

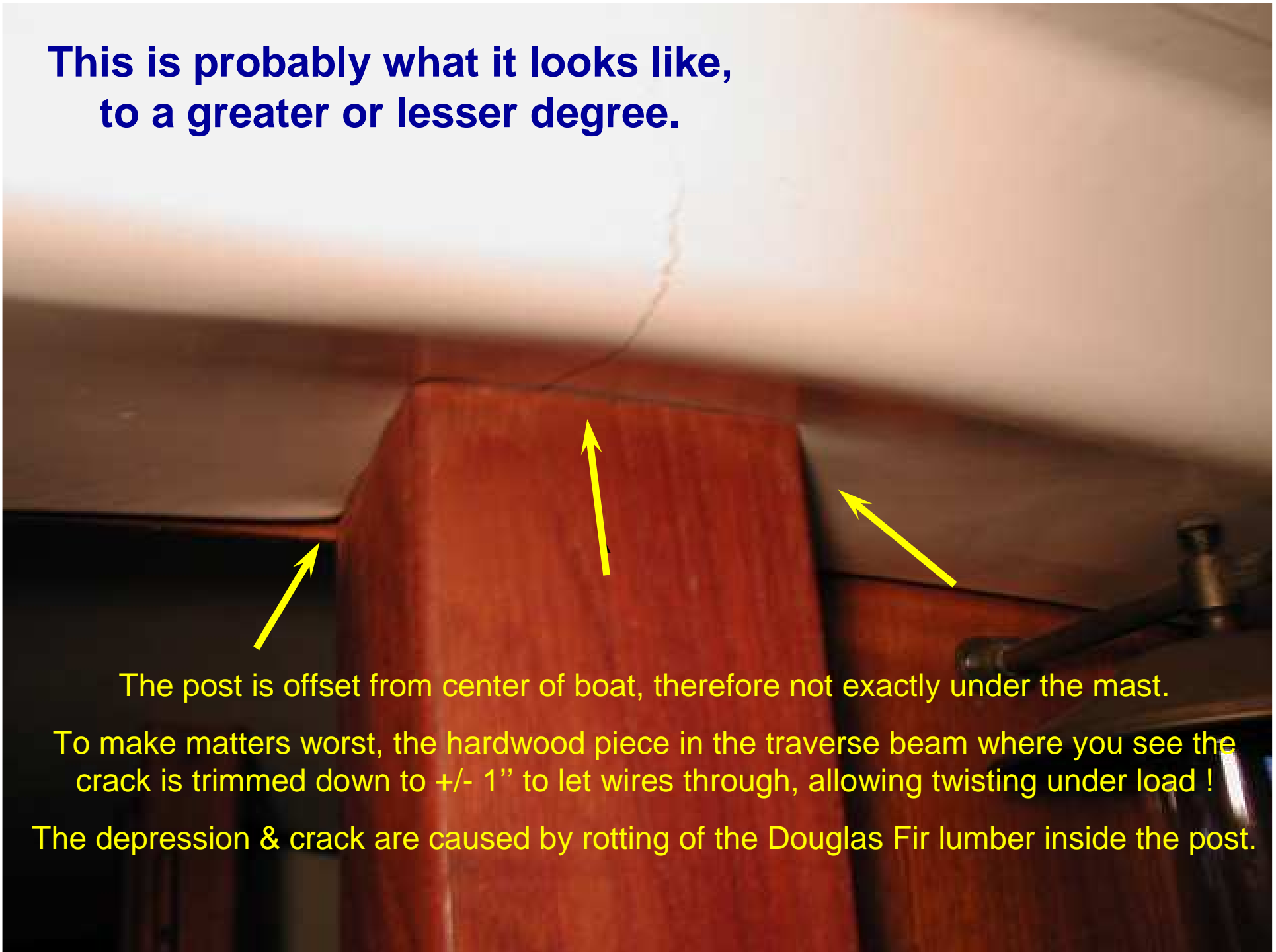


Hunter 34

Compression Post Repair

Claude L. - Auger

**This is probably what it looks like,
to a greater or lesser degree.**



The post is offset from center of boat, therefore not exactly under the mast.

To make matters worst, the hardwood piece in the traverse beam where you see the crack is trimmed down to +/- 1" to let wires through, allowing twisting under load !

The depression & crack are caused by rotting of the Douglas Fir lumber inside the post.

1. Remove settee

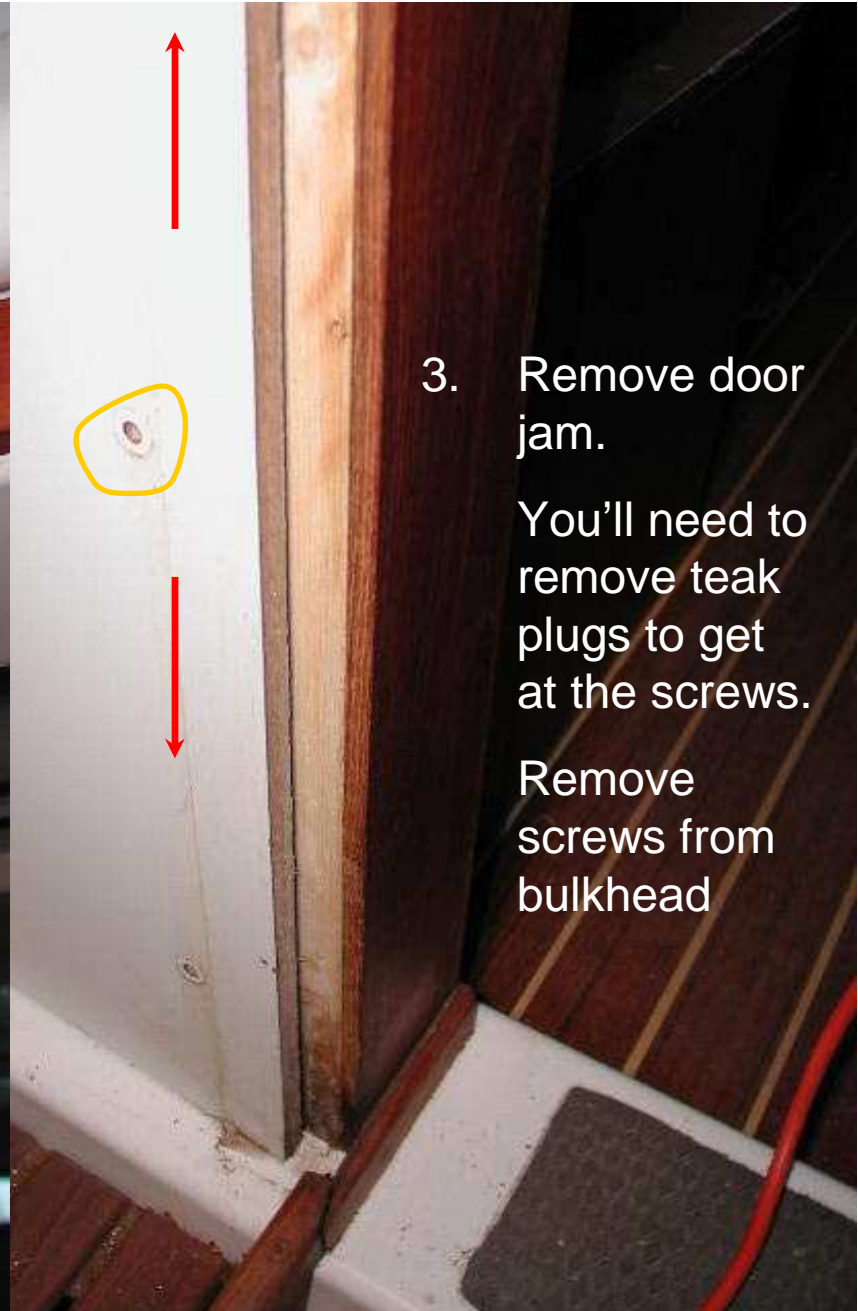
(Removing table is optional but it does open-up your work-space)

Jam

To remove settee:

1. Remove screws from cover.
2. Remove screws from jam behind starboard-side wall.
3. Slide cover off from under the wall and store out of way.
4. Remove screws from floor jams (between holding tank & side & front walls of settee).
5. Pull out L-shaped settee walls and store out of the way.

2. Remove head door from door jam



3. Remove door jam.

You'll need to remove teak plugs to get at the screws.

Remove screws from bulkhead

4. Remove teak trim at bottom of post . Again you need to remove teak plugs to get at the screws.



5. Install small hydraulic jack and carefully lift deck until teak beam can be pulled out. Worst rot should be at the top of Douglas Fir insert.



6. Bring the post home and using a table saw, carefully cut out a 2 & 1/8" square groove in the middle of it.

Replace before grooving if too much rot.

7. Get 2" Stainless Steel square tubing and have it drilled on one face, top, middle, and bottom for holding screws. Have wire chase outlet machined on side in front of cut-out in the post.

Bottom end
Starboard side



8. Get piece of aluminum machined to use as base on which you will insert the square tubing.



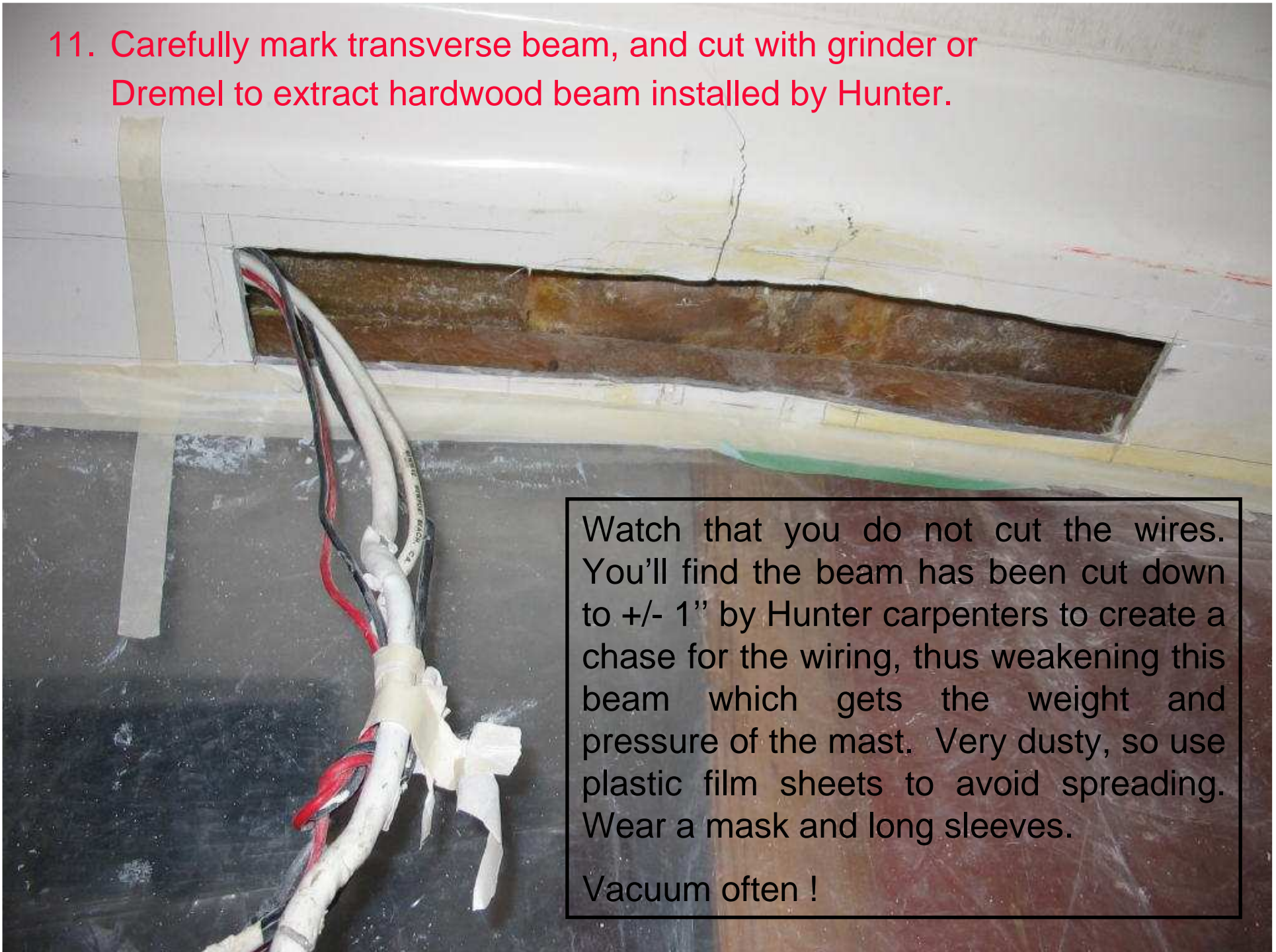
9. Have a 1" wire chase outlet machined on stern face of top part of the square tubing.

Top end
Stern face

A 1½" wide groove needs to be cut in what is left of Douglas Fir, running from top of beam to bottom of wire chase outlet. This is to create room for wires once post is re-installed. Easy to do on table saw.

10. Have a top-piece aluminum block machined with channel cut-out for wires.

11. Carefully mark transverse beam, and cut with grinder or Dremel to extract hardwood beam installed by Hunter.



Watch that you do not cut the wires. You'll find the beam has been cut down to +/- 1" by Hunter carpenters to create a chase for the wiring, thus weakening this beam which gets the weight and pressure of the mast. Very dusty, so use plastic film sheets to avoid spreading. Wear a mask and long sleeves.

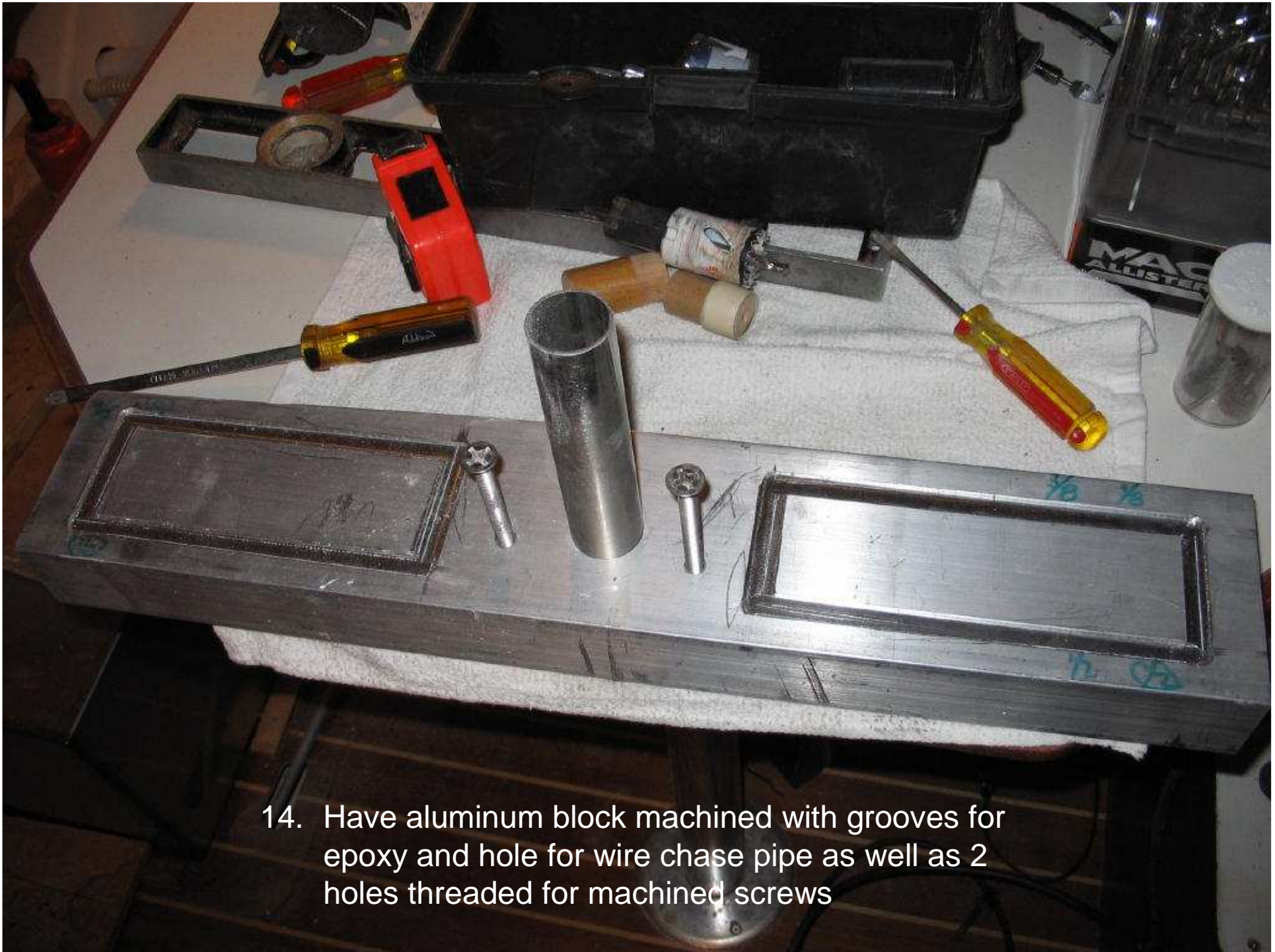
Vacuum often !

12. Tape wires out of the way towards port side.

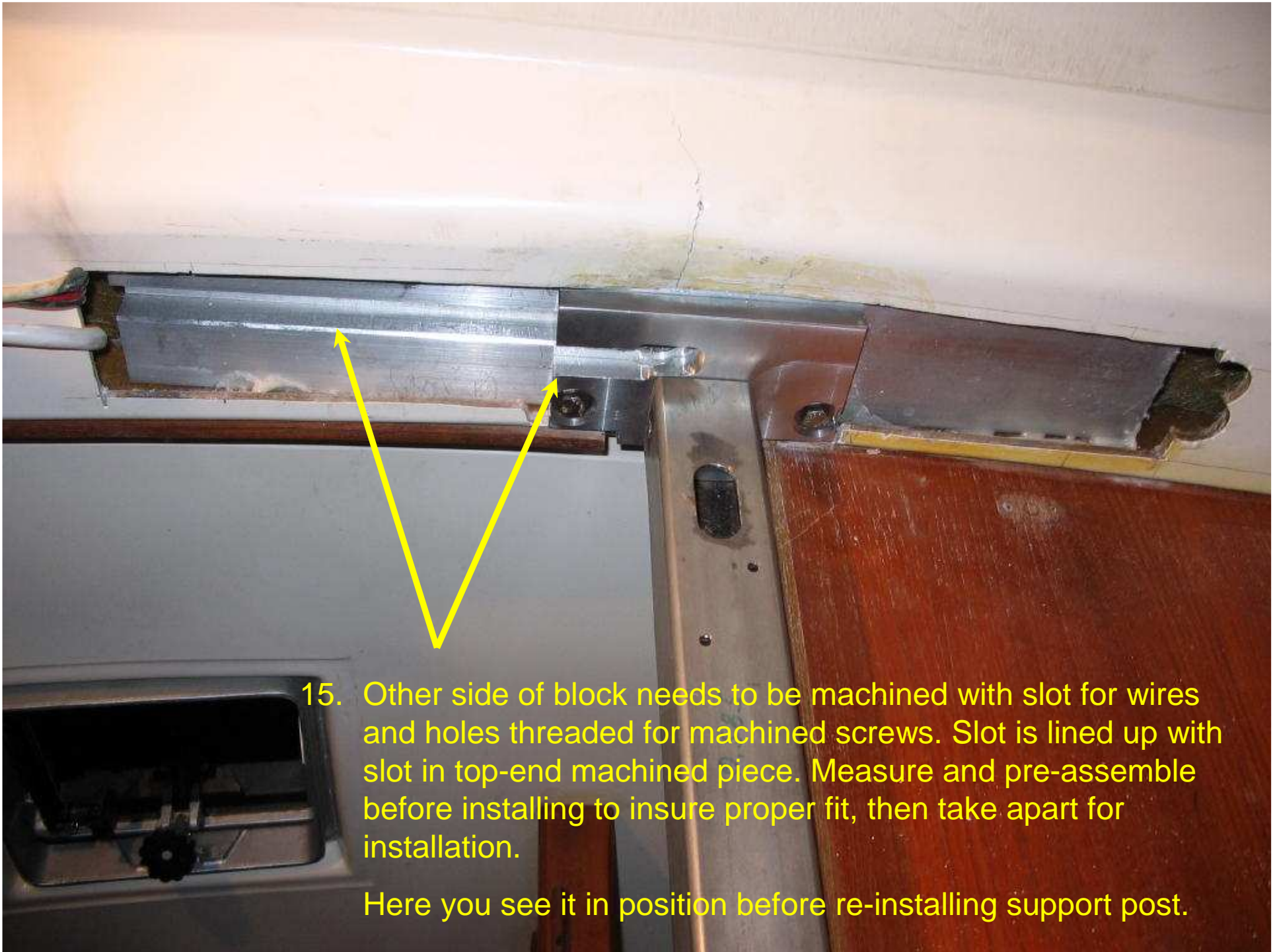




13. Install aluminum top piece with channel towards port side so that wire chase faces towards stern when inside of teak post. One machine screw is enough.

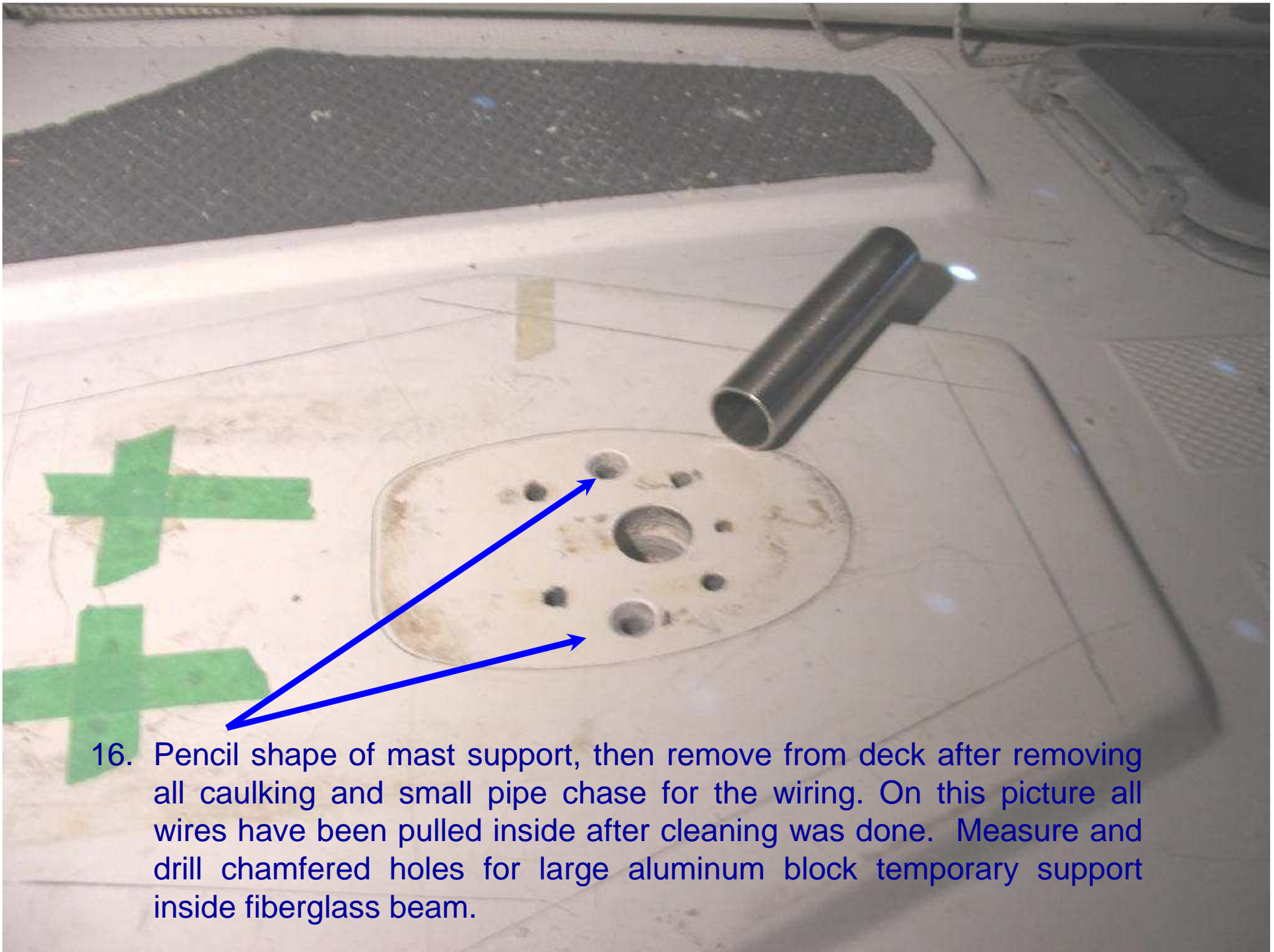


14. Have aluminum block machined with grooves for epoxy and hole for wire chase pipe as well as 2 holes threaded for machined screws



15. Other side of block needs to be machined with slot for wires and holes threaded for machined screws. Slot is lined up with slot in top-end machined piece. Measure and pre-assemble before installing to insure proper fit, then take apart for installation.

Here you see it in position before re-installing support post.



16. Pencil shape of mast support, then remove from deck after removing all caulking and small pipe chase for the wiring. On this picture all wires have been pulled inside after cleaning was done. Measure and drill chamfered holes for large aluminum block temporary support inside fiberglass beam.



17. Generously coat top side with epoxy (I used West 2-part system), making sure to fill the rectangular grooves. From this point a helper will be needed: one man inside and one on deck !

18. Man inside carefully brings up large aluminum block inside of cut out rectangle and lines up epoxy-coated side against deck fiberglass, lining up threaded holes in block with pre-drilled holes in deck.

Man on top inserts and tightens evenly the machine screws, thus bringing block tight against fiberglass for epoxy to cure on aluminum and fiberglass, filling every void and giving even support.



NB: No need to insert pipe chase until ready to feed the wires.



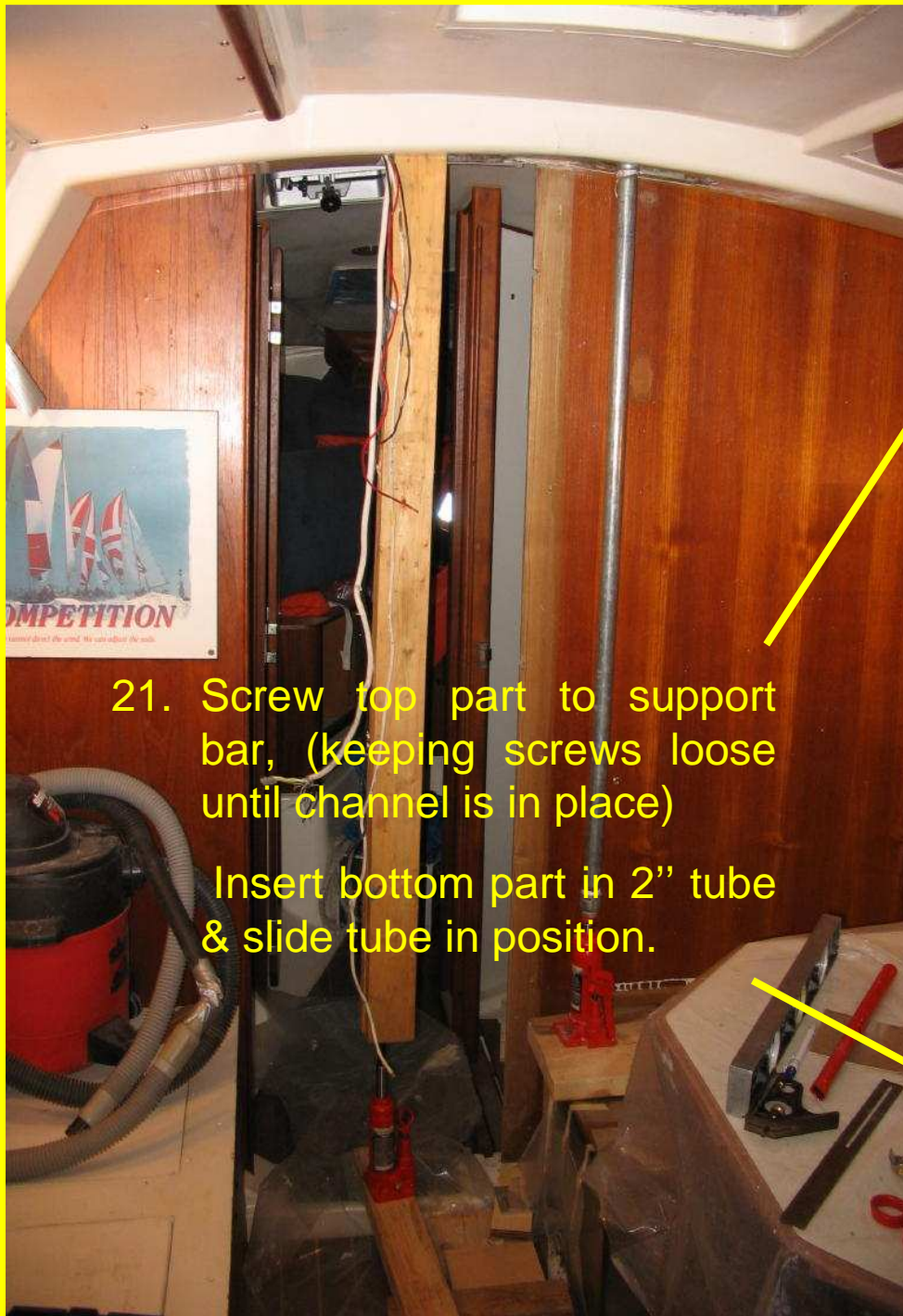
19. After block is installed and before epoxy sets, install jack in center of block and bring it up slowly, carefully raising the deck back to its original position.

The crack gap will get narrower. Re-tighten screws on deck after jacking-up is done.

Time to take a break, clean-up the mess and let the epoxy set overnight !

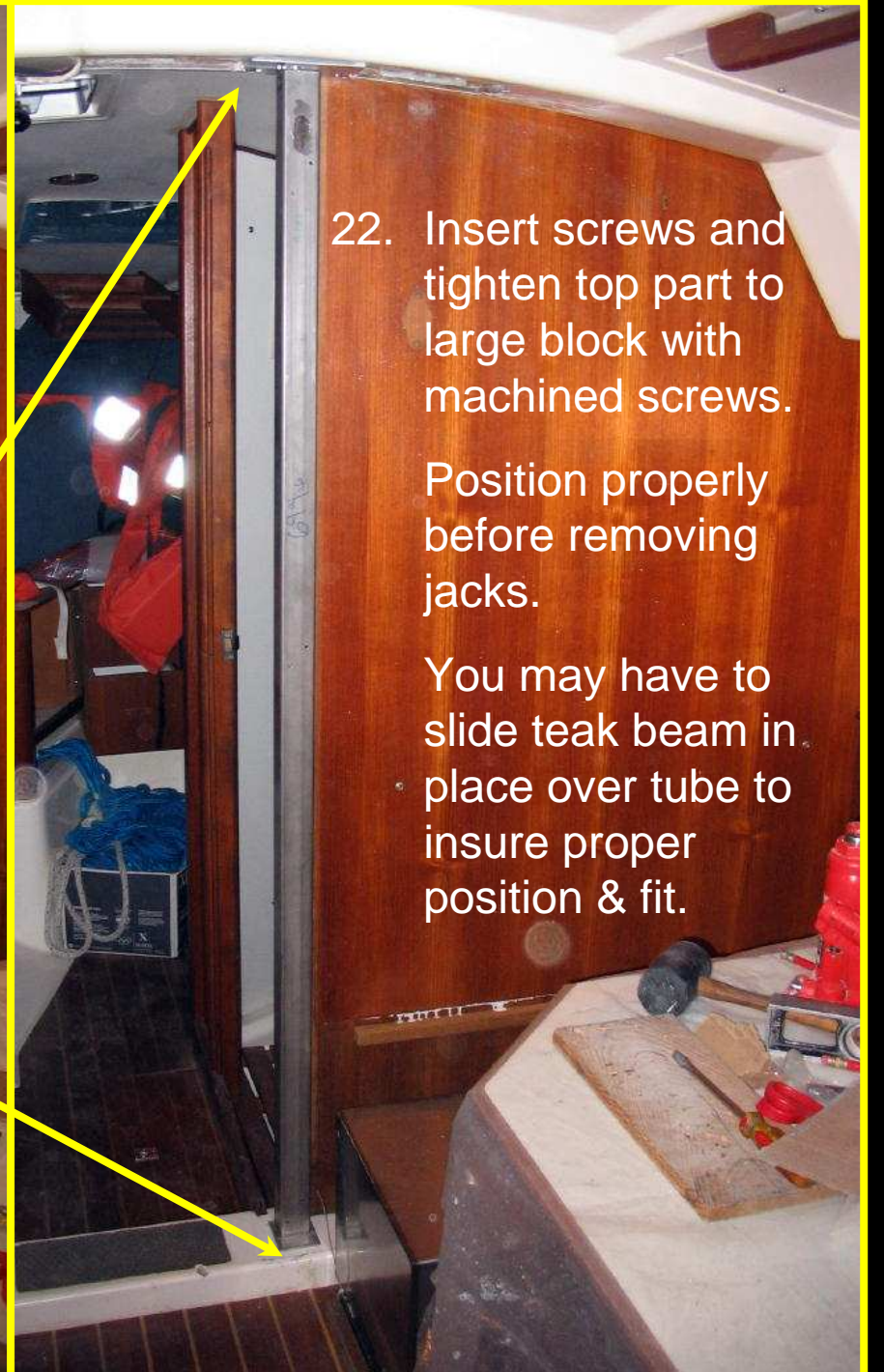


20. Install 2nd jack to portside end of block and move center one towards starboard side.



21. Screw top part to support bar, (keeping screws loose until channel is in place)

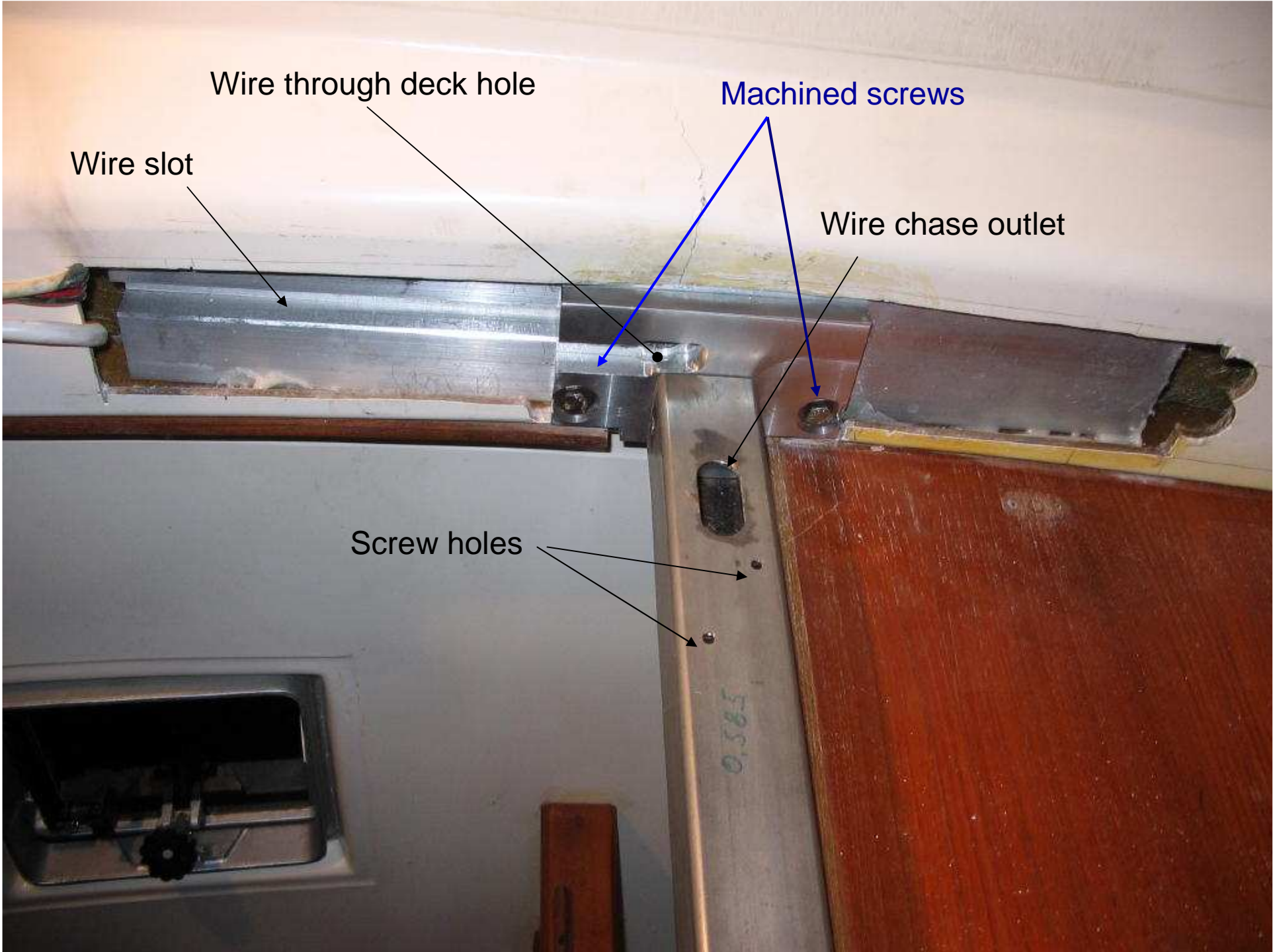
Insert bottom part in 2" tube & slide tube in position.



22. Insert screws and tighten top part to large block with machined screws.

Position properly before removing jacks.

You may have to slide teak beam in place over tube to insure proper position & fit.



Wire through deck hole

Machined screws

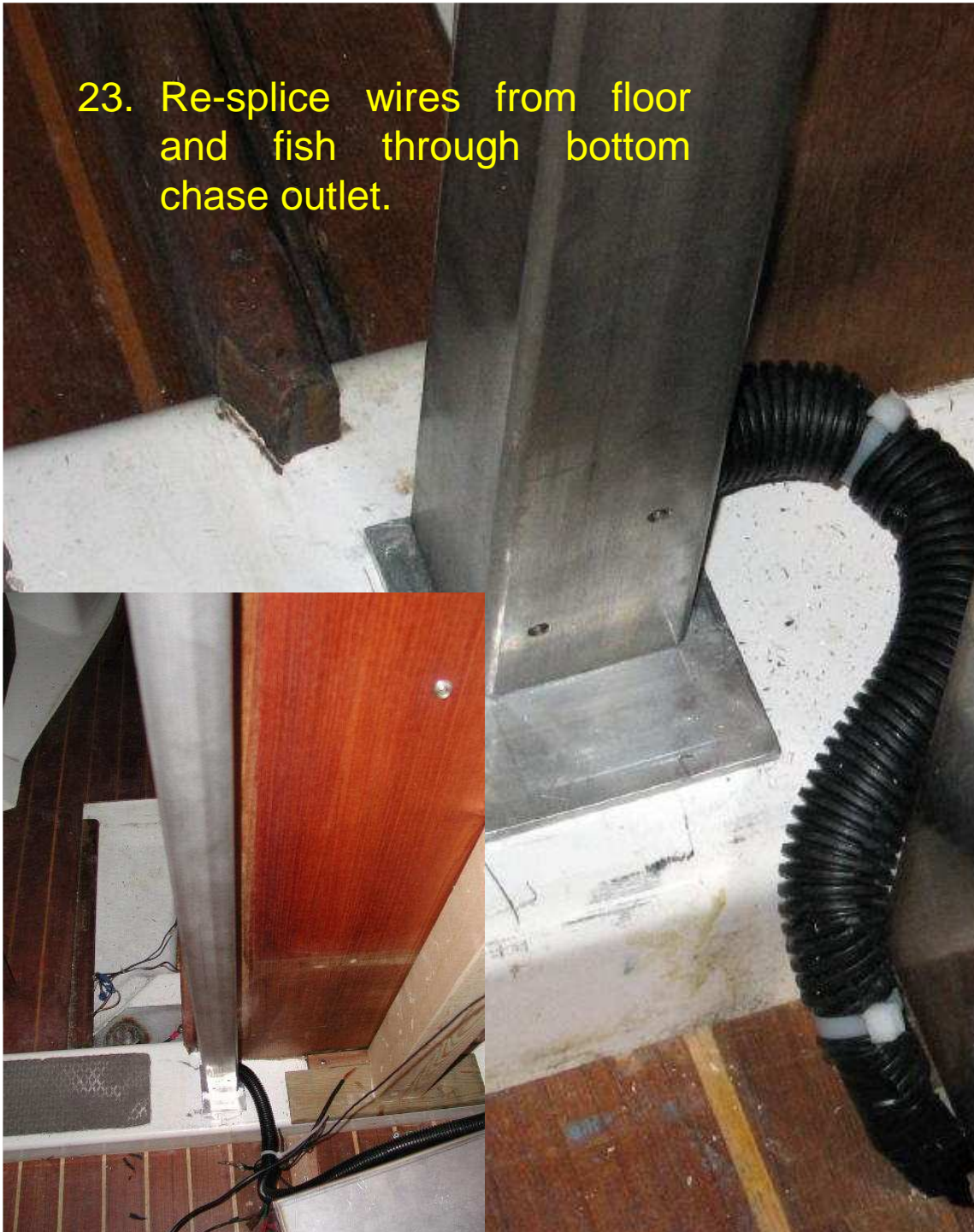
Wire slot

Wire chase outlet

Screw holes

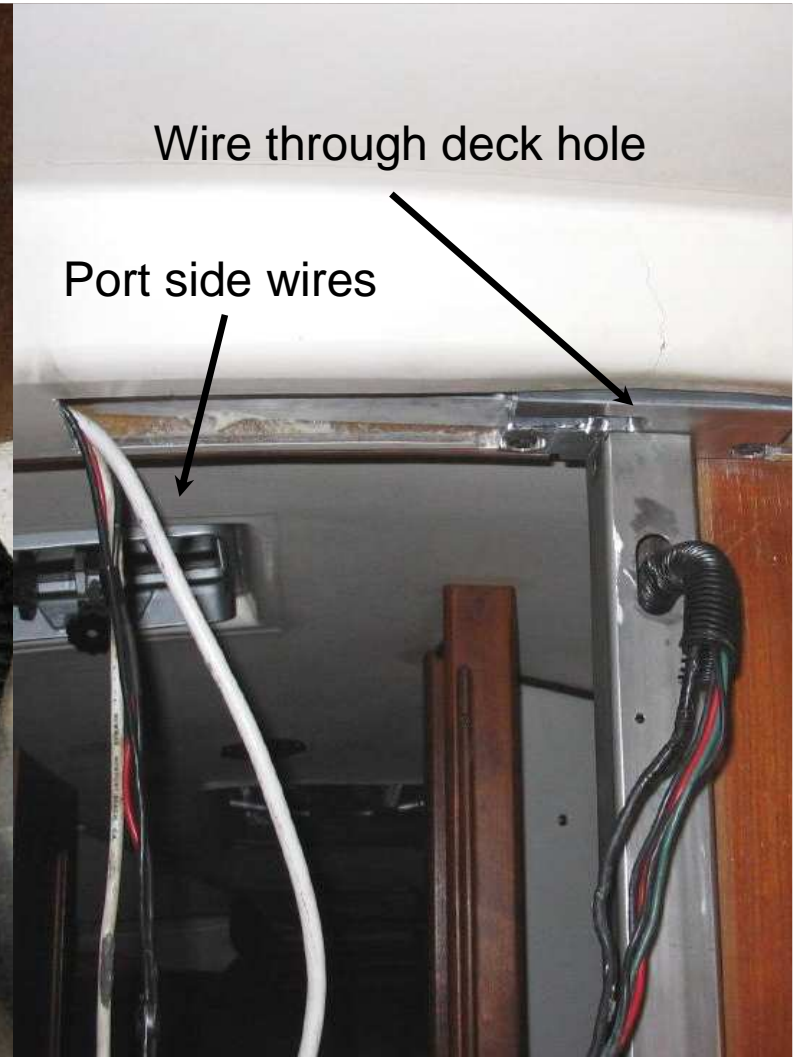
0.585

23. Re-splice wires from floor and fish through bottom chase outlet.



Wire through deck hole

Port side wires



24. Fish out of top wire chase outlet and into through deck wire hole.

25. Put port side wires into channel and fish through deck

26. My brother-in-law prepared mix and installed fiberglass mat.

Wet mat was supported with ¼” plastic sheets on jury-rigged jack-legs. Plastic sheets were covered with mylar strips to give sticky-free fairly smooth finish.

Once hardened, smooth out with grinder. Final hand sanding.

Cover everything & vacuum often.

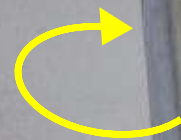


27. Fiberglass finished and sanded as smooth as possible. It was coated with a thin coat of white gelcoat.

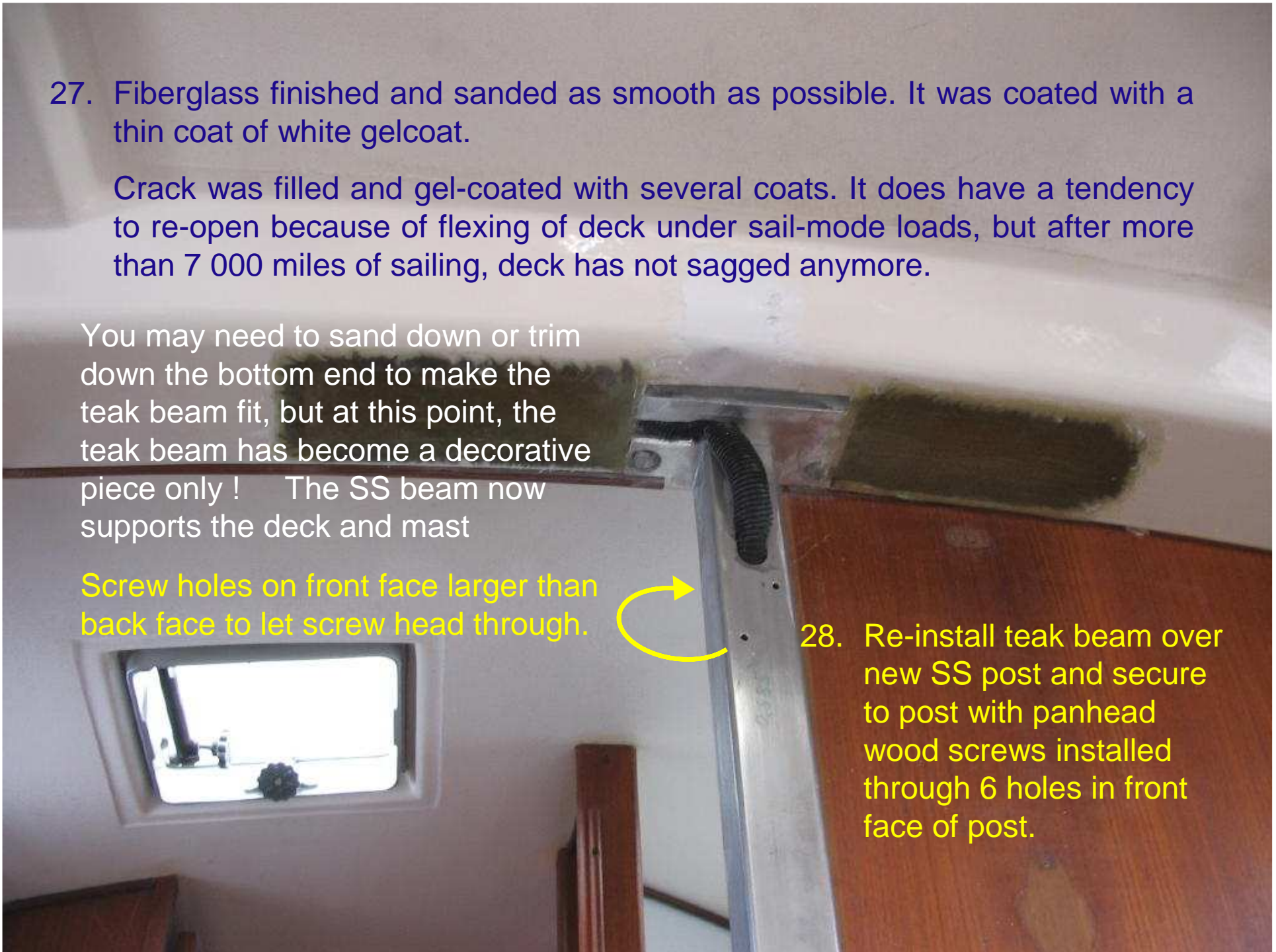
Crack was filled and gel-coated with several coats. It does have a tendency to re-open because of flexing of deck under sail-mode loads, but after more than 7 000 miles of sailing, deck has not sagged anymore.

You may need to sand down or trim down the bottom end to make the teak beam fit, but at this point, the teak beam has become a decorative piece only ! The SS beam now supports the deck and mast

Screw holes on front face larger than back face to let screw head through.



28. Re-install teak beam over new SS post and secure to post with panhead wood screws installed through 6 holes in front face of post.



29. Re-install door jam and door.



30. Once post installed, rather than try to match a wide area of gelcoat, I chose to install a piece of teak to cover the traverse beam. I used wood plugs to hide the screws.





Hunter 34

Compression Post Repair

I hope the photos and details described above are of some value to you and provide help in your project.

It really isn't that difficult of a repair and if you do a lot of the disassembly/re-assembly yourself, you can save a lot on the labor rates that the yards have to charge.

The SS truss channel and the aluminum support bars could be made at a local machine shop for a reasonable amount if you don't have access to the tools like I did.

I would suggest you also cut a window 3.5" X 1.75" in the mast before re-installing. It is not hard to do with a Dremel tool and it makes stepping/un-stepping the mast so much easier and safer.

Good Luck and do not hesitate to call me with any questions.

Claude L. - Auger