

75-TA-6
Horizontal Stabilizer
and Elevator Mounting



This manual has been prepared for assembly of the Elevator to the Horizontal Stabilizer. This photo assembly manual is intended as a supplement to the drawings. If there is any discrepancy between this manual and the drawings, the drawings supersede this manual. For information on building standards and tolerances see "Construction Standards for Zenair Light Aircraft" available from Zenith Aircraft Co.



Lay the Horizontal Stabilizer and Elevator up-side-down on beams. The top surface of both should make a flat surface.



Set a 7mm spacer between the leading edge of the Elevator and the Rear Spar of the Horizontal Stabilizer on each side and push the Elevator tight to the spacer.



Check: There should be clearance between the leading edge of the Elevator and the Stabilizer Rear Bracket. If required file the Stabilizer Rear Bracket for clearance.

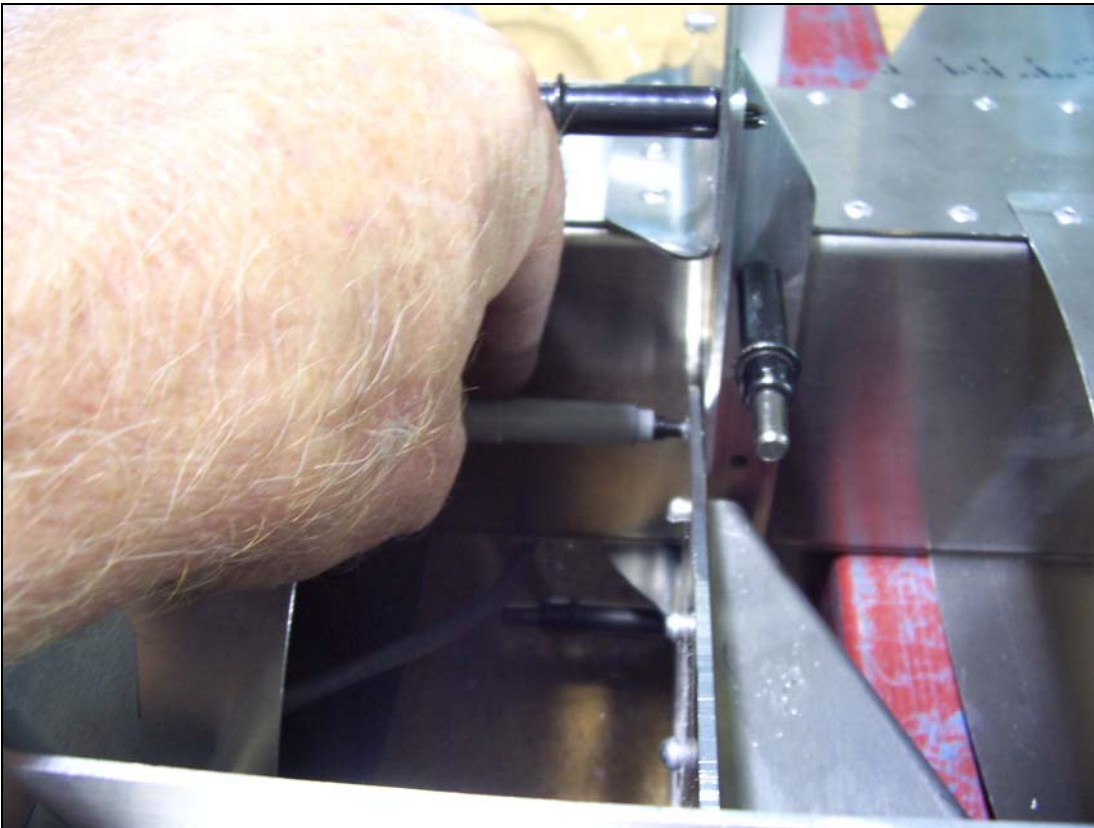


Tape the Elevator to the Horizontal Stabilizer to keep it from shifting when installing the Outboard Hinge Brackets.

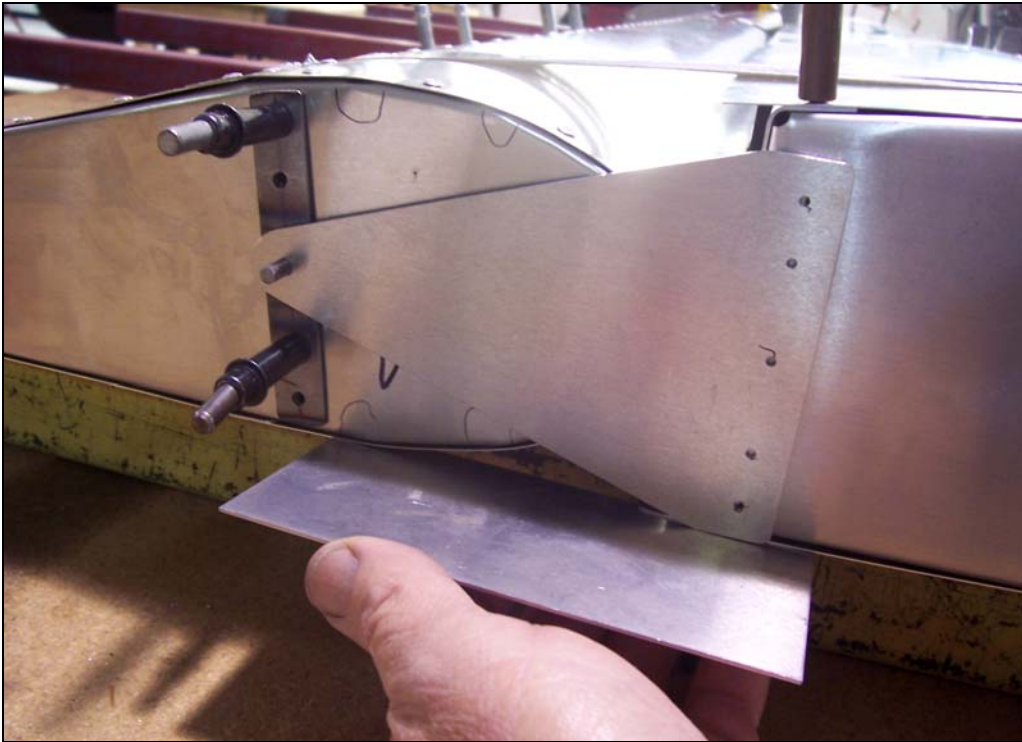


P/N: 75T2-6
Horizontal Stabilizer
Outboard Hinge
Bracket

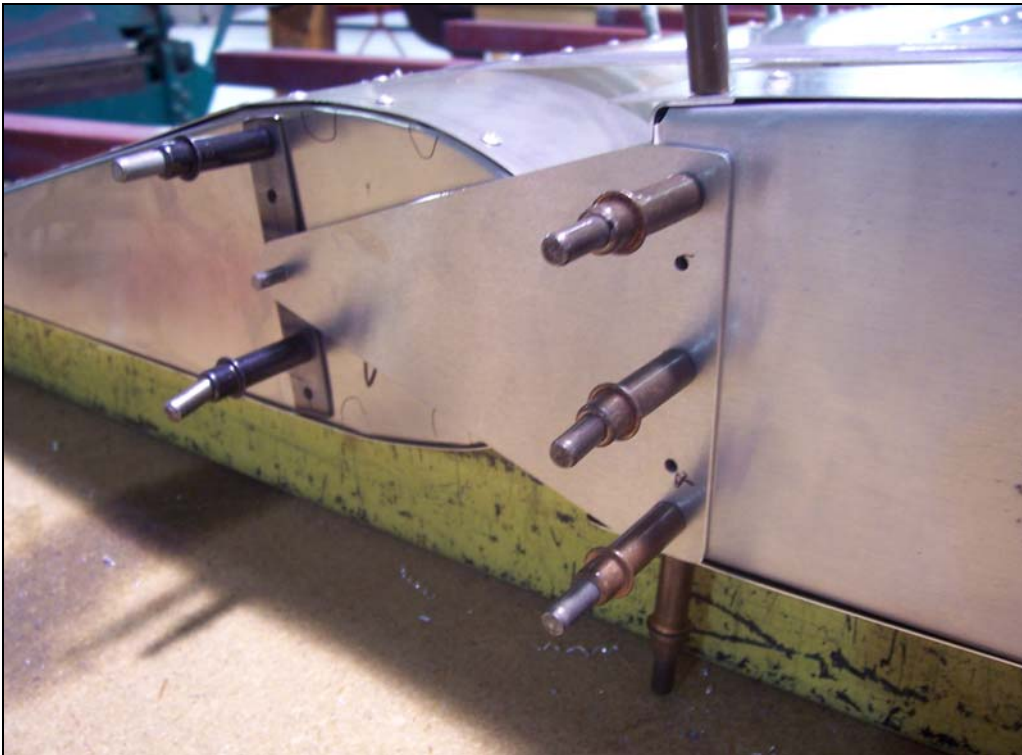
Open the hole on the end of the Outboard Hinge Bracket with a #12 drill bit.



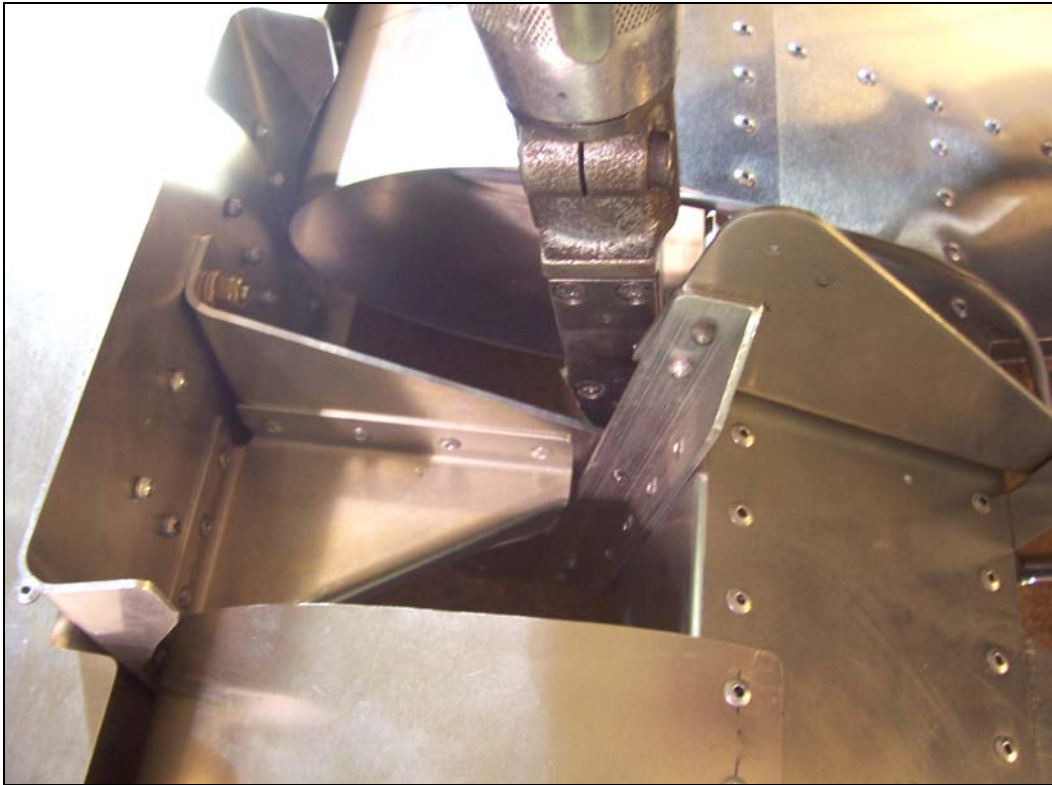
Check: Make sure there will be sufficient edge distance on the bolt and bushing for the Center Hinge. Also check the clearance between the Center Hinge Bracket and the Elevator Spar. Adjust the thickness of the shims between the Leading Edge of the Elevator and the Rear Spar of the Horizontal Stabilizer if required.



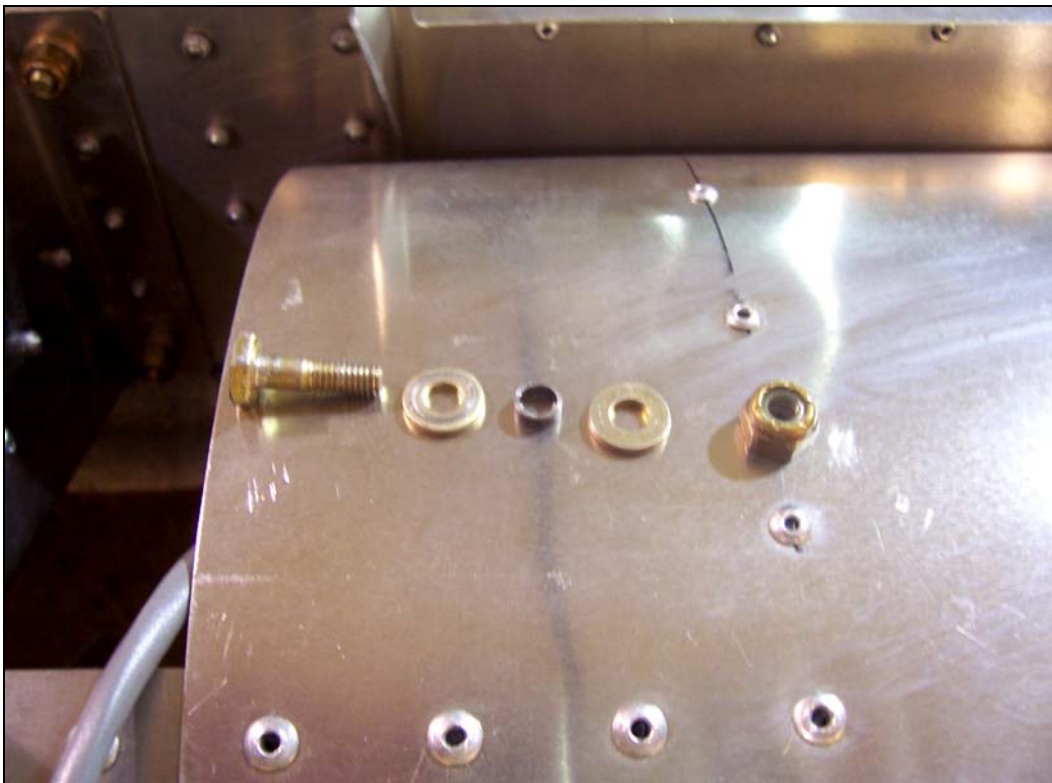
Slide the Outboard Hinge Bracket on the Hinge Pin. The top of the Outboard Hinge Bracket should be approximately flush with the top of the Horizontal Stabilizer.



Back drill through the holes in the Outboard Hinge Brackets with a #30 drill bit and Cleco. Expand the holes with a #20 drill bit and Cleco.



Use an Angle Drill to back drill through the Center Hinge Bracket into the Horn Angle. Expand the hole in the Center Hinge Bracket to 1/4" and expand the hole in the Horn Angle with a #12 drill bit.

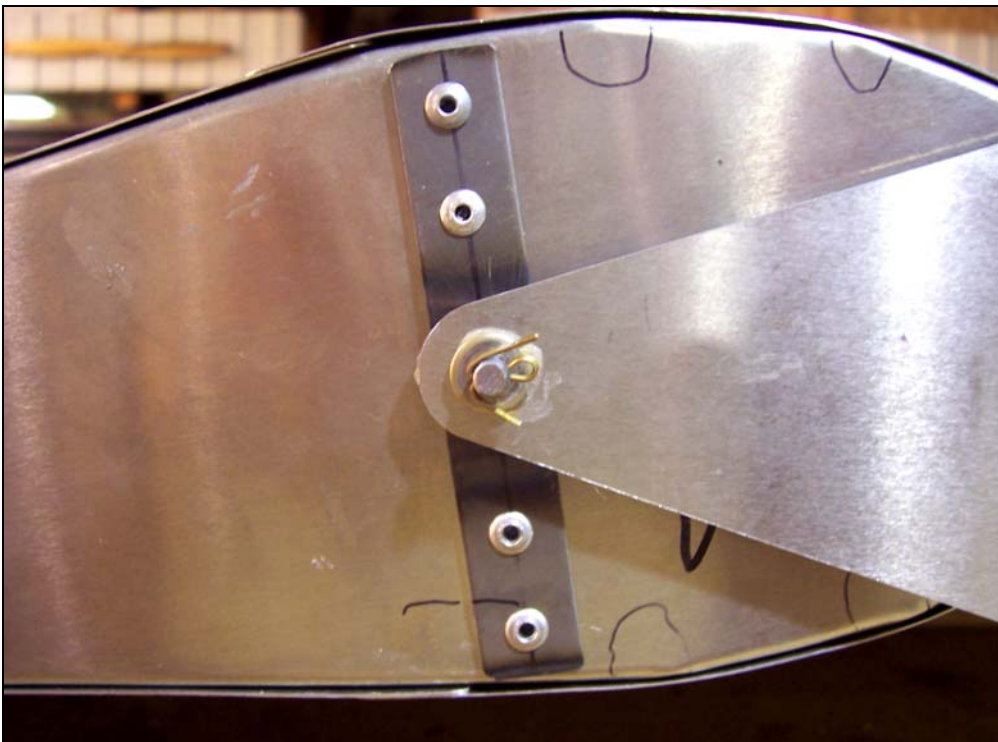


P/N: 75T4-9
Elevator Center
Hinge Bushing

Grease the Center Hinge Bushing before installing it in the Center Hinge Bracket. Install the Center Hinge Bushing and bolt the Center Hinge together.



Install a washer between the Hinge Pin and Outboard Hinge Bracket and another washer outboard of the Outboard Hinge Brackets. Use a center punch to mark the position of the 1/16" hole for the Cotter pin. Drill a 1/16" in the Hinge Pin and install a Cotter Pin through the hole.



Deburr the Outboard Hinge Brackets, reinstall the washers, and Outboard Hinge Brackets with a Cotter Pin. Rivet the Outboard Hinge Brackets to the Stabilizer Tip Ribs.

Note: Be sure to grease the Outboard Hinge Pin before final installation.