

Butterfly Rub Rail Replacement – This is not an easy job!

The first question is, why are you doing this? If the rail really is cut/torn, missing a section or pulling off the boat, then replace is the only option. If the rail is merely ugly and dirty, then run to the nearest hardware store to get some xylene and rags to clean it (acetone also works, but it evaporates much faster). And keep changing rags, using a clean one is key.

And if cleaning isn't the answer, this is what you need to know about replacement. First, the easy part, removing the old rub rail. Remove the screws/nuts/bolts in the rail end cap at the back of the boat, and remove the cap. Save all those parts, you'll need them to hold the new rail in place when you start, and to finally finish the job. Taking off the old rail is easy, just grab an end and start pulling – after you have tied the boat off so it doesn't move around. Then clean the lip of the boat, sand if you need to, to remove any residue from the old glue. This is also a good time to check for leaks or splits in the lip, and fill them with 5-minute epoxy, and if there was an obvious split anywhere, use a clamp on the rail to close the split while your epoxy cures.

If there are any rivet ends sticking out (usually on the underside of the lip), use an angle grinder with a cutting wheel to smooth them off. The cleaner and smoother the lip is before you start the real work, the easier it will be to get the new rail on. Note that the rivets are not there to keep the hull and deck together, they were put in before the glue between the two set up, to hold the hull and deck in the proper shape. That means that you can attack any problem rivets without fear that the boat will come apart.

Rails are a two to four-person job to apply - you will need to warm the rail so that it handles and stretches more easily, and have a good hair dryer or better yet, a heat gun available to keep it warm and reheat sections to keep them workable, and a good adhesive. An oven works for warming, just keep the heat really low, and put the rail on a wooden platter so that if you get too hot, you don't have melted rail in the oven. (Cotton gardening gloves are really useful here, just make sure they fit tightly.)

The factory used an epoxy paste to glue the rail to the boat. Epoxy however kicks off (cures) fast and there is no time for readjusting. On repairs/replacements we prefer something like 3M 4200, which has a working life of a few hours to give you plenty of time to get the rail on right. Be aware that there is a very similar product, 3M 5200, which has a working life of a full day. BUT 5200 is an absolutely permanent, forever glue, and it takes a full week to cure to full strength. You should be able to find 4200 or something similar at a nearby hardware store, and West Marine also carries it if you happen to have a West nearby. Any messes, smudges, spills and sticky fingers are easily cleaned up with acetone if you get to it before the 4200 (or 5200) cures. Note that a single 3 oz tube is not enough to go around the entire boat, two are a bare minimum, 3 would be safer.

Glue hints; we prefer to add the 4200 to the inside of the rail as we go around the boat, instead of putting the glue on the lip of the boat, it is much less messy when trying to push the rail over the

lip. Also, we open one tube at a time going around the boat, to stretch the working life of the 4200.

We cut the rails long, roughly 33 ½ feet, so you will end up with anywhere from 3 to 5 feet of leftover rail to cut off, depending upon how hard you stretch it around the boat. This excess gives you something to grip and pull when you get to the end, and also allows you to safely cut off 18” or so and experiment before you try the whole thing. If you can apply the glue to the inside of the rail instead of the lip of the boat, you have at least a better chance of less mess. A very useful tool is a rubber mallet to pound on any lumps as the rail is applied, to get it firmly seated on the lip of the boat. *It does take some effort* to get the rail seated on the lip, pulling, pounding and pushing. **Practice** on an end piece before you apply the adhesive can really pay off, it is not easy to spread the rail open - or to keep it open. When you practice, you should heat the practice section, so you can feel what heat - or the lack of it - does to the pliability of the rail. **Practice!!**

Start at the back of the boat, using one of the machine screws from the rub rail cap to attach one end to the boat by drilling a hole in the rail and attaching to one of the existing cap holes. Then start pushing, pulling, tugging. The warmer the rail (do not get too hot!!) the easier it is to work with. The more you can stretch it, the better the fit will be in the end. When you get to the end, pull it past the joint on the back of the boat and keep tension on it while one of your helpers drills a hole in the rail and attaches the end to the lip. Excess is easily cut with any sharp knife or razor blade. Then go around the boat with the rubber mallet and make sure the whole rail is well-seated all the way around. Hint; if you put too much adhesive in any one place, you will have a lump to try to work out.

And a really important note! The boat needs to be very stable, tied off so it can't move as you pull the rail around the boat. Use the fittings on the boat to tie as many ropes/lines in as many directions as you can, and then push/pull on the boat to be SURE that it is stable before you start the rail work. Yes, you'll be tripping over the lines as you go around the boat, but that is much, much better than pulling the boat off of the stand or trailer that you have set it on to do the work. A trick someone once told us about was to put a short 2x4 over the top of the board box, and loop a ratcheting tie-down strap over it, bringing both ends down through to board box and loop it around the trailer or stand that the boat is on. Ratchet it down as tight as you dare!

Good luck!

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