

Installing conventional Robart style hinges in your Extra 300

If you are new to this type of hinging process then I recommend that you install a single hinge first just to acquaint yourself with this method.

Before starting the process get a few items together that will aid you as you proceed. You will need the following items: 30 minute epoxy (we recommend Mercury Adhesives Epoxy), a scrap piece of pushrod or 1/8" dowel, paper towels and denatured alcohol.

Mix a generous batch of 30 minute epoxy.

Use the pushrod or dowel to thoroughly coat and fill the hinge hole with epoxy, then coat the hinge with epoxy. Push the hinge into its hole until the joint is about a 1/4" from its final position and use a paper towel to remove the excess epoxy that has been forced from the hole.

Push the hinge the rest of the way in and make sure the hinge pin is centered in the hinge line. Use some denatured alcohol and a paper towel to remove all excess epoxy, especially on the hinge pin. When you are satisfied with the result set the surface aside to dry. Position the drying piece so that any excess epoxy will pool around the rear of the hinge.

When you are comfortable with this process you should be able to do one side of a surface per batch of epoxy. Glue all hinges into the stabilizer first. After the glue has set trial fit the elevator to the stab and adjust if necessary. There should be as little gap as possible between the stab and elevator. When satisfied with the fit remove the elevator and repeat the gluing process outlined above. Be sure to wipe away all excess epoxy with an alcohol soaked paper towel!

Set aside to dry. Repeat this process for the other stab/elevator half, ailerons and rudder.

After the hinges have dried thoroughly, pull on them to make sure they are properly installed. The hinges will probably feel a little stiff as it is almost impossible to get all of the glue out of the knuckle joint. Spray each hinge knuckle with DuPont Teflon Silicone Lubricant or a similar plastic-safe lubricant. Move the surface back and forth a few times and you will feel it loosen up.

Wipe away any remaining lubricant from the surface with an alcohol soaked paper towel and seal the bottom of the hinge gap with a strip of Ultracote or Blenderm tape. Be sure to fully deflect the control surface when applying the tape or Ultracote to allow full deflection once the gap is sealed.