Baba 30 Butterfly Hatch Repair in 17 or so not-so-easy steps Part I

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Introduction

Butterfly hatches on any boat are notorious for leaks. However, they are also noted for their attractiveness. Those who don't have butterfly hatches, praise them. Those who do have them, curse them...except in fair weather. Personally, I would list butterfly hatches within the top ten things I find most appealing about my Baba, regadless of the drawbacks.

One common method for dealing with leaky hatches is to cover them up with custom made hatch covers. This also preserves any varnish that has been applied to them. While I will be using hatch covers in the future, I prefer to have them off while on the boat whether it's fair weather or not. The view is much more pleasing than it is looking up through scratched and faded plastic (unless the cover does not have a window, then you just get a sky full of sunbrella). I decided to take care of the leakage once and for all. What follows here is a novice's procedure to eradicate leaks from the butterfly hatches (hopefully for good).

Excuses and Other Disclaimers

I certainly don't guarantee any of this is going to work. However, prior to writing this I did complete the starboard side and it has not leaked. I tried as best as possible to take clear and informative pictures. I do have one excuse, however. I tried to take pictures while doing the work. My digital camera decided to erase all the pictures I had taken up to the point where I bedded the glass. After that, I was able to capture the real thing. Also, being a novice I don't claim to be proficient with the tools and chemicals (except beer) used here. In fact, I'm sure I used some of these things (like acetone) haphazardly. So, if you are a real stickler for doing things correctly and safely, I'd suggest you skip this and do it from scratch. For the rest of you, I hope you get something out of this. I will tell you that it was fun, especially after I figured out how easy it was to get the black nasty stuff off of skin.

Okay, let's get messy...

What you'll need

Here's the list of stuff I used. You may have better ways of doing this, but this is what I used (in the order I used it).

1. Utility knife
Used to cut the seal of the moulding

2. Painter's tool
Used for gently prying the moulding. You could use a regular putty knife for this, but the shape of the painter's tool makes it ease to get into a seam.

3. Small scraper
This is the perfect size for cleaning the wood.

4. Razor blades
For cleaning the edges of the glass.

5. Acetone
Use this to wipe down the surfaces to be sealed. It's not so much for cleaning as it is for drying up the oils from the teak.

6. Life Caulk Primer
Put this on before sealing and after wiping down with acetone.

7. Small natural-bristle paint brush
For applying the primer.

8. Rubber gloves
Trust me, you'll want these. They make a good place to put your tools after they get covered in gunk. Or, if you're lucky, you can actually wear them and they might keep your hands clean while making it easier to get Life Caulk on your clothing.

9. Caulking gun
The one shown has a spring that backs off the plunger so the stuff doesn't keep oozing out after you apply it. Seems to work okay.

10. Life Caulk (black)
It doesn't say it's polysulfide, but supposedly that's what Thiokol is. Actually, Thiokol is the same stuff they use to seal the rocket engines on the Shuttle. This is what failed during the Challenger explosion, so don't expect it to last if you intend to have hot rocket fuel coming in contact with your hatches.

(not shown)

Rags
good for evenly distributing life caulk on any clean surfaces you may have missed earlier

A place to put garbage
sounds obvious, but you don't want to go looking for it after you start applying the caulk.

masking tape
Only somewhat useful for keeping Life Caulk from getting all over the place.

Tarp
You'll put this under the hatch when you start scraping off all the old sealant.

Vacuum Cleaner
For cleaning up all the old sealant and sucking up the only razor blade you had.

Putty Knife
To smash down the sealant into cracks as well as an ornamental addition to the bottom of your shoe.

Step 1.

When you first looked at your hatches, you were probably not sure how the heck the glass was held in there. If you look at the quarter-round trim around the glass, you will see a very thin line of sealant. You have to take out the quarter-round to get to the glass. To do this, run a utility knife down the line VERY CAREFULLY!. Don't get too worried if you nick the wood a little. However, you don't want a 2 inch splinter coming off. Repeatedly run the knife down the line of sealant until you are through to the glass.

Tip: with a pencil, number the trim and the frame so you can match them up later. I didn't do this and I wish I had.

Step 2.

With the painter's tool (or putty knife), VERY CAREFULLY wedge it down between the trim and the frame. Work your way down as you gently pry the seal open.

Step 3.

When the trim is far enough away, you should be able to pull it out of the frame. Use the utility knife to cut the seal as you pull by hand.

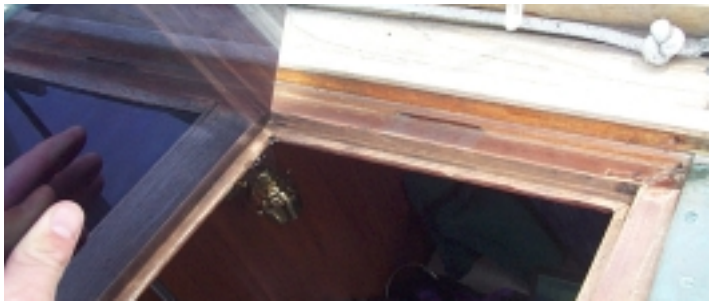
If your hatch has been 'repaired' before, there is probably a bunch of polyurethane on the ends. Use the knife to cut it away.

Step 4.

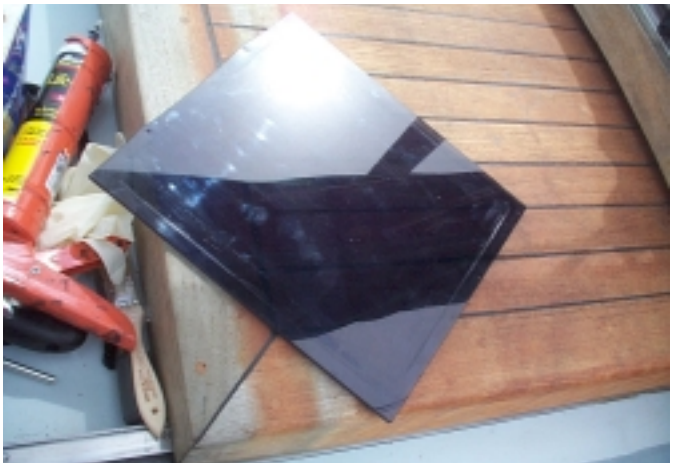
Cut through the old bedding for the glass both on the outside and inside of the hatch.

Step 5.

Once enough of the bedding is cut away, you should be able to easily pry up the glass VERY GENTLY. I can imagine that breaking this glass would be a real bummer as it is tinted.



DON’T PUT THE GLASS HERE!!! Most likely someone will close the hatch while the glass is lying on it.



Step 6.

Remember the mention of the tarp as one of the tools necessary? This is where you would use it...unless you like having chopped up sealant lying on the salon floor. Open the hatch, put the tarp over the opening then close the hatch.

Using the utility knife, cut away the thickest parts of the sealant. Try not to nick the wood. Go ahead, just try not to. I dare you.

Step 7.

To get rid of the rest of the old sealant, use this scraper. It does a really great job of getting down to the wood. Try not to scrape off too much wood, though. Go ahead, just try not to. I dare you.

Step 8.

Do the same with the trim pieces, starting with the utility knife. Try not to nick them too badly or scrape off too much wood. Go ahead, just try not to. I dare you.

Step 9.

Use a razor blade to trim off the sealant from the glass. Get as much off with the razor blade as you can. Then, with a rag and some acetone, clean the glass thoroughly. You'll be amazed at how nice this glass really is.

Step 10.

Clean the frame and trim pieces with acetone. Be sure to clean out any of the extra crumbs and shavings. If you notice there is still quite a bit of sealant (or polyurethane from previous attempts at repair) in the corners, go at it with the utility knife.

Step 11.

Apply a light coat of primer to the frame and trim pieces. Follow the directions on the can. I used 3M Teak Primer on the other hatch. I can't tell, but it seems like the same stuff. It takes about 30 minutes for this stuff to dry, so go have a beer. Or, if you're not a beer drinker, maybe now is the time to start.

Step 12.

Take the masking tape and tape up the frame. Also tape up the trim pieces.

You may notice there is caulk oozing around the glass. That's because I did it in the wrong order. Put the tape on before you put on your rubber gloves and you'll probably save yourself a lot of icky-ness. See, masking tape sticks very well to latex gloves. By the time I got done wrestling with the tape with my gloves on, the gloves were pretty much useless. That's okay though. Getting black junk all over your hands then going out in public garners a certain amount of pride a la Tim Taylor.

Step 13.

This is the fun part! Squirt the sealant in pushing the bead as you squeeze. Don't be shy with this! Remember, you don't want this sucker to leak at all. Make the cut on the end of the tube pretty generous. This will ensure a nice thick bead.

Step 14.

Position the glass. Make sure you put the right side up. I don't know if it matters, but I could definitely tell which side needs to go up. Move the glass around while GENTLY pushing down. Push down around the edges. The latex gloves were handy for added grip.

Step 15.

Once the glass is in, a thick bead should be oozing up over the edges of the glass. In my mind, that's still not enough. Go ahead and squirt more sealant on top of the glass. Put the trim in place and push down until the sealant comes out between the trim and frame. You probably don't want to push down with something valuable like the handle of a $10 screwdrive (pictured). Use something you can discard or easily clean.

(notice absence of latex gloves)

Step 16.

Use a putty knife to fill any gaps between the trim and frame. Enough sealant should be available to do this. If you need to, add sealant. You may notice there is a large gap in the corners. Add sealant to close them up.

(note clean hands)

Latex gloves make a good drop cloth for icky tools.

Step 17.

After peeling away the masking tape, it may look very messy. But take heart! This stuff is pretty easy to clean away from the wood once it cures. You'll only have to wait a week or so for it to cure. That's enough time for you to think of all sorts of things that need fixing.

Meanwhile, even wet the stuff is waterproof. It even seems to cure faster with a little water added to it. If you have covers, you may want to put something over the hatch before putting the covers on.

Believe me, this black stuff gets on everything!

Next...

Part II, finishing.