

Sailspar Roller Reefing Gear Fitting Instructions

1- Check that the forestay the gear is to be fitted to is 1 x 19 stainless steel construction and in good condition. If not, replace with new. We recommend the stay is replaced if it is more than 8 years old.

2- If using existing forestay, check the stay is long enough. On an existing stay make sure that the distance from the bottom of the wire (ie the lowest part that can be cleanly cut) to the fixing hole on the deck fitting is less than:- 300 mm on 4&5 mm f/stay, 310 on 6 mm f/stay and 350 mm on 7&8 mm f/stay. If this distance is greater than the above a replacement stay or a set of link plates will be required.

3- The backstay must be loosened by approx 38 mm. Mark the original bottlescrew position with tape. This will allow mast to be pulled forward.

4- Run a spare halyard forward to strong point and tension halyard to support mast.

5- Disconnect the forestay from the deck and remove old bottlescrew and terminal etc, leaving the wire end bare.

6- Attach the reefing gear drum unit to the deck fitting with the toggle provided. It is a good idea to leave the reefing line in a coil until paragraph 29.

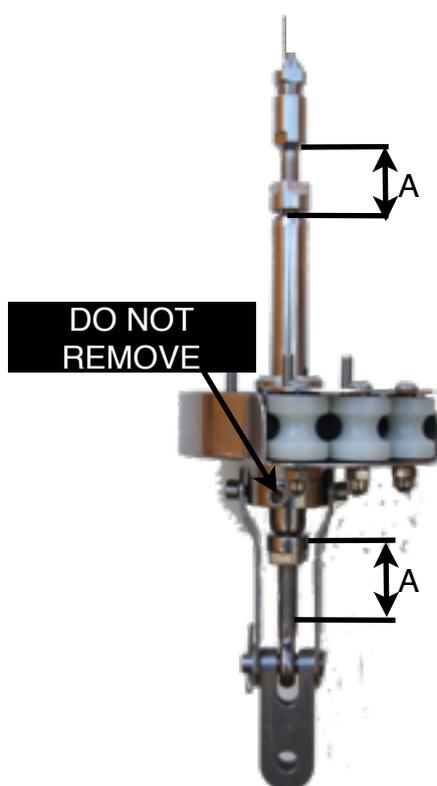
Remove link plates screws but **DO NOT REMOVE LOCK SCREW** see picture below.



7- Ensure that the large plastic washer is

seated on the top of the drum unit.

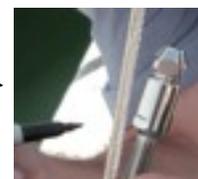
8- If fitting with mast up, bottlescrew and stud should be adjusted as shown in adjacent picture. Distance 'A' should be 40mm MAX on the 4 & 5 f/stay, 35mm MAX on the 6mm f/stay and 45mm MAX on the 7 & 8mm f/stay. Tape studs and lock nuts to maintain the distance until paragraph 23. If assembling the reefing



Tools needed - Drill, screwdriver, hacksaw, pair of adjustable spanners, rivet gun for halyard lead, tape measure, tape, light line approx forestay length, pencil

gear flat then reduce distance 'A' by 10mm each side. DISTANCE 'A' SHOULD NEVER BE GREATER THAN MAXIMUM MEASUREMENT

9) Pull stay tight by hand and hold along side terminal. Mark and cut wire as shown in terminal fitting instructions



10) Do not fit terminal yet

11) The distance for point 'B' above the cut end of the wire is 100mm on the 4 & 5mm f/stay, 100mm on the 6mm f/stay and 130 on the 7 & 8 f/stay.

12) Take the extrusion with the 'sail entry' (this is the foil in which the luff groove has been machined away). Put this foil on one side as this is the bottom foil. Fit the top bush to the top foil (the top foil is the one with no joiner fitted) by drilling a 3.8mm hole with drill bit provided. Slide on the stainless steel halyard swivel (Fig 5) with swivel part upper most. Attach a halyard to the swivel lug and a light line to the sail lug of the halyard swivel (this is to let you pull the swivel down later). Pull swivel up until it hits the top bush, feed the forestay in through the top bush, down through the foil and use the halyard to pull up the foil while holding on to the stay. Push another foil onto the stay and join to first with joiner and screw (do not yet apply torque seal). Continue fitting foils except the sail entry foil until the top bush hits the bottom of the forestay terminal. Do not fit the sail entry foil yet.

14) Ensure that the extrusions are right to the top. Hold the bottom of the sail entry foil so that it is level with the earlier marked point 'B'. Mark the extrusion at the point of extrusion overlap. (see fig 2)

15) The top foil now needs to be cut to length. Lower the foils and disassemble all the extrusions from the forestay



16) Remove the top nylon bush from the top of the top foil. Transfer distance 'X' to the top of the top extrusion (see fig 2)

17) Shorten the top foil by distance 'X'.

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Cut with hacksaw, clean with small file and disregard offcut.

18) Slide on the top nylon bush to the cut end and drill 3.8mm holes with drill bit provided and fit with 2 screws.

19) Slide on the halyard swivel as before still keeping the halyard and the light line attached. Repeat process as before hauling up the halyard and fitting the foils but this time fit the nylon bushes on the forestay above each joiner and above bottom bush. Torque seal the screws on this the final assembly (the torque seal will stop the screws vibrating out and will stop them corroding in so use liberally) This time the sail entry foil can be fitted with the machined entry to the bottom. With the foils pushed right to the top mark 'B' should be virtually level with the bottom of the sail entry foil.

20) Slide the bottom bush on to the forestay. Push it inside the bottom of the sail entry foil until its holes line up with the predrilled holes in the bottom of the sail entry foil. Locate in place with assembly grub screw (See fig 3) Screw in so that it is just below flush.

21) Slide on stainless steel torque tube (tall thin top hat like fabrication) to the sail entry foil, slide right on and keep out of the way until later. Remove terminal from the top of the bottlescrew. Unwind the stud from the bottlescrew. Fit the terminal as per instructions on the packet .Make sure lock nut is fitted.Refit both upper and lower studs to the bottlescrew. Tension bottlescrew until the threads are done up to the tape on the studs.

22) Remove tensioning halyard and tighten backstay bottlescrew to the original position.

23) Remove tape from bottlescrew and tension forestay as required. (Remember that more forestay tension will be required than with a hanked sail but less halyard tension will be needed). Make sure to tighten the lock nuts on both ends of bottlescrew.

24) Refit the link plates with torque seal.

25) Slide down the torque tube to line up with holes in the bottom of the foil. Unwind assembly grub screw so that it loosely locates with the torque tube. Fit other screws around the top of the torque tube, remove grub screw and fit last screw, making sure to use torque seal on all screws.



26) Release halyard holding up the halyard swivel and pull down with the lightline. Make sure that halyard swivel does not free fall.

27) Locate flange holes on bottom of torque tube to studs sticking up from top of drive unit. Fit spring washers and domed nuts with torque seal

28) Ensure that all split pins on the reefing gear and the backstay(s) have been fitted.

29) Uncoil control rope and fit stanchion blocks as needed (See fig 4). Rope can be fitted to either side of the boat, leading through the supplied double blocks that in turn clamp to the stanchion

30) Adjust control rope lead by loosening screw under drum see fig 6. **DO NOT LOOSEN LOCK SCREW.** The control rope should always lead fairly to the first set of stanchion blocks.

31) Fix a deck cleat in a suitable position for the control rope. Only one side of the rope loop is 'live' but both sides of the rope may be cleated. A single block on shock-cord may be fitted to keep the rope loop tensioned.

32) A halyard diverter is supplied and needs to be fitted in order to prevent halyard wrap. Fit as per figure 1.

Special note: It is most important when sailing that the halyard swivel is almost right at the top of the foils. If the sail luff is too short for this to happen then a strop will need to be fitted between the top of the sail and the bottom of the swivel. It is most important that halyard wrap is prevented as with halyard wrap the foil can become totally locked

CHECKLIST make sure you have:-

- 1) Used torque seal on all joiner screws, torque tube screws, lock plate screws, lock screws and domed nuts
- 2) Tightened both lock nuts on bottlescrew studs
- 3) Fitted the forestay wire terminal using torque seal
- 4) Fitted all split pins to any stays that have had pins removed



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