

Schaefer 2100 roller furler drum replacement on Catalina 320

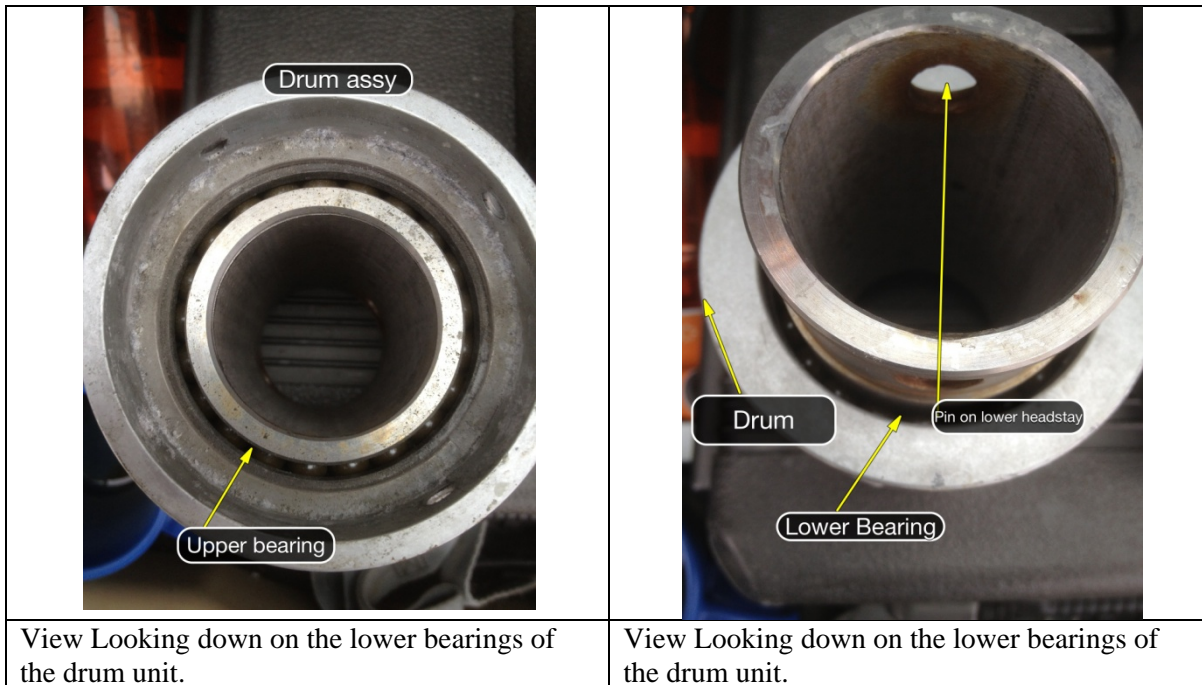
Danny Jensen, A BOA VIDA hull #972, Thanks to contributions Chris Burti, Jeff Hare and C320 group for comments
Photos were taken and edited with iphone app My Measures.

Symptom:

The basic symptom is your sail will not roll in or out without force. The drum unit is hard to turn. Your sail will not roll out on it's own.

Causes:

The cause of this problem is years of salt and sand encrusting in the upper and lower bearings. Some owners feel that the bearings are ruined when encrusted bearings are forced by the use of a winch. Schaefer has attempted to prevent this problem by a minor redesign of the drum assembly to create a wash hole. My furling hull #972 drum did not have a wash hold. Some owners also sail the older bearings had tighter tolerances so these bearings were more apt to clog with junk.



Solution:

Schaefer recognized this issue and they offer to replace the drum bearing assembly for \$150.00.



Replacement Instructions:

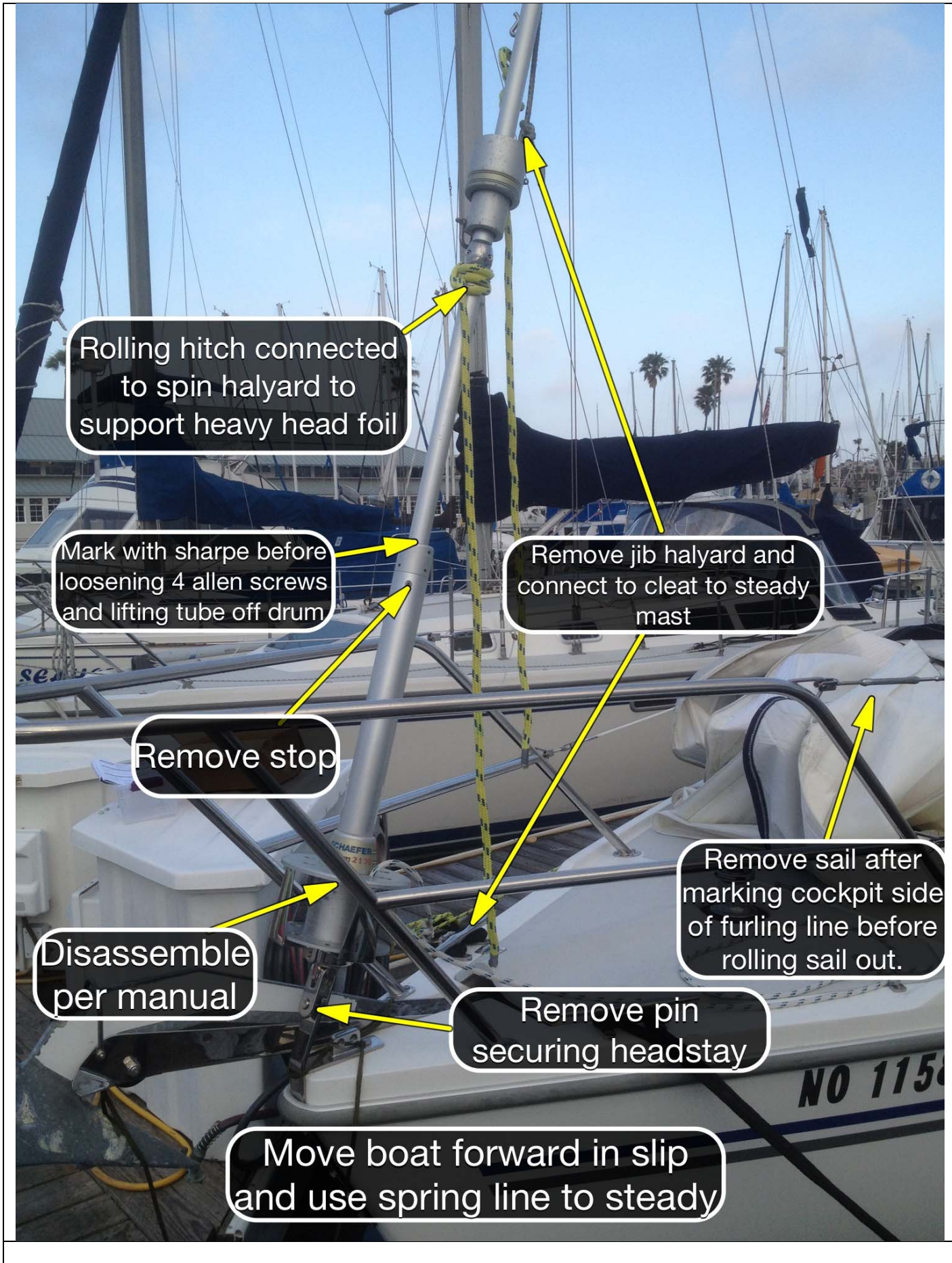
What you need before you start:

1. Call Schaefer 508 995-9511 and request a replacement 2100 furler drum bearing assembly part # 33-049-A. They will also provide you with qty 4 part number 22-313 drum screws and Installation instructions (<http://www.furling.com/JibFurlingInstallationInstructions.pdf>) . Have your credit card ready. Allow 5 working days for delivery. Here is another drawing of the system <http://www.furling.com/overview.html>
2. Channel lock pliers – use the tail of pliers on turnbuckle
3. Adjustable wrench – for head stay
4. Large slotted screw driver – for turnbuckle
5. Phillips screwdriver
6. Knife – to cut and reverse furling line
7. Allen wrenches / Allen screwdriver is best
8. Needle nose pliers
9. Sharpe marker – mark turnbuckle,
10. Hammer
11. Vise grips
12. Winch grease / wd40
13. Anti seize – Use on all screw holes use wench grease if you don't have this
14. Rags / Small Containers / Boxes for small parts
15. A few 5 ft segments of line and a shackle
16. About 3 hrs of time when wind is not howling just in case things go wrong
17. Good spray nozzle – Use for bearings that attach to the halyard clean them while your sail is down.
18. Optional – Spare cotter pins

Everything below has been covered in the Catalina 320 news group or is contained in the manual. Here my recollection of the procedure I followed. Make sure you look at the manual. My instructions that follow are not as detailed as the manual after reading owner comments and the manual.

1. Pull your boat up to the forward edge of your slip using a spring line. It is best if the bow overhangs the dock.
2. Mark the top part of the torque tube above the clamp where screws lock the tube against the head foil.
3. Take a picture of your furling unit with the furling line run through it. This way you can duplicate the lead and the gage housing position.
4. Before unfurling the sail, mark the cockpit end of the rolling furling line.
5. Unfurl the sail and take a picture of the unfurled drum
6. Lower and remove the sail and tie with sail ties
7. With a short line, rig a rolling hitch around the head foil just below the feeder and tie to the spinnaker halyard and tension with the winch. Your hitch should be just below the feeder.
8. Run the jib halyard through the forward cleat and tie it around itself then tension the halyard with the wench after loosening the backstay. This will be your new head stay.
9. Remove stainless cage / guide by loosening 2 screws at base
10. Remove top and bottom plates. Clean them and apply light grease to inside edge.
11. Loosen 4 bolts securing the head foil tube.
12. Remove allen stop pin. Your head stay may be resting on this. This pin should be flush with surface of the tube and you will replace it flush. Don't over tighten on reassembly!
13. Remove 4 fasteners in inside drum. This bolts are replaced with new bolts in the kit has replacement bolts.
14. Lift the tube off the drum about 18 inches and tighten screws holding tube in place

15. Remove the pin securing the drum assembly to the fore stay. Look at the exact profile of the cotter pins. If these cotter pins extend too far, your cage guide will not rotate correctly on reassembly
16. Lube and clean turnbuckle. Loosen turnbuckle with adjustable wrench on head stay and large screwdriver.
17. Use small line with small shackle. Attach shackle to head stay and tie line off to anchor support sprit. This will help you re-attach the head stay later and it will prevent the head stay from going mid ship.
18. Release head stay pin freeing head stay.
19. Remove old assembly and put new assembly on head stay
20. Use the line with shackle you rigged on the head stay to pull down and while you insert the head stay pin. You can do this by yourself but it is a bit difficult.
21. Reassemble in reverse order. Swap ends of furling line
22. Flush top bearing connected to halyard with high-pressure hose.



Rolling hitch connected to spin halyard to support heavy head foil

Mark with sharpe before loosening 4 allen screws and lifting tube off drum

Remove jib halyard and connect to cleat to steady mast

Remove stop

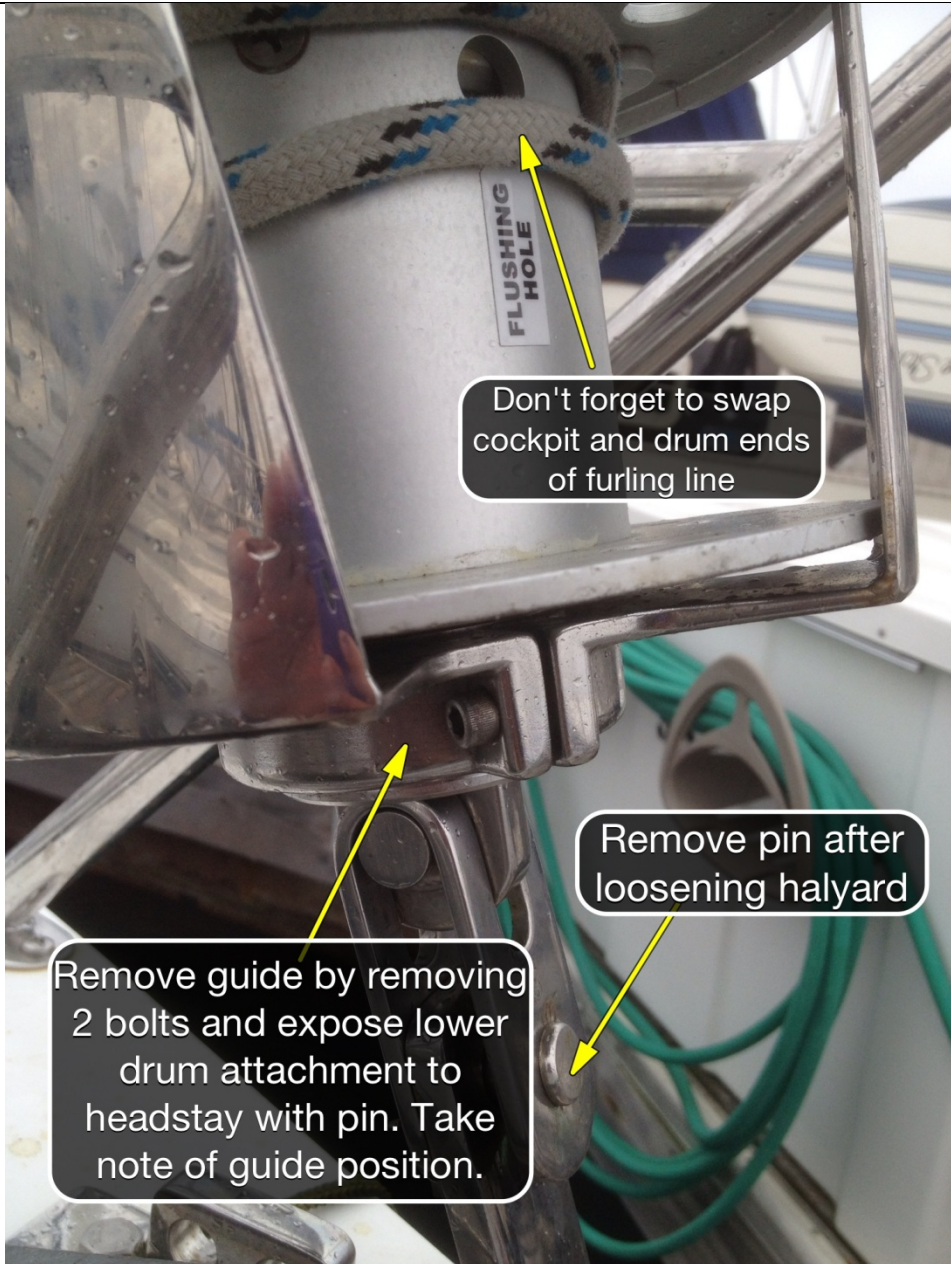
Remove sail after marking cockpit side of furling line before rolling sail out.

Disassemble per manual

Remove pin securing headstay

Move boat forward in slip and use spring line to steady

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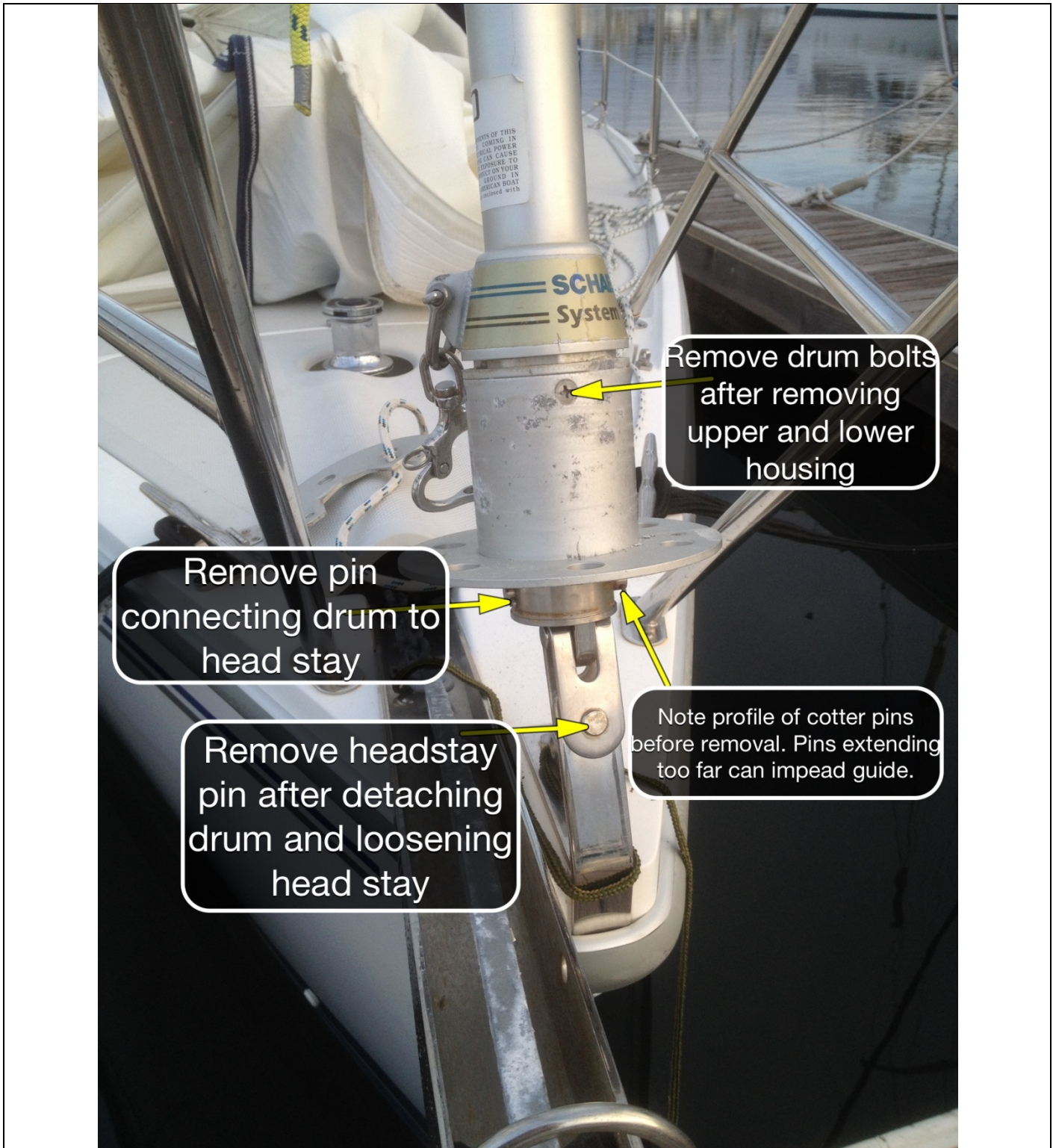


FLUSHING HOLE

Don't forget to swap cockpit and drum ends of furling line

Remove pin after loosening halyard

Remove guide by removing 2 bolts and expose lower drum attachment to headstay with pin. Take note of guide position.

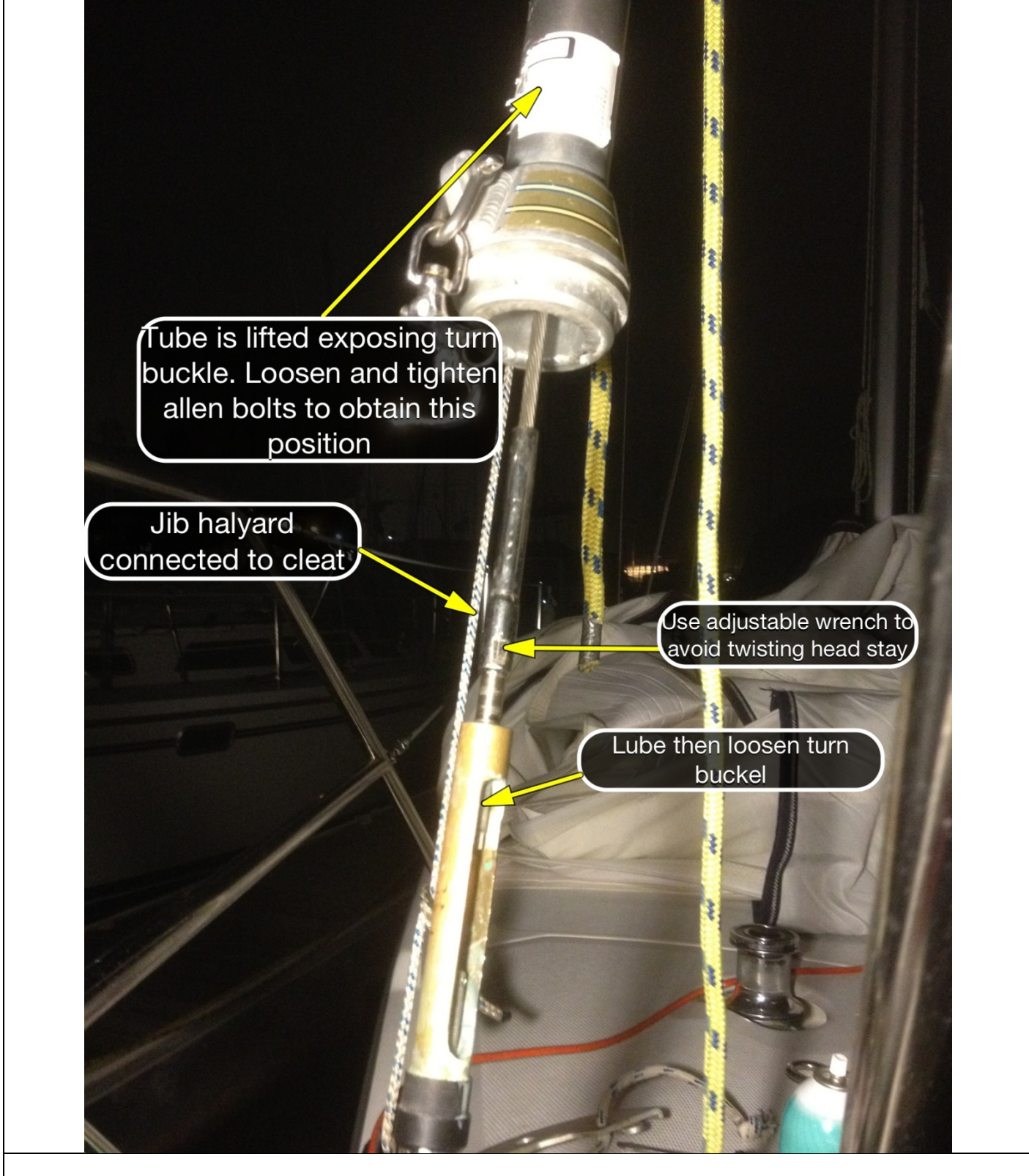


Remove drum bolts after removing upper and lower housing

Remove pin connecting drum to head stay

Remove headstay pin after detaching drum and loosening head stay

Note profile of cotter pins before removal. Pins extending too far can impede guide.



Tube is lifted exposing turn buckle. Loosen and tighten allen bolts to obtain this position

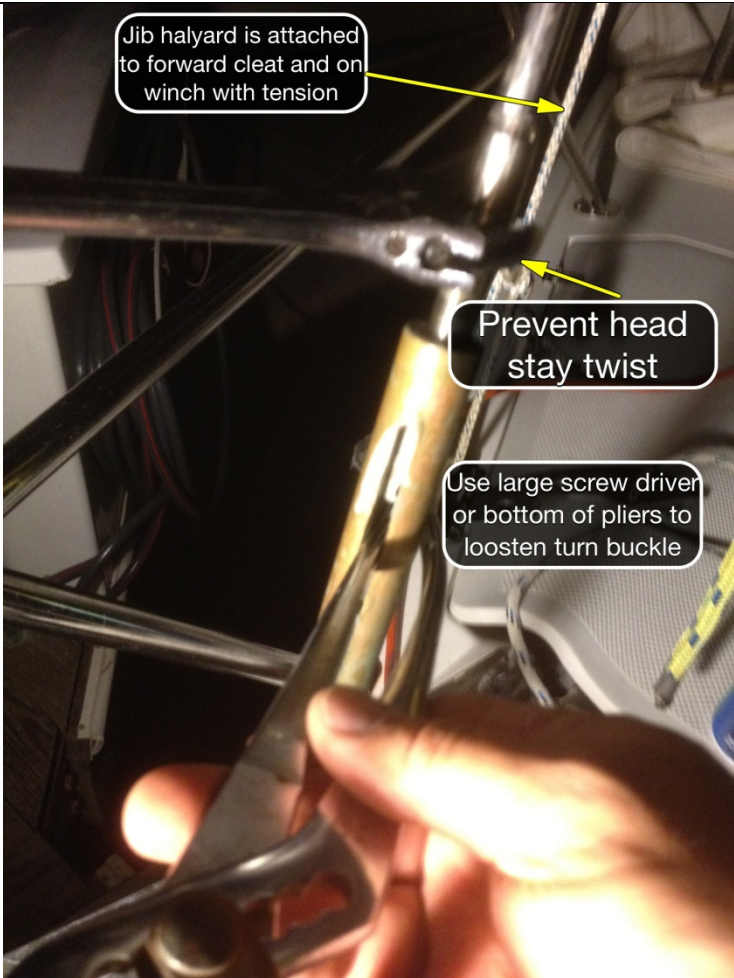
Jib halyard connected to cleat

Use adjustable wrench to avoid twisting head stay

Lube then loosen turn buckle



Mark top and bottom



Jib halyard is attached to forward cleat and on winch with tension

Prevent head stay twist

Use large screw driver or bottom of pliers to loosen turn buckle