

75-TA-2  
Horizontal Stabilizer Skin



This manual has been prepared for assembly of 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.



**P/N: 75T1-1**  
Horizontal Stabilizer Tip Rib

**P/N: 75T4-1**  
Horizontal Stabilizer Skin

Cleco the Tip Rib on to the Rear Spar. Set the Skeleton on 2" x 2" beams with the top up. Allow the Skin to over hang the work bench and Cleco the Skin to the Skeleton. Be sure the Horizontal Stabilizer is level and without twist. Expand the predrilled holes to A4 in the Skin to the Skeleton.



Flip the Horizontal Tail over. Be sure that the tail isn't setting on any Clecos as they can ding the skin. Draw a center line on the bottom flanges of the Front and Rear Spars, the Nose Ribs, and Rear Ribs.



Trim the L angle to clear the crimps in the Tip Rib. Draw a center line on the L angle and lay out 3 rivets to attach the L angle to the Tip Rib. From the ends of the L angle measure 10mm for the first rivet, then place the third half way between the end rivets. Drill to A4 and Cleco the L angle to the Tip Rib.

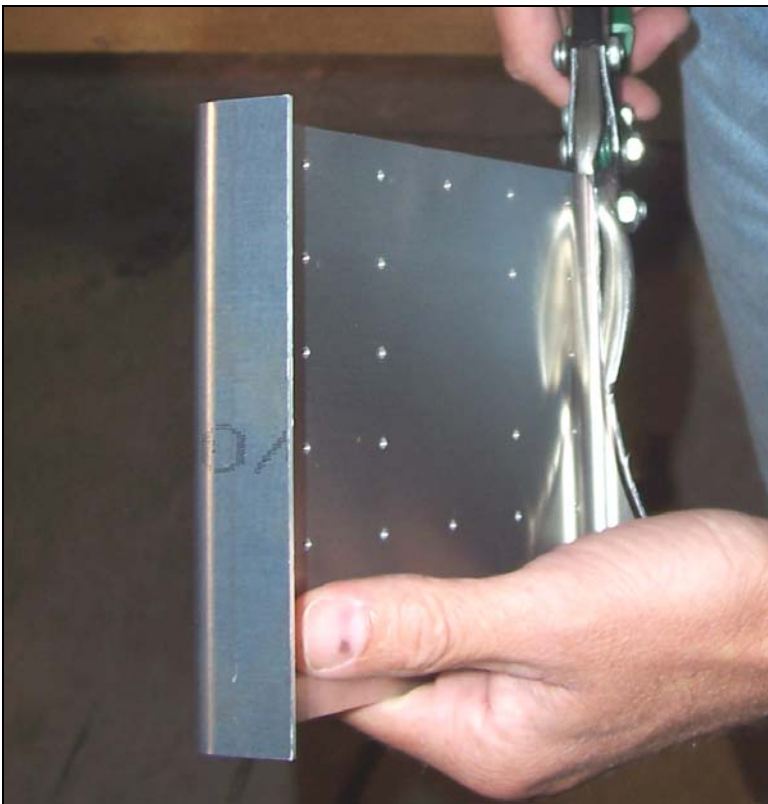
**Note:** The Skin was removed in the photo above for better clarity.



Use Ratchet Straps to pull the skin down tight to the ribs (Use 4 Ratchet Straps as a minimum, 7 are shown in the above picture). Use a 2" x 4" as a support between the Ratchet and the Rear Spar to avoid damaging the over hang of the Skin. When the Skin is tight to the Ribs the center lines on the Front and Rear Spars should be visible through the predrilled holes in the Skin.

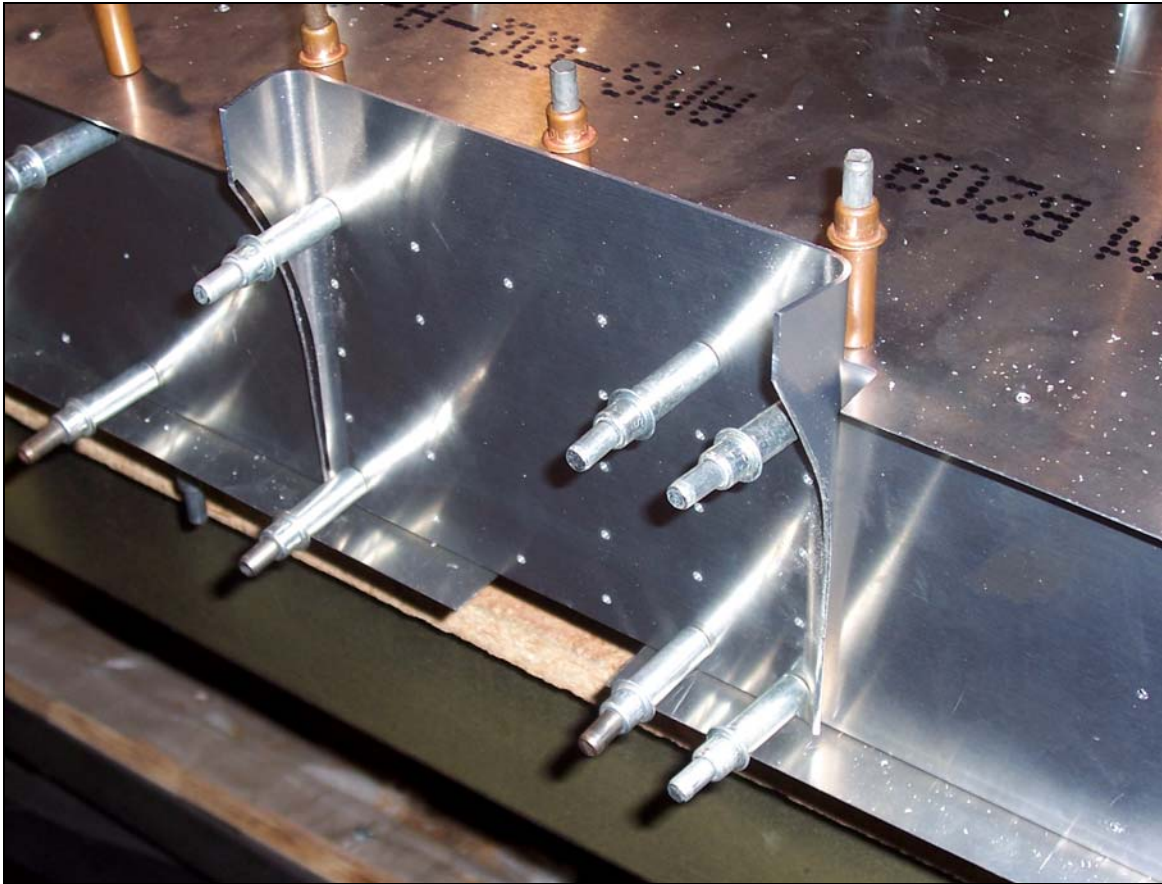


Check the Horizontal Stabilizer is level and without twist. Drill the holes to A4 and Cleco the Skin to the Skeleton.



**P/N: 75T2-5**  
Horizontal Stabilizer  
Rear Bracket

Holding the Snips up-side-down trim along the line marked on the inside of the Rear Bracket. File any rough edge left from the Snips smooth.

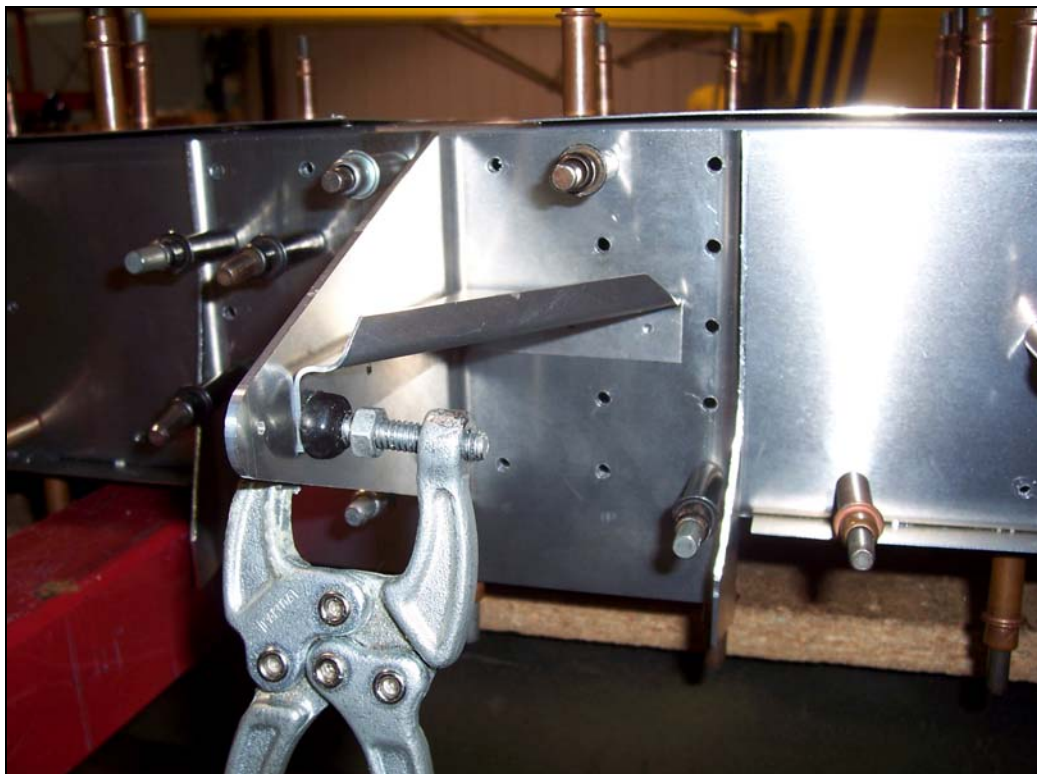


Cleco the Rear Bracket to the Rear Spar. (The Horizontal Stabilizer is up-side-down in this photo.)



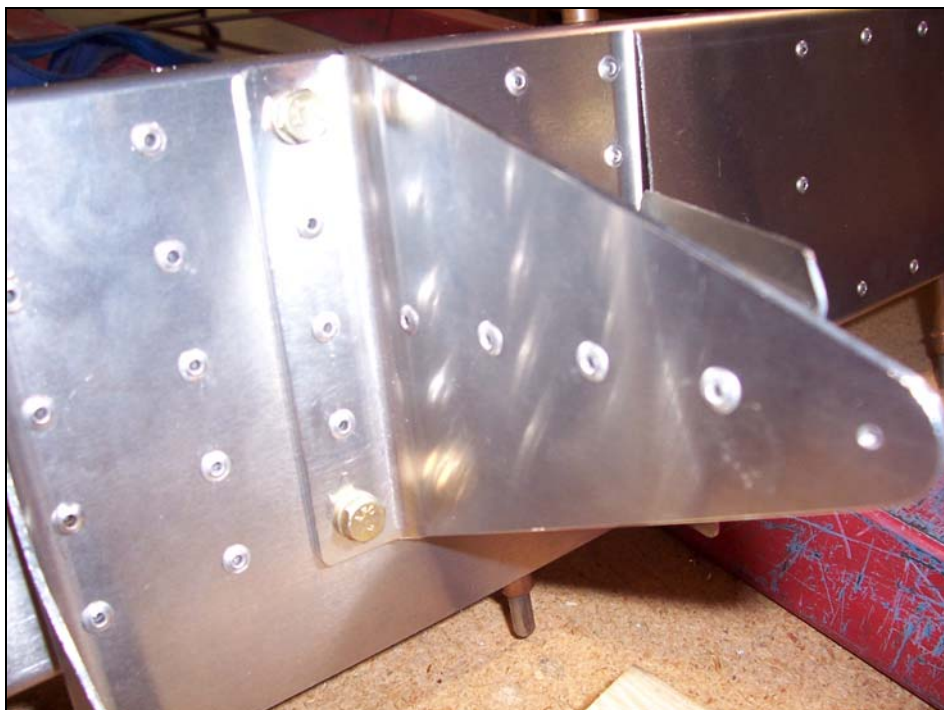
**P/N: 75T2-7**  
Horizontal Stabilizer  
Center Hinge Bracket

Cleco the Center Hinge Bracket to the Rear Bracket and Rear Spar. (The Horizontal Stabilizer is right side up in this photo.)



**P/N: 75T2-8**  
Horizontal Stabilizer  
Center Hinge Gusset

Position the Center Hinge Gusset rivet line 50mm from the top of the Center Hinge Bracket. Clamp the Center Hinge Gusset to the Center Hinge Bracket. Drill and Cleco the Center Hinge Gusset to the Center Hinge Bracket and to the Rear Bracket.



Expand the predrilled holes in the Rear Bracket, Center Hinge Bracket, and Center Hinge Gusset to A5. Drill the top and Bottom hole in the Center Hinge Bracket for AN3-5A bolts with 2 washers each.