

Rebedding the chainplates on a Beneteau 343

January 13, 2016

Here are the steps I took for this project:

1. Secured boom topping lift, spinnaker pole topping lift, and spinnaker halyard to toe rail on the same side as the first chainplates to be rebedded.
2. Mark where shroud studs are positioned in turnbuckles so that you can more easily return the rig to previous tension settings. I used blue painter's tape.
3. Remove all tape and cotter pins on the shroud turnbuckle and loosen shroud turnbuckles on opposite side (3 turns on inner shroud and 5 turns of outermost shroud).
4. Tighten topping lifts and spinnaker halyard with cabin top winches.
5. Removed shroud turnbuckles. Cross fingers a strong wind or a big wave doesn't arrive during project.
6. Cut out the silicone (mine was black) in the center of the chainplate cover. This is the silicon that covers the top of the chainplate tie rod.
7. In the cabin, loosen the large nut on the chainplate tie rod where it meets the chainplate tie-rod turnbuckle behind the settee back. Also removed the cotter pin at the end of chainplate tie rod inside the turnbuckle.
8. Make a visual check on how far the tie rod is secured within the turnbuckle. I used blue tape and took a picture via phone. Also check/record rotational position of tie rod in terms of the squared off section (where force from a wrench is applied to turn the tie rod). The point is to know where to return the tie rod so it is in the exact same position. You don't want to tighten tie rod too far since you might pull the deck down and damage it. My tie rod had letter/numbers engraved on the side that faces outward so this was easy.
9. Loosen the chainplate tie rod by turning counter clockwise (top down orientation). This might take quite a bit of force. Remove the tie rod from the turnbuckle and then remove the large nut so the tie rod can be pushed up and through the access cover and the chainplate cover.
10. Remove the clevis pin that holds the tie rod turnbuckle to the hull. Clean and inspect these two parts and then reinstall.
11. Remove the two bolts underneath deck that secure chainplate cover to the deck.
12. Remove the chainplate cover, removing the lower shroud studs.
13. Clean all the crap off of the tie rod, shroud studs, chainplate cover, and nuts/bolts. Inspect everything for corrosion; I have issues on one of the studs where water had penetrated. Also clean off the deck area and the 3 holes in the deck underneath where the chainplate covers go.
14. Then rebed the chainplate cover with the lower shroud studs installed. I used butyl. Reinstall two bolts that secure chainplate cover. Try to get the cotter pin holes in the upper shroud studs to align with the lower shroud studs. You don't want to apply too much twist to the shrouds later to get the cotter pin holes to align on the inside of the turnbuckles.
15. Drop in the tie rod through the chainplate cover and deck to reattach the tie rod to the tie rod turnbuckle. Don't forget to reinstall the large nut on the tie rod leaving room to seat the tie rod into the tie rod turnbuckle at the proper depth.
16. Reattached shrouds via shroud turnbuckles. Don't forget the thread sealant. Leave them a bit loose if you are going to do the other side next and move halyard and topping lifts to other side.
17. Fill the center hole in the chainplate cover (over the top of the tie rod) with silicone. I used clear because it was what I had. I would have preferred black.
18. Replace shroud turnbuckle cotter pins and tape.

Since I used butyl to rebed the chainplate covers, I tightened the two bolts over the course of 3 days. The first tie rod I dealt with got reinstalled fully but on the second I left it a half turn loose for one day before completing the reinstall. The butyl is squeezed out over time so repeated snugging up is needed.

Below are some pictures.

I need to keep an eye on this lower portside shroud stud. Water seems to have gotten trapped inside the chainplate cover and caused a bit of corrosion. My plan is to take the rig apart again in 18 months.



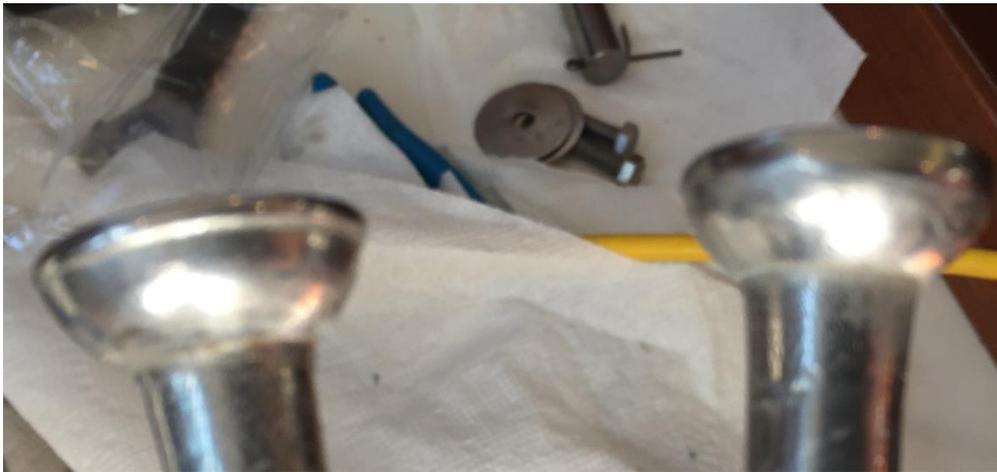
The port tie rod turnbuckle and clevis pin were clearly affected by the water that got in via leakage.



Here is what the starboard side chainplate cover looked like upon removal. There wasn't any meaningful silicone between the deck and the cover. No wonder I had leakage but thankfully no corrosion.



The starboard lower shroud studs are in good shape:



The tie-rods were in good shape:



Everything is clean and ready to go back together:



I butyl'd up everything. Not sure in the future I will butyl the studs. I smoothed out the butyl underneath the chainplate cover and removed some butyl from the bolts after this picture was taken.



After reinstallation and during the tightening process. Notice the butyl squeezing out:



And after filling the center hole on top of the chainplate cover with marine grade silicon. It is the only silicon used in this job. I didn't use butyl since there was no way to secure it. I figure this small amount of silicon won't be too bad to remove the next time I take things apart.

