

## RS200 Tweaks and Tips

Ian Pickard gives the benefits of his experience, on the water, and in the boat park.

### Tweaks:

#### **ESSENTIAL**

- Kite halyard – in my opinion, the following changes to the kite halyard offer the greatest improvement to the standard RS200 specification, in terms of sailability.
  - Adding a floating block behind the cleat (see photo) makes a huge difference. It enables the kite to be hoisted or dropped from anywhere in the boat, ensuring the halyard cleats during hoists, if pulled from behind the block, and stays uncleated during drops, if pulled between the block and cleat. The block should be positioned in line with and slightly below the cleat. The block is held on thin rope tied between either two or (my preference) three points: the forward toestraps mounts and the control line block at the front of the centreboard case. The block is supported on elastic tied between the eyes at the back of the jib fairlead tracks.
  - Adding a fairlead to the top of the cleat helps the halyard cleat during hoists and will prevent the halyard from jamming under the cleat. I prefer the plain alloy fairlead (HAXxxx) to the plastic “pro-lead”, as they lead the halyard right across the cleat jaws and last longer. When fitting a fairlead, take the opportunity to replace the screws attaching the cleat with bolts and lock-nuts.
  - However, far better than adding a fairlead to the standard cleat is to replace it with a Spinlock PX cleat. In conjunction with a floating block, the Spinlock will stay cleated all the way through a hoist and uncleated all the way through a drop. Faster hoists and drops, less snags and knots, etc. – fantastic!
  - Lastly, the system can be improved by simplifying the halyard route around the boat. Unless you are one of the few teams where the helm hoists and drops the kite, the halyard can run straight from the floating block to the block at the rear of the sock (twin-patch system). With the older single patch system, a block should be tied to the port forward toestraps mount to lead the halyard under the thwart to the block at the back of the sock. Some owners fit this block with the twin-patch system, but I feel it is unnecessary and adds friction in the system. The block on the rear of the centreboard case can be removed and you no longer “cheese-wire” the thwart with the kite halyard. With this set-up, the halyard can be significantly shortened, reducing the chances of it going under the bow or around the pole.
- Gybing strop – essential for stress-free gybing in heavier winds. At present the rules only permit “thin line” (max. 5mm diameter) and preclude any fittings. Hence the best you can do is to plait some 5mm line, tie it to the forward mainsheet block eye on the boom and tie a loop at the bottom end around the mainsheet. The length should be just less than that between the boom and the ratchet block when going upwind – otherwise the gybing strop gets pulled through the ratchet with the mainsheet, probably jamming solid and resulting in a capsize. A rules change is currently being considered to permit thicker line and a ring or block on the end to weight it down – watch this space.
- Tweaker line – it is critical to correctly adjust the length of the tweaker line (i.e. the elasticated line emerging from inside the kite pole, attaching withinglefield clips to the line running up the mast). When adjusted correctly, the line becomes tight when the pole is at maximum extension. If it is too slack, the kite head will not be held against the mast and the tweaker line will chafe and break; if it is too tight, the pole will not extend to its maximum, reducing off-wind performance. To adjust it, lock the pole out at maximum extension by tying a rope to the launch-line block and cleating it in the halyard cleat. Then untie one of theinglefield clips. Pull the tweaker line through theinglefield clip until tight and tie off. It’s worth checking this fairly regularly.

## NECESSARY

- Rope lengths – as supplied, all the ropes are a fairly generous length. Pickard's First Law dictates that, if a rope can snag somewhere it will – usually around your feet on a windy gybe! Through trial and error (Pickard's Second Law is that there will be at least one error – cutting the kite halyard too short is my favourite), you should reduce all the ropes, especially halyards, control lines (incl. outhaul), and sheets) to the minimum.
- Jib luff tension – think you can't point? Most of the jibs seem to leave Hyde's with the jib luff tied very tight. Like pulling the cunningham on the main, this leads to a full entry. This may be ideal for wind and waves, when drive is more important than pointing high, but leads to poor pointing on flatter water. With the sail hoisted and rig tension on, untie the string at the tack of the jib. The tension should be adjusted for different conditions – minimum tension for lighter winds and flat water, more tension for waves and stronger winds.
- Kite halyard ball – depending on the strength of your crew, it is possible to pull the knot at the head of the kite through the tweaker line block on the mast. This will jam the kite up – not quick up the next beat – often requiring a capsized to free it without badly stretching or damaging the kite. This can easily be avoided by adding a small ball about 150mm from the end of the halyard. An added advantage is that this keeps the head of the kite away from the hounds, reducing the chances of ripping the head of the kite.
- Elastic at top of shrouds – to further reduce the chance of ripping the head of the kite, you can tie a length of elastic between the shrouds, passing around the front of the jib halyard and forestay. It should be approximately level with the head of the jib, prevented from sliding up and down the shrouds with tape around the knots, and not too tight or the jib halyard will cut straight through it. The elastic prevents the head of the spinnaker from jamming between the shrouds, forestay, jib halyard and mast during hoists, especially on port tack.
- Bung elastic – ever noticed how the bung always goes back in the hole? Annoying, isn't it! An easy solution is to untie the bung from the loop, pass it's string through the loop and tie it to a piece of elastic passing around the mainsheet cleat base or control line blocks under the thwart.
- Knots/balls/loops on control lines – when you've elasticated the bung, this keeps the hole free for the kicker, cunningham and mainsheet to go through – back to square one! The mainsheet is easily resolved by tying a knot in the end. The control lines can be sorted by either tying loops in the end or adding balls. I tie a second stopper knot about 100mm from the end of the control lines, so you can still get hold of them if they run all the way into the cleat.
- Mainsheet block height – as supplied, the mainsheet will run straight into the cleat from most helming positions, increasing the risk of a capsize when it's windy. My solution was to remove the cleat! However, unless you enjoy shredded hands on windy days, there is a less extreme solution. Adding shackles or thin rope (spectra for strength) between the ratchet block and swivel base will raise the block and improve the sheeting angle.

## DESIRABLE

- Mainsheet outside boom – the class rules permit the mainsheet to be led outside the boom, as long as it is continually supported for 80% of the external run. Depending on the thickness of mainsheet you use (I prefer 7mm Rooster Polilite) this can reduce the friction in the mainsheet system. The external support is important to prevent your head or clothing snagging the mainsheet during tacks and gybes, and can be made from sailcloth, sail window material, overhead projector sheets, etc.
- Elastic for kite sheets – short lengths of elastic can be tied between the shroud U-bolts and a hole drilled in the front of the grab-rail, running tightly across the side-deck. When the kite is down, the slack in the sheets is pulled through the kite ratchets and a loop of sheet passed under the elastic. This stops the sheets dragging in the water upwind, and reduces the risk of them dropping over the end of the pole and under the bow.
- Mainsail tack – I find the black strap used to attach the tack of the mainsail around the mast one of the most annoying parts of rigging the boat. A far more elegant solution is to shackle a slider (similar to that on the mainsail clew, but a plastic one will do because of the lower loading) to the mainsail tack, to run in the mast track. If necessary, a piece of elastic can be tied through the holes in the forward boom fitting and passed over the slider, to pull the tack down. An alternative to this, if your mainsail luff is long enough, is to simply pin the mainsail tack through the forward boom fitting.
- Centreboard elastic – I find that the centreboard comes up on windy reaches and runs, even with the friction pad tightened right up. To overcome this, and the inevitable windward capsize, I have tied a

loop of strong elastic with a plastic hook around and under the thwart where it attaches to the centreboard case. Once the water is deep enough, the centreboard rope is hooked onto the elastic. Problem solved, as long as you remember to unhook when returning to the shore!

- Gooseneck pin – ever had the boom fall off the gooseneck during a gybe? Mine used to regularly – painful and slow! A solution, borrowed from the 400 fleet, is to drill a small hole vertically through the boom and gooseneck and put a stainless pin through it.
- Tiller extension – as supplied, the tiller extension is just too long and tends to catch the mainsheet/gybing stop during tacks and gybes. At best this encourages use of too much rudder, slowing the boat. At worst, it jams between the mainsheet and gybing stop, ending in a capsize. There are various solutions. Mine is to shorten the extension to about 1 metre and slide the forward mainsheet block slightly forward on the boom. Some helms have the “twist-lock” extendable tiller extensions. Another problem is the failure of the rubber universal joint. Always detach the extension from the tiller at the end of sailing, to extend the life of the joint. However, they will all fail eventually, and Pickard’s Third Law dictates that it will happen halfway through the first race of a day at the Nationals, when you’re miles offshore. The answer? Carry a spare extension in the boom or front tank. Two other thoughts on tiller extensions. I like my Holt carbon fibre “lightning stick” tiller extension, mainly because when I drop it on a tack or gybe (at least once or twice a race!) it springs up in the air and is easy to recover. The heavier aluminium extensions drop onto the leeward side-deck or down the transom and are much more difficult to get hold of. Lastly, as supplied, the extension joint is just screwed into the end of the tiller, which is a relatively thin tube and the screws can pull out. I recommend removing the bung from the end of the tiller and replacing the screws with bolts and lock-nuts.
- Slot gasket – the slot gaskets tend to be slit too far forward, so they don’t seal against the front of the centreboard, resulting in a water fountain into the cockpit from the front of the centreboard case on fast reaches. The solution (other than a new slot gasket) is to stick something over the front of the slot gasket to seal against the front of the centreboard. Steve swears by mountain bike inner tube!
- Kite snags/chute ridge – check all areas that the kite can contact for snags. Pickard’s Fourth Law is that if it can snag, it will, and the newer the kite, the more likely it is to snag! Check all around the chute, foredeck, gunwales, pole, jib tack and head, forestay, mast, shrouds, etc. taping or sanding as necessary. Also, the new twin-patch chutes can have a large moulding ridge on the underside, which should be reduced or removed by sanding for smooth hoists and drops and longer kite life.

## IF YOU GET BORED

- Elasticated forestay – easier to show than explain, so see the photo. Basically elastic from the mast step running through a hole drilled in the chute by the pole. The elastic is tied to a piece of string, and a small ball is attached where they join. The string passes through the bow eye, up through the forestay and ties back around the bow eye. Very nice!
- Boom chafe pads – SuperSpars do some nice stick-on ones, but I made mine from duct tape! When combined with a correctly positioned knot in the mainsheet, these prevent nasty gouges in the boom where it hits the shroud.
- Rope tapering – either spectra or, if you’re rich, Hertzog can be tapered by removing the outer sheath to expose the core. Looks great – ideal for psyching-out Jon Lewis! Can be used on control lines, halyards and sheets (not Polilite, as the sheath is the load-bearer!). Reduced friction, weight, and windage. Worth the time and expense? Your call!!
- Bottle elastics – far easier than taping your water bottle under the thwart is to drill holes in the front and back edge of the thwart near the side-deck, and tie elastic through them to hold the water bottle(s).

## UNDECIDED

- Horse height/split mainsheet – I will not have a split mainsheet on my boat, but some helms swear by them. I like the horse tied short, so I can apply leach tension with the mainsheet when necessary. A split mainsheet would prevent this and also tends to explode the rear mainsheet block. Horses for courses?
- Horse elastic – some helms tie a length of elastic across the mainsheet horse. No idea why!
- Jib tack shackle – two schools of thought here. One says that a long shackle at the jib tack makes the sail set better across the pole and chute. The other says that a short shackle should be used to

get the jib down on the deck, creating an aerodynamic end-plate effect. Undecided, I've got a mid-length shackle!

#### Tips:

- After sailing, if the boat isn't straight on the trolley, don't slide it around the cradle by pulling on a gunwale, as this will damage the slot gasket. Lift it instead.
- Pull all the kicker line to the starboard side at start of race. On a port rounding windward-leeward course, you will want to let it off at the starboard side at the windward mark and pull it on at the port side at the leeward mark. Hopefully if you start with all the slack on the starboard side, you won't run out halfway through the race!
- Don't leave the kite in the chute at the end of the day, as this permanently creases the stiffening in all the patches, reducing the useful life of the kite as it won't set properly. Drape it in the cockpit overnight, and fold it between uses (after drying) being careful not to fold the patches
- Check that the kicker fastenings on the boom are tight. Otherwise the loop can slide forward and distort under load
- If you attach the main halyard to the sail with a ball and loop, pull the ball a long way through the loop before tensioning, as this changes the way the halyard loops through the sail, reducing the strain in the halyard. Also, depending on the wind strengths, move the knot by 20-30mm every month or so, to reduce the chance of breakage. When you run out of adjustment, reverse the halyard. When it finally breaks or is worn out, replace it with spectra, as this is less prone to breakage at attachment points than the standard kevlar.
- Mark the main and kite halyards where they cleat when fully hoisted, as this saves having to check up the mast when hoisting.
- Add calibration marks to all control lines. These can be the fancy numbered strips, DIY tape ones, or marker pen on the ropes, spars, deck, etc. This will enable you to repeat your fast settings easily on the water.
- The forestay eye-bolt often works loose, so check it is tight regularly. Be careful not to over-tighten, or you'll damage the deck.
- The screws that hold the jib fairleads to their stainless sliders work loose, and the fairleads can pull off under heavy load. Unscrew the track end stops and slide the fairleads off. Tighten the screws on the underside of the slider and refit – no, I don't have an easy answer to getting them back on with the plastic friction strips in place!
- Check the mast step alignment – a few of us have had trouble getting the mast upright in the boat. You can check this when measuring the mast rake by checking that the mast-tip is the same distance from both corners of the transom. If not, it is likely that the mast step isn't in the centre of the boat! Check this with the mast down and spinnaker chute clear by crouching at the transom and sighting from the top rudder fitting to the forestay eye. It will be very obvious if the mast step isn't central. If you have to move it, ensure you properly fill the old holes with epoxy before re-drilling and screwing.
- Don't coil the kite halyard when you take the mast down, as this twists it along its length, resulting in knots during hoists and drops. Instead, run it between the spreaders and pole eye. If you have to replace the halyard, Excel Pro or Excel Race are better than 8-plait rope, as they are less prone to twists and knots.
- Finally, if in doubt, tape it! I use PVC electrical tape all over my boat, much to people's amusement. However, I've never had a shackle come undone, a split ring come out, a kite snag, etc. As a start, try taping all the following: shackles and eyes at the jib tack and head (incl. the halyard eye splice), the tiller extension joint, all kite halyard and sheet knots, shroud pins (incl. the top of the shroud plates, to prevent snags), the kite ratchet shackles, all pins and rings (especially the spreaders), all shackles (especially the kicker & mainsheet blocks), tape over the holes where the shrouds attach to the mast (so the terminals can't fall inside the mast and twist/break during rigging), the toestraps elastics, the screws in the mast heel plug, and the compass bracket (if fitted).

If you don't quite understand any of the above, accost me at an event and I'll explain. Alternatively, have a look at my boat. There you go, that's all the secrets given away!

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