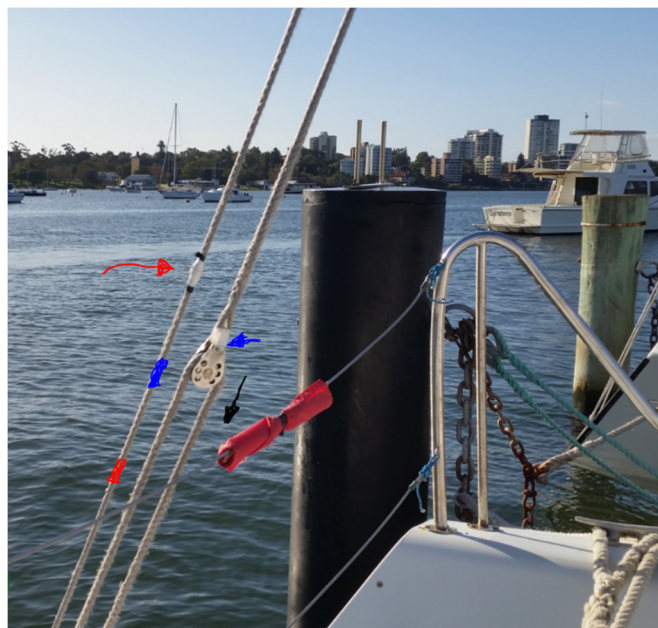
Mainsheet:

With the Mainsail raised as above, the Backstay and the Main Fine Tune fully eased (Blue mark may be higher than in Photo), pull the Mainsheet on with moderate tension and mark the mainsheet where it exits the mainsheet jammer on the Ratchet block. (Red mark in photo above)



Backstay:

With the backstay fully slack so the deflector at the mast head is pulling the backstay back away from the mast, put a Tape mark on the fixed part of the backstay, as arrowed in red in the photo, where the top of the block (arrowed Blue) is in line. Pull the backstay on hard, and place a mark as shown in red where the top of the block is at the Maximum on position. Other marks on the fixed part, as shown in blue may be used to calibrate.



Vang

When sailing on the wind with the mainsail sheeted firm, pull the vang on and mark the standing part(s) where the top of the block (Marked Blue) aligns.

When running downwind, with Backstay and Cunningham eased off, ease Vang to relax tension in the Leech and mark Block position. (Black in Photo)



Before a leeward mark rounding, the vang should be pulled on to the Red mark to make it easier for the mainsheet hand to sheet the Mainsail in. At the same time the Main Outhaul and Cunningham should also be pulled on to a setting appropriate to the wind strength.

Main Outhaul:

Pull Outhaul to maximum and put a tape mark on the Outhaul line behind the cleat on the boom.

Then Ease the Outhaul so that the Foot of the Mainsail is about 100mm the leeward of the boom when sailing upwind. Tape mark the Outhaul line again at the back of the cleat at this setting.

Use Outhaul to adjust the Depth of the main, along with the Backstay.

Main Cunningham:

Use the Cunningham upwind to add luff tension and control draft, and remove luff slide wrinkles.

Remember to release the Cunningham, along with some Vang, just before or soon after the Windward Mark rounding to relax the main luff for the Downwind leg.

Jib Halyard:

Tip: Always winch with at least 5 turns around the winch drum for max grip.

In a similar method to the Main Halyard, Raise the Jib or Genoa as tight as possible by hand with the Mast person sweating the halyard up. (You may not have the Jib halyard winch free when you initially hoist the headsail prior to a Leeward mark rounding, but you will be able to sail and finalise tension as soon as possible after if pressed)

Place a Tape mark on the Deck as shown in Blue and a corresponding Tape mark on the Green Jib Halyard in this position. (You may need a second Different colour mark, on the halyard for the other headsail.)

You will find that you need the range, from this Blue mark to the Red mark near the Clutch to get sufficient Luff tension to cover the wind range and gain good draft position in the Headsails.



Spinnaker gear

Pole Topping lift:

With Pole ring on the Mast track at middle of track, set Pole horizontal and Tape mark the Topping lift behind the cleat (Red mark).

For a light air or Reaching Pole position, Lower the Pole ring to the bottom of the Track and lower the Topping lift until the pole is Horizontal. Place a tape mark on the deck where the original mark on the Topping lift ends up forward of the cleat. (Topping lift Blue Mark, but it may be further forward than shown)

Pole Kicker

Some prefer not to use the Kicker, but if you do, Tape mark the Kicker when you have the Pole in the initial Mid track position, just behind the cleat.

Spinnaker Tweakers

Pull tweaker block about 400mm above deck from Fairlead and cleat. This setting is a general setting that may only need to be adjusted if going more shy on a Downwind leg or the Pole is lowered in light air and you are sailing hotter angles. If this is the case, then the Pole is usually lowered to the Lower setting with the pole ring at the bottom of the Pole Track, and the windward side tweaker is pulled to the deck and the leeward side is released.

As the spinnaker sheet blocks are set well forward of the stern on the Foundation 36 (as they usually sail Windward Leeward courses with square runs), it is important to lower the pole when trying to sail shy, so that you effectively sheet the spinnaker further aft, thereby straightening the foot and freeing the leech. Otherwise the leech will tighten, slowing the boat.

Genoa Car Track Positions:

Mark a reference point to work from.

Count the Screws from the back of the track. As there are two Pin Holes between the screws, perhaps call the position shown in the photo below as 8.1, with 8.2 being forward one hole, and 7.2 being aft one hole. For Example, the Genoa will have a range from about 8.1 in light wind, to 7.1 in heavier wind.



The Genoa car roughly moves a similar amount to the halyard tension, so if you tension the Halyard 100mm as the wind increases, then the Genoa Car will need to move aft 100mm or 2 holes.

Place a tape Mark on the 8th screw and reference “1 hole aft, 2 holes aft” etc.

Jib Car Track Positions



The Jib Car position is shown roughly in a Mid-Range position, screws numbered from the front of the track.

Place a tape mark on the 9th Screw and reference “1 hole aft, 2 holes aft” etc.

Jib Sheet Marking:

Tip: Put a tape mark 300mm from the end of the Jib Sheets you are going to Bowline to the clew. Put the tape mark on the clew ring and tie the bowline so that the tape mark stays on the clew ring. Repeat with the other Jib sheet. Then you are able to transfer marks made on one sheet to the other, or compare the two to equalise.



Genoa:

Sailing on the wind, set up car position so that the Genoa foot touches the cap shroud as the mid leech is still about 50mm outside the Spreader Tip. With the Jib sheet loaded in this position, put a tape mark on the jib sheet at the end of the Jib Track (Blue Mark)



Now sheet the Genoa on until the Mid leech is in line with the Spreader tip (the Foot will wrap firm around the Cap Shroud), and place a tape mark on the Deck under the mark on the Jib sheet for Maximum Trimmed On Position (near Deflector ring or maybe to Red Mark in Photo above). Make sure the leech ribbon, if fitted to upper leech, is flowing.

You can repeat on the other tack or drop sail and pull the two sheets alongside each other, holding the clew and pulling both hand tight and transpose the marks onto the unmarked sheet.

Repeat the procedure if using the Jib, ensuring the clew end of the sheets are tied with the 300mm marks on the new sail clew ring so the Jib sheets are even, so you are ready to place a new mark on the Jib sheet for the Jib.

For the Jib, sheet on until the jib leech is vertically in line with the Cap shroud and the foot coming close to tight. Mark the Jib Sheet at the end of the track, and the sheet range should be between the end of the track and the Jib sheet deflector ring, just bringing the Jib leech inside the line of the Cap shroud for a Maximum Trimmed On Position. Make sure the leech ribbon, if fitted to upper leech, is flowing.

It is very easy to over sheet the Jib, and the Genoa, because as the wind strength eases, as the stretch in the Jib Sheets under load tends to retract and effectively trims the sail on as the wind eases. So careful attention to Trim is required in variable/gusty conditions.

Jib Tack and Pulpit:

The Jib tack has a piece of shock cord holding the snap hook Vertical. (Circled in Blue) This is to prevent the hook from falling over the U Bolt Pad Eye when the jib is dropped, and jamming and being distorted when tensioning the jib luff. Check that this shock cord is in place. If not there, request a replacement. If not available, check that the hook is vertical before loading luff tension.



The Red line above is a showing where you may place a Sail tie or line, tied through the rail lugs, to prevent the Jib or Genoa Foot falling over the front of the rail during a downwind leg prior to the leeward mark rounding.

Tacking - Crew Positions

Weight considerations. Jib Trimmer/Grinder should be the lighter person in all but light conditions so that weight is on the rail as required. The heavier person should be the tailer and the lighter person the Grinder do final trimming and adjustment as required in wind strength changes.

Communication is important between all crew, especially the Helmsman and Grinder/Trimmer and Mainsheet hand that they are all in sync and the trim happens in sync too, and adjustments are made to keep speed up as wind changes. Crew on rail should be calling gusts and looking ahead for patches of wind pressure especially in light fluky conditions.

A count down or count up to a tack is useful to alert crew to the positions during the tack, or gybe.

Such as "Ready to tack", to alert all crew, "Tacking in 3... 2, 1" where at

3: The grinder goes to leeward ready to release, winch handle out, Tailer swings in ready to tail,

2: The Helmsman starts the turn, and steps over the tiller, looking forward, Mainsheet hand moves across and eases the main slightly, the Tailer moves across in front of the winch, bracing ready to tail, and grinder Jib sheet in hand ready to release on 1, other crew start to cross over

1: The Grinder releases the jib sheet as the Headsail starts to back (not before backing) and the tailer hauls in as the Grinder crosses to grind sheet in to the acceleration mark, then takes the load of the sheet from the tailer, and Other Crew Hike out, (sitting side saddle can be more effective)

Communication between Helm, Mainsheet and Trimmer as speed build and final trim. Trimmer to windward rail, but maybe sitting out facing in ready to adjust in lighter conditions.

As the Tailer comes off the rail they take the new Jib sheet across the boat as the boat tacks through head to wind and tails from the new Windward side, in front of the winch.

Mainsheet hand may ease some fine tune, or coarse tune if that is all that is used in light air, as the boat passes head to wind, and as they cross over ahead of the tiller.

Once the grinder has the sheet to the Power or acceleration mark, they take the sheet pressure from the tailer, saying "Mine" so the Tailer knows they can release and go to hiking position.

The Grinder puts any additional turns required on the winch, and once the boat is up to speed, they trim the sheet Mark to the Maximum Trim On Mark, cleat off and go to hiking position. At the same time, the Mainsheet hand trims the main back to the previous Maximum trim marks appropriate to the wind strength.

Mast and Bow persons cross either across cabin top (close the hatch) or around the front of the mast. If around mast, usually on 2, the Mast person goes first and to the new windward side and the Bow person to the old windward side, going to the new windward rail after the headsail has cleared across. As there will be no life lines, there will be no need to skirt the foot.

Spinnaker

Set up for Starboard Pole Hoist, with Pole on Deck inside the shrouds, brace in Pole beak.

Spinnaker head and clews out of the hatch.

If possible before windward mark on Starboard tack approach, Pole on mast Topper to mark, Pole Horizontal,

As you round Windward mark, ease main and headsail for the reach to the separator.

Bow feeds Spinnaker tack to Pole, even grabbing Brace from windward side of pole had helping clew to beak.

Mast person hauls Spin Halyard and then grabs clew of Headsail to make sure it doesn't foul Spinnaker clew as it is dropped. Bow gathers headsail forward ready to gybe, headsail sheet in hand at mast.

Cabin top winches are used for spinnaker sheets. Spinnaker sheets are just long enough, but you may need to tape the Windward sheet to itself abeam the cabin top winch so it is near to hand to put on the winch and doesn't slide overboard before loading to the winch and starting to sheet in the brace.

Tweakers set at 400-500 mm up.

Pole back as required, but try to keep clews level, horizontal, and Luff Vertical from Pole end for more projected area. Some examples are below on BW-8s.

- Good trim, Main could be eased

Not so good, Pole could be braced aft

Main should also be eased out and vang tensioned



Other Tips:

When Deep square running with Pole back, the Clew should end up eased so it is near the forestay, just on the leeward side and the boat heeled slightly to windward. Tweakers may need to be pulled to deck.

Practice gybing without a pole using the Mast Person as Human Pole.

Get used to taking pole off early, and when on Port tack approach to a Leeward mark, do a windward drop so the Spinnaker is ready for the next hoist.

Look for Pressure, and gybe to sail under pressure, and clean air.

After Spinnaker set:

Make sure Main is fully eased to end of mainsheet, Ease Cunningham, Vang, Backstay and some Outhaul (but not too much, Projected area is better),

Pull spinnaker halyard through to cleat on cabin top and cleat, release Mast cleat, flake out halyard clear for drop.

Before Leeward Mark Rounding:

Reset Vang, Backstay and Outhaul to previous settings, or to new setting to suit change in wind strength.

Headsail hoisted hard by hand through clutch, ready to go on the starboard Cabin top winch after Brace has been removed during drop. If wind Light, Transfer Brace to Primary winch so Jib Halyard can be loaded and tensioned to setting prior to Mark rounding.

Mark Roundings:

Windward Mark to Separator, ensure Main and Headsail ease in sync, and they ease **before** using helm to turn to minimise drag and aid acceleration. Have as many crew stay on the rail as possible until the bear away at Separator. Avoid turning hard using excessive helm.

Leeward Mark: If room available and no traffic, try to position for a wide smooth turn so that the Main and Headsail can be sheeted in sync, so the boat is accelerating into the mark. Again, avoid hard turns wherever possible. Drop, Gybe roundings are usually slower but sometimes unavoidable. Round mark in Acceleration mode and trim in fully when boat speed up where possible, unless traffic dictate otherwise. Try to be prepared to tack away to clear air as soon as possible.

Mainsail Trim:

Try not to over trim, keep Leech ribbons flowing at all times, only occasionally stalling the top ribbon when trying for height, but avoid sacrificing speed. Check that the top batten at the leech is parallel to the boom.

Keep sail smooth, wrinkles are drag, so in light air use just enough Cunningham to remove luff wrinkles and then maybe leave uncleated. If you are getting excessive creases coming off the Lower luff slides, the main halyard may be too loose, and need more initial tension before the Cunningham.

Ease Outhaul to add depth in lighter air, but keep Mid woofs flowing, not circling. Check that leeward side Mid woofs are flowing too. If they are not flowing, it is an indication that the main is possibly over sheeted or too flat.

Use Backstay and Outhaul tension to remove Mainsail depth and open the Leech, removing leech ribbon stall, but remember that Backstay tension on will enable you to sheet the main harder, especially in heavier wind when you want to have a flatter main, when more Vang is used on to move the boom down off centre. The Backstay Tension will also to tighten the forestay and flatten the Jib at the same time.

When sailing to windward, use the Main Fine tune and Backstay to respond to gusts, easing Fine tune and tensioning Backstay to open the upper leech. Be careful not to over ease.

With the crew on the rail counting down gusts approaching, the Mainsheet hand should be ready to respond in communication with the Helm.

Initially the Helmsman should let the boat respond to the gust, with the Mainsheet hand easing the main fine tune or tensioning of the backstay reducing the heel, and usually allow the boat to lift to a gust without using too much Helm to fight against the rotation. The mistake often made is to pull the Tiller up to hold the boat on course, but that adds drag and sometimes cavitation resulting in the boat rounding up to windward.

In fresh conditions, the Helmsman can usually allow the first Wool in the Tell-tale window lift during gusts.