

Lido 14 Centerboard Trunk Wood “Cheeks” repair

The centerboard trunk wood on #5120 is not as bad as some of them out there, but it doesn't look good. The only way to know what is going on is to scrape and sand until we get down to the wood. On my #4633 (below) I found beautiful Mahogany under all the paint and Bondo. On this boat it looks like plywood.



1

After scraping off the big chunks of paint and various Bondo-type repairs that had been done over the years I found only a few problems:

1. The port side wood (top of photo) had become separated from the fiberglass trunk. I was able to pull it away by hand easily.
2. Both sides had stripped out screw holes with no wood remaining for a screw to bite into.
3. The starboard side wood was adhered nicely to the trunk, but there was a gaping hole with spider webs inside. While the top had been covered with some Bondo, the inside and bottom had been completely open. The screw holding the CB hanger in place was just sitting there. I pulled it out by hand.

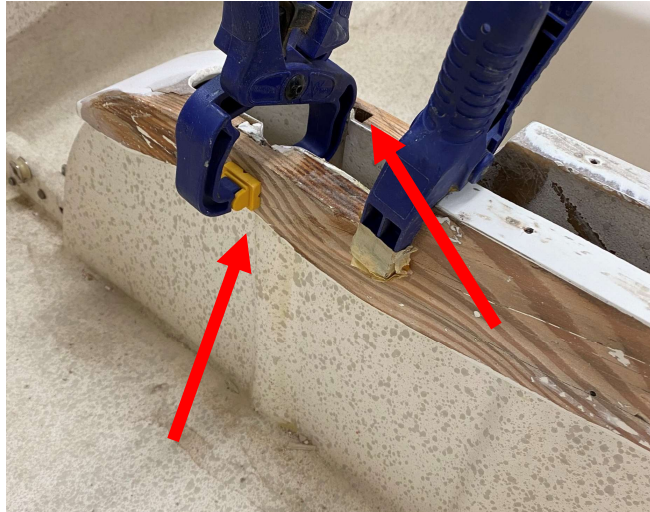
When I was using an orbital sander, the vibration caused all those white chunks of material to bounce around. All that needs to be removed.



2

After picking out all the loose pieces of material I focused on getting the wood epoxied back onto the centerboard trunk. The starboard side was solid but the aft $\frac{3}{4}$ of the portside wood was separated from the centerboard trunk. I was able to reach in and coat it with some epoxy thickened with West System 404 High Density Filler before clamping it on to cure. A chip brush and putty knife helped me to reach up behind the wood.

While I had the epoxy out, I also made a thicker batch of epoxy (like peanut butter) and used it to plug the bottom of the big holes that you see from the top. I just made a fillet along the bottom (red arrow) with my gloved finger. Later we will fill the holes from the top, so we need those holes plugged at the bottom so it doesn't just run out into the boat.



3

Time to fill the holes....

After glueing the wood back onto the centerboard trunk and plugging the holes along the bottom, the next task is to fill the big holes from the top and create a solid substrate to attach the centerboard straps to. I'm not sure what the original material was or what the boat's designer intended when they set up system for attaching the CB hangers. The screws always seem to be barely hanging on. My plan is to create a long-term, mechanically sound, system for installing and removing the centerboard.

I decided to create a mix of epoxy and chopped fiberglass. It makes a thick and goeey paste that will cure into a very strong base to drill into.



4

Take your paste of fiberglass strands and epoxy and pack it in tightly. Really smash it in there so it spreads and fills every void. Since I have already plugged the bottom openings with epoxy, I am able to push down and pack it in.

While I had the epoxy out I made up a regular batch and coated all the exposed wood. Really let the epoxy soak in.



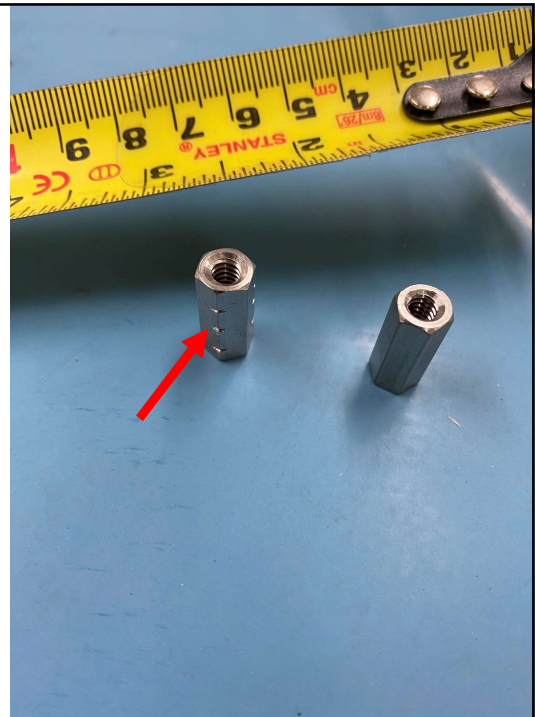
5

Now it's time to create a permanent CB hanger mount.

The fasteners in the photo are 1" long, 10-24 stainless couplers. I found them in the fastener section at Lowe's in a drawer. They are open on both ends. I think I paid about \$3.00 for both.

I am going to epoxy these into the wood and they will provide a place to screw in the CB hangers. Since they are hexagonal, they won't spin in the hole.

Look closely at the one on the left. I used a hacksaw to put notches on the edges. This allows epoxy to squeeze in and will keep them from pulling out of the epoxy. Add these notches to both of them.



6

Now you can see why I wanted to use the fiberglass strand/epoxy blend. In order for this to work well the substrate needs to be strong and contain no voids.

Drill a hole slightly larger than the diameter of the stainless coupler. Make the hole only deep enough to fit the length of the coupler. If it is too deep, you'll have to fill it in a little before installing the coupler.



7

In this photo you can see the intended home of the stainless coupler. I used some old screws to act as a handle and to keep the epoxy out of the threads. Put the screw in until it is flush with the bottom of the coupler. I put some wax on the tip of the screw so the epoxy wouldn't stick to it.

I made the hole deep enough that the coupler sits flush with the top of the wood. In this photo it is not quite flush, so I drilled just a bit more to make it flush.

You will need to measure the distance from the hanger strap to the screw hole on your CB hanger. You need to make sure that when you install your CB the holes on the hanger will match the position of the new coupler nut you installed.



8

Finished for now.

I made a light, syrupy, mix of epoxy with 404 filler and put it into each hole. Then I pushed in the coupler and screw and plunged it up and down and spun it around to make sure there are no air gaps. You want it to squeeze out over the top. If the screws are in flush with the bottom and you have sacrificial screw flush with the bottom, no epoxy should find its way into the threads.

After wiping squeeze-out I let the epoxy cure for a couple of hours. Once it set up enough, I removed the screws without disturbing the placement of the couplers. There are many repairs to be made to this boat, so for now I sanded and primed the wood. This will protect the epoxy from UV until I get to the final sanding, filling, and painting of the interior.

I think $\frac{3}{4}$ " or 1" stainless screws will be perfect to hold the CB hangers in place. No more messing around with stripped out wood screws. Nice, smooth machine screws for now on!

