

Sailtec Backstay Adjuster Oil Drain and Fill Procedure

This article taken from [Ashley Perrin's Racing Yacht Management website](#) article dated 2 October 2008.



A few of my boats have these adjusters and mostly they work great. The owners of Sailtec are really nice helpful people. I was told that once they stop holding pressure it is better just to chuck them out by one of my vendors and it probably is if you are paying for a rebuild however, if you do the work yourself it will save quite a bit of money. Below are some tips I got for the J105 pumps.

The full 9.5" of throw should require no more than 55 or 60 strokes. If it takes more than that, there is air in the system.

If there is air in the system, it can be fixed by opening the valve all the way and, with the valve open, vigorously pumping the handle 20 – 30 times. This agitation will cause any bubbles in the oil to rise to the top, where they need to be.

They typically fill the cylinder so that it loses pressure within 3/8" or so from max throw, in order that the system isn't damaged from over pumping. If there is a significant variation, they can adjust it with more oil.

If the seals are leaking or you need to add oil:

Materials needed:

TUBE: TWO length of 3/8" clear PVC tube/hose (clear so you can see what is coming out).

About 3-feet each is about right.

OIL: Must be correct kind of oil- NOT automobile steering or brake fluid. Look for something called "Jack oil". It is the stuff used in hand powered hydraulic pumps and car-jacks. It should be GOLD/Amber in color, NOT red, green, or black. Need "32" weight or less. Should have anti-foaming, and anti-corrosion.

2 ~quart-side plastic cups: 1 to pump old oil into, and 1 to "suck" new oil from.

1. Open the valve and extend the piston all the way (fully extended)
2. Turn upside down (piston pointing down)
3. Close release valve.
4. Put the unit in a bench vice (or equivalent) to hold it firmly upside down.

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5. Pump a few times to “starve the pump”
6. Back off the nuts on the compression fittings, BOTH top and bottom, and remove the stainless steel return pipe/tube. It will be a tight fit, so you may need to “spring it” in to compress it slightly (be careful not to bend or buckle the tube!!).
7. Take one clear plastic tube to the stainless steel elbow by the pump (since the whole thing is upside-down, should be the top fitting). The tube may be tight, so push or otherwise screw it on. Lead this to an empty cup/bucket. Old oil will come out here.
8. Take the other tube and put it on the stainless steel elbow fitting that is now on the bottom, the one by the piston rod. Lead it to the bottom of a cup filled with fresh oil. Fill the tube with oil before you get it fully screwed on. Do everything you can to eliminate air bubble in the “fill” hose before the next step.

In my case, the oil came in a bottle with a conical shaped nipple, and it was easiest to just put the hose on the top of the bottle, and turn it upside down. Whatever your method, the goal is to fill with oil and no air bubbles.

Important step

9. AS SLOWLY AS YOU CAN...push the piston rod back into the unit. Don't pump, just push the rod back into the body. Old oil will come out the top, “discharge” tube, and good oil will get sucked into the unit via the “fill” hose. Do this slowly so you don't get air bubbles sucked in with the good oil.

If black oil comes out, this is very bad news. I guess it means that the internal seals are shot.

10. After the piston rod is fully inside the unit, put the stainless steel return pipe/tube back into position and tighten the compression nuts. There is no need to try to fill the pipe with oil prior to re-installing.
11. Take the unit out of the vice and turn it right-side up (normal position).
12. Open the release valve.
13. With your hands, manually extend the piston rod to full extension.
14. Close the release valve
15. Pump the unit all the way closed.
16. When the unit stops pumping, and the handle feels like it “snaps back”, hang the unit vertically upright (normal position) over a pan to catch excess oil.
17. Crack open the bottom return pipe/line compression nut and leak off a little oil. You may need to spring the return line slightly to open the seal at the bottom.
18. Then pump the piston back down and let the overflow leak off.
19. Close the bottom return pipe/line compression nut.

As an aside, if oil is leaking out of the pump at the bottom, they can sell you a \$10 new pump seal. Easy to install, but do need a hammer at some point to drive out a roll-pin.