Pad Eye Anchor Replacement

On aft of Centerboard Trunk

You've seen this on most classic Lido 14s: The pad eye some people use to anchor the hiking strap has been ripped out and new holes drilled to attach it again. This is Lido #5120 and the pad eye on the back of the centerboard trunk was loose and falling out. You can see evidence of a few attempts at reattachment in the photo at right.

These pad eyes were often used as a lifting point for raising the boat with a hoist, and as a result get ripped out. I'm sure there are other ways to repair this. In this instruction I lay out how I repaired mine.



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What you will need:

• Stainless pad eye. Get a standard size so it can be easily replaced. In this case I kept the one that was on the boat.

• Two #10-24 x 9/32" Stainless Tee-nuts. I use them when building wooden boats, so I have a pack of them. A fastener store should have them. You can order a bag of them from Amazon for \$9.

• 3"x 6" scrap of fiberglass. I used 6 oz cloth.

• Epoxy resin. I have West System. If this is the only task on your boat, you should be able to buy a small tube of self-mixing epoxy at a marine hardware store. Or, just bum some from a friend who builds boats. I have a lot of those...not friends who build boats, but friends who bum fiberglass and epoxy.

Let's begin:

Look closely at the photo. See the prongs on the T-nuts? They come like the one on the right. I bend them down like the one on the left. Leave them poking out just enough to dig into the fiberglass. Make sure you drill the holes in the CB trunk large enough to accommodate the tee nut shanks. As you see in the last photo, the holes on this boat were already too big.



Now we need to get a few things ready before we begin.

First, remove the centerboard cap. Then you need to sand the inside surface where the fiberglass and nuts will be mounted. I sanded with 60 grit and then cleaned it with Acetone. It's a tight place so you will need to get creative with sticks and sandpaper or find a willing 13year-old with small hands.

Next, you will need to prepare something to use as a shim to tighten the Tee-nuts against. It will also act as a spacer to hold the tee-nuts in the correct position while the epoxy is curing. It needs to be thick enough to tighten the screws against. I used some HDPE left over from making a bumper for the front of my centerboard cap on my #4633 (another problem we all have!). Anything will work. It will be discarded after.

The drilled holes need to have the correct spacing. Otherwise, the nuts will be epoxied into the wrong position and won't match the hole pattern on the pad eye.



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Use the pad eye to mark where the holes will need to be for the tee-nuts to poke through the fiberglass. I used two layers of glass so the little spikes on the tee-nuts have something to dig into.

Cover the back of the thread holes with some masking tape. After I installed the tee nuts and the epoxy began to cure, I was able to reach down with a flat blade screwdriver and peel these off. In case this was not successful, I assumed that I would at least be able to break through the tape with a longer screw after the epoxy cured.



Learn from my frustration!

Each time I tried to put the fiberglass on the inside of the centerboard trunk and push the tee-nuts through the holes, one of the tee nuts would fall out through the CB slot onto the floor. I finally gave up and started over. This time, after putting small pieces of tape over the holes in the back of the tee nuts (see previous step), I then put one long piece of tape over both so one will not drop to the floor while I am using a paint stick to poke the other through the holes. Once I got screws into the nuts I peeled off the longer piece of tape. The smaller tape covering the holes stayed on.



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Before trying to put the fiberglass and nuts onto the back of the CB trunk, get the CB trunk coated with epoxy in the area that will be covered by fiberglass.

I used a paint stirring stick to press the fiberglass against the trunk and the two tee-nuts into the holes. While holding the nuts with the stick, screw into them from the front through your shim. They don't have to be tight yet. It just needs to keep the nuts from falling out on the inside. Remove the longer piece of masking tape that was holding the nuts onto the fiberglass.

Use a paint brush to add more epoxy to completely wet out the 'glass and to get under the base of the nuts. Then tighten up those screws! Get the little prongs on the nuts to dig into the fiberglass. Use a flat blade screwdriver to keep the nut from spinning on the inside while tightening on the screws. The screwdriver fits right into the slot in the nut backing where the prongs are sticking out.

Once the nuts are tight, you can reach in with a screwdriver and scrape off the little pieces of blue tape covering the holes in the nuts. After the epoxy cures and you remove the screws, you no longer need the white plastic spacer (or whatever you used).



Almost done....

Here is what it looks like on the inside of the trunk when it is done. You can see that there is some fiberglass that is not completely wet out at the bottom. It is still white when it should have become clear.

It looks sloppy, but since it is not structural there is nothing to worry about.



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Fill in from the outside.

After the epoxy on the inside is cured, it's time to fill in the holes from the outside. I used some old screws to thread into the nuts to keep the threads clean while I fill the spaces around the nuts. The fiberglass on the inside provides a nice backing for filling the extra holes.

I used epoxy thickened with West System 404 High Density Filler. I'm sure any filler/thickener will be fine. The high-density filler will help keep the nuts from torquing from side to side in the holes that are too big. If you drilled your own holes to the correct size, or you don't have multiple holes to patch, you may not need any filler.



All done and ready for paint.

• The screws I used are only ½" long stainless #10-24. There is no need to use any longer screws. They will just stick out of the back of the nuts and scratch up your centerboard. Anything longer than the threads in the nut is useless.

• I will be sanding and painting this boat after doing some other major repairs such as replacing the transom. When painting, I'll put the old used screws back in to protect the threads.

• As long as no one uses this pad eye as a lifting point for a hoist, it should serve a few decades as a hiking strap anchor if you chose.

