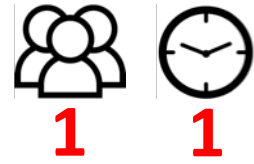


1.13 PREPARE SHROUD CHAINPLATE BORES

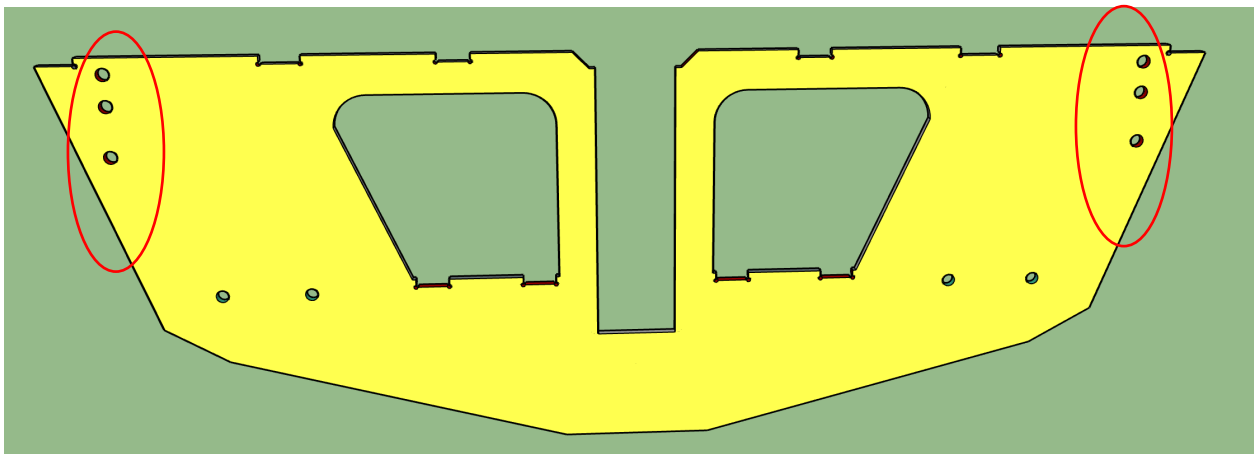


Background

The three large bores on the left and right side of Rib 5 are where the shroud chainplates will be thru-bolted later. To make these bolting locations strong and water-tight you need to fill them with 403 adhesive-thickened epoxy. After curing, you will drill smaller inner holes within the epoxy plug, to accommodate the thru-bolts. This arrangement effectively creates epoxy bushings to surround the thru-bolts, isolating the bolts from the wood spine.

Procedure

- 1) Locate part 97. Apply foil taped to one side of the six chain plate boreholes indicated in the diagram below.

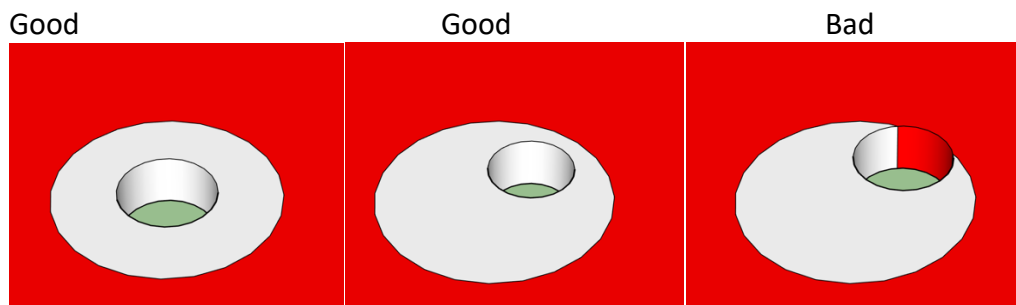


- 2) Lay the part on the table over a piece of plastic, with the foil tape against the plastic and the open ends of the bores facing upward.
- 3) Use a brush to lightly coat the inside of these bores with unthickened epoxy.
- 4) Mix a batch of 403 adhesive-thickened epoxy with a viscosity that allows it to run easily down the sides of the mixing cup, such that it can be poured easily from the mixing cup.
- 5) SLOWLY pour the mixture into these bores. Pour slowly enough that the width of the poured stream is never more than half the diameter of the bore, so that the air inside the bore can escape as the epoxy fills the hole. You do not want any air trapped inside the bores.
- 6) Use a nail or screw to agitate the contents, to assist air bubbles clearing.
- 7) Fill them flush to the top, and clean up any over-pour with a paper towel.
- 8) After 30 minutes, check for settling, and refill the bores with new 403 adhesive-thickened epoxy mixture.
- 9) Allow to cure for 12 hours before moving.
- 10) Remove tape.
- 11) Inspect both sides of all bores, to ensure that the bores are filled completely with the epoxy plugs. If not, refill with 403 adhesive-thickened epoxy and allow to cure overnight again.
- 12) Sand all chainplate bore plugs flush with the sides of the rib.

- 13) Locate a chainplate in the hardware kit.
- 14) Position the chainplate over the three plugged bores on the PORT side of Rib 5, with the chainplate holes centered within the epoxy plugs. The holes in the chainplates are 3/8" diameter, and the bores are slightly over 3/4" (19mm) diameter. Center all three the 3/8 hole inside the 3/4 plugs.
- 15) Clamp the chainplate tightly to the rib, using multiple clamps. Keep the clamps away from the holes.
- 16) Insert a 3/8" bit into your drill, locate the bit inside one of the chainplate holes, and drill vertically through the epoxy plug beneath that hole, using the chainplate as the drilling guide.

It is very important that the drilling be done at 90 degrees to the rib. Hold the drill in place, and have someone else view the angle from several steps away for better perspective. Keep the drill vertical throughout the drilling process.

- 17) Repeat 18 for the other two holes in the port side, without moving the clamped chainplate.
- 18) Remove the chainplate, and verify that none of the drilled holes touches the wood of the rib. These drilled inner holes should be entirely contained in the epoxy plug.



If the drilled hole touches the wood, you MUST back up, refill the hole, and repeat the entire plug fill-cure-drill process. It is ESSENTIAL that the chainplate bolts be entirely surrounded by the epoxy bushing, to prevent damage to and water intrusion into the wooden rib.

- 19) Locate three 3/8" bolts provided for the shroud chainplates, and insert all three through the chainplate and rib on the port side. Verify that you can insert all three bolts at the same time.

If you cannot insert one of the bolts, leave the other bolts inserted through the plate and rib, clamp the chainplate firmly to the rib, and drill out the remaining hole with a 3/8" bit while using the chainplates as a drilling guide.

- 20) Repeat steps 14-19 for the bores on the other side of Rib 5.
- 21) Remove hardware and place it back with the rest of the hardware.