SCOUT Projects: *Lifeline Replacement*

m/v SCOUT (Great Harbour N37) *Ray Henry*

Description

Washing the boat one day, I noticed that the wire lifelines running through the bow stantions were causing some problems. I really do not know how I had missed seeing this any time prior.

The vinyl coating on the stainless wire had chafed through at the aluminum stantion hole and bare stainless steel was rubbing against aluminum (bad). Add some saltwater, and this is what you get:

After looking at all of the other stantions, I can't for the life of me figure out why someone wouldn't spend the extra ***37.3 seconds*** that would be required to round over the "knife edge" that the raw drilled hole provided --- to perfectly slice through the lifeline covers. So instead, I have this to deal with……Sheesh!

Two of the holes were nearly this bad, and one other just beginning – luckily the others hadn't started yet.

Parts Ordered

1. Snap Grommet

uxcell Hold Plugs,20pcs 13mm Mounted Dia Snap in Cable Hose Bushing Grommet Protector Black

Visit the uxcell Store

★★★★★ 1 rating

Price: $6.79 ($0.52 / Item) ✓prime & FREE Returns

- Inner Dia: 10mm / 0.39" ; Height: 10.4mm / 0.41" ; Mounting Dia: 13mm / 0.51" ; Outer Dia: 15mm / 0.59"
- Package Content: 20 Pcsx Cable Snap Bushing

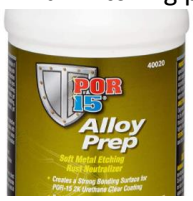
2. Replacement Lifelines (www.riggingonly.com)

www.riggingonly.com **RIGGING ONLY** www.riggingonly.com

Order by Phone: 508-992-0434 7:30 to 4:30 M-F EST
Order by Fax: 508-992-0488 (24 hrs)
Order by E-Mail: sail@riggingonly.com
Web Site: http://WWW.riggingonly.com

See custom-order drawing below

3. Aluminum Etching primer



POR-15 40020 Alloy Prep - 20 fl. oz.

Brand: POR-15

★★★★½ 18 ratings

Price: $18.11 ✓prime & FREE Returns

4. Epoxy, high-density filler, etc.

Design

I wanted a way to eliminate any chance of future chafing. I thought about rubber grommets, but I was pretty sure the UV exposure would destroy them in a matter of weeks. I decided instead to try some hard plastic “snap-in” grommets. They would require drilling a larger hole in the stantions, but the slightly larger size didn’t appear to me that it would reduce the strength of the stantion due to the rigid rail connections above and the deck plate below.

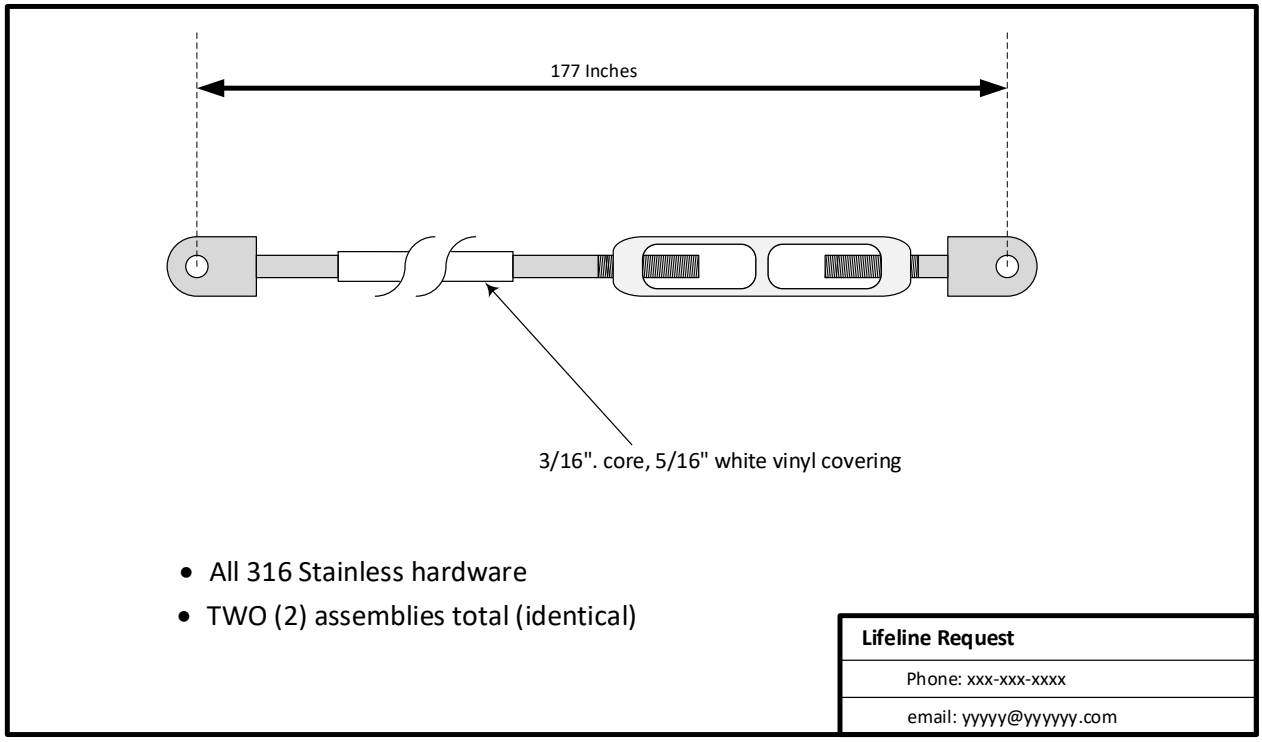
The relatively huge hole in the corroded stantions didn't require much overdrilling for the grommets, but I needed a way to fill the oval gap. I thought about getting a welder to close them up and re-drill, but dreaded the thought of scheduling, explaining, polishing, etc.

Since the repair didn't appear to be structural, I decided to just overfill with thickened epoxy when the grommet(s) were inserted. I did order some 'silvery' epoxy tint to try to help it blend with the aluminum and also protect from UV. It turns out the color of the white high-density filler overpowered nearly all the 'silvery' stuff, though. We'll just keep an eye on them to see over time what the UV does to it.

I redrilled all of the stantion holes, cleaned them up, and treated the exposed areas with metal etching primer to get better adhesion and protection from the epoxy. Once cleaned and dry, I taped off the hole area, laid in some epoxy, and inserted the grommets.

To make things easier, I removed the blue tape after the epoxy was only partially dry. The filled epoxy section didn't come out nearly as pretty as I had hoped, but it will have to do for now as it is only a cosmetic imperfection.

I received exceptionally good service from the rigger to whom I sent a drawing to for the replacement lifelines. The numbers I included in the drawing below are for *OUR BOAT* – measure carefully if you use this drawing and ensure your boat is not different. For our boat, I use the mid-thread position on the turnbuckle so that it could be made somewhat longer or shorter when received. It turns out there was about a 1/2" difference between the port and starboard sides.



The lifelines looked good when received – it was nice to have 316 stainless turnbuckles instead of the zinc-plated ones that had been turning an ugly shade of green.

While looking at the holes in the stantions, I thought that this was a good place for water to get in and run down inside the stantion. I looked at the four bases of the drilled stantions and none of them had any weep holes in them of any kind. For these four, I drilled a 1/8” hole at the base to allow accumulated water to exit. Sure enough, when the drill bit came through, about 1/2 to 3/4 of a cup of water and “schmutz” came flowing out (white-ish stuff at the bottom in the picture) from each of the bases.

Completion

The opening in the grommets was exactly the right size for the vinyl cover diameter, but when the cables are swaged by the rigger, they 'fatten up' a little (likely to help with later shrinking). This meant that they wouldn't go through the grommets. There is a small inner flange on the hole, however, and a quick touch with the drill without damaging the rest of the sleeve made for a good fit.

Do-Overs and Comments

While we could have done a better aesthetic job with the corroded-out holes, this at least puts a stop to the corrosion and hopefully prevents any future problems.