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Installing the tips - based on vertical stab, but the others are similar:

1. See if the fiberglass tip is flat on the open end. Mine was not. It bowed up about 3/16" in the middle. Not a big deal. Just means you don't want to measure the section to be removed until it is in place. That's how these directions are written.

1a. Check that the tip is at least square, if not flat. Move it so the aft half of the tip is off the table, so it sits on the forward tip and the two sides. Check that it is sitting so the centerline is vertical. If not, sand/cut until it sits evenly so the edge distances in step 2 are consistent.

2. Measure an edge distance line on the forward half of the tip. I don't recall seeing this directly on the T14 print, but I used 3/8". This edge distance line is what you want centered as you look through the rivet holes in the skin.

3. Drill the stabilizer to final size, 1/8" holes all around, including the metal tip rib.

4. Remove the metal tip rib and any clecoes to about 4 or 5 holes away from the tip. This allows the skin to give enough to get the fiberglass tip in there.

5. Insert the fiberglass tip. Working front to back worked for me.

6. Push the tip as far forwards as possible.

7. Center the edge distance lines in the rivet holes.

8. Drill the holes to 1/8. Fiberglass drills easy & quick. Don't have the metal tip rib in there at this time. I worked aft to front drilling the holes, one side at a time.

9. Mark the aft portion of the tip rib to be cut off with it clecoed in place on the stabilizer. I used a carpenter's square along the spar aft edge. Since the open side of the tip rib isn't necessarily straight, using the carpenter's square instead of measuring in from the edge of the fiberglass will give a straight line.

10. Mark the corner point where the cut off portion ends. I drilled this with the 1/8" bit for later enlarging to 1/4" dia. with the unibit.

11. Remove the clecoes, remove the tip.

12. Enlarge the corner holes to 1/4" dia. with the unibit.

13. Cut off the portion to be removed with a fiber-reinforced cutoff wheel in the dremel. It cuts easy and fast. I used 150 grit sandpaper on a sanding block to get the fiberglass right down to the line - turned out very straight.

14. Measure for the holes in the tip that are for the aft support rib. Pilot drill these holes to 3/32.

15. Draw edge distance lines on the aft support rib side flanges.

16. Line up the aft support rib with the tip rib. I drew a centerline down both, and used a piece of 1x1x.125 angle to line up the centerlines. Use the fore-aft dimension on the print for axial location of the aft support rib. Drill the two ribs to each other and cleco. (I didn't put that 1/8" joggle in the rib, just cut a 1/8" thick spacer and made the rib long enough to overlap it.)

17. Place the metal tip rib with aft support rib back onto the stabilizer (cleco it to the spar ends).

18. The toughest part - put the fiberglass tip over the tip rib but under the skin. I worked from front to back. Don't worry that the portion of the rib forward of the forward spar gets pushed down into the stabilizer (so the holes don't line up).

19. With the holes aft of the spar clecoed through, I used the 1/2" dia. rod for the windshield bow inserted in the

leading edge of the stabilizer from below to push the forward portion of the tip rib back outboard so the holes all lined up.

20. Push or pull the aft support rib in or out of the tip until the edge distance lines show through the pilot holes. Pilot drill this, then final size it.

21. Disassemble, debur, reassemble, rivet.