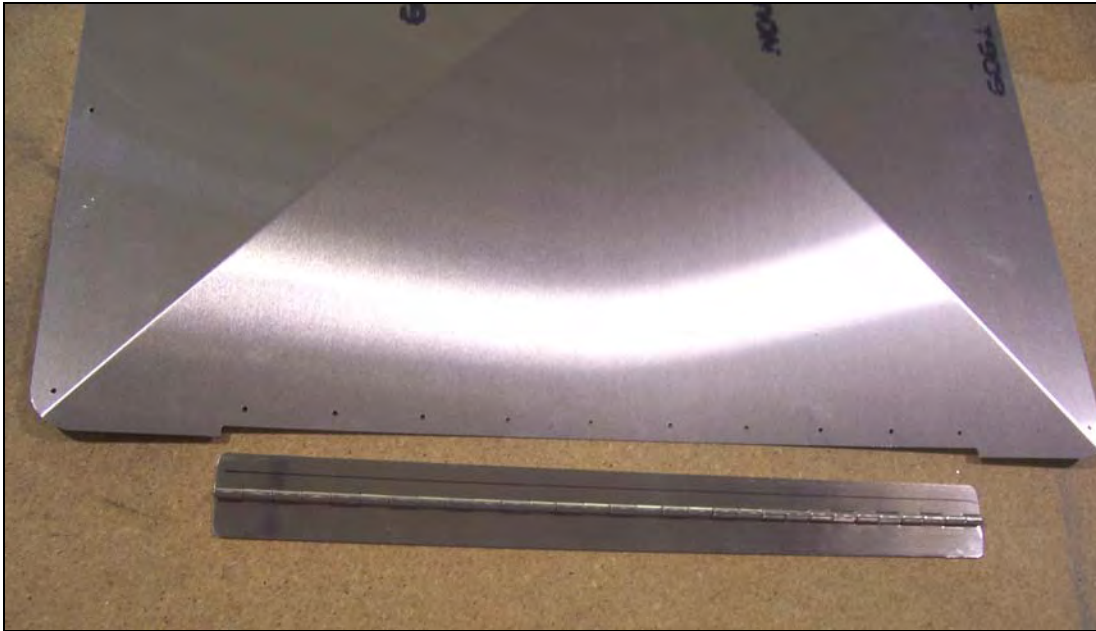


## Section 6-B-3 Rear Side Skins Rear Fuselage Members



This manual has been prepared for assembly of the rear fuselage. 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 more information on building standards and allowable tolerances see "Construction Standards for Zenair Light Aircraft" available from Zenith Aircraft Co.



**P/N: 6B3-8**  
Access door

**P/N: 6B3-7**  
Piano Hinge (Access Door)

Draw a center line on one side of the Piano Hinge.

**Orientation:** The barrel of the Hinge should be towards the outside of the aircraft (on the same side as the diamond bends).



Position the Hinge under the Access Cover centered on the cutout of the barrel of the Hinge. With the line visible through the predrilled holes, clamp the Hinge to the Access Cover. With a #30 drill bit, back drill through the Access Cover into the Hinge and Cleco.



Deburr the holes and rivet the Hinge to the Access Cover. Then draw a center line on the remaining side of the Hinge.



Position the Hinge on the Fuselage between the Bottom Skin and the Z Channel centered over the Access Hole in the Bottom Skin.

**Note:** Use Duct Tape to hold the Access Cover in place on the Bottom Skin to prevent shifting while drilling.

With the center line visible through the holes in the Bottom Skin, back drill into the Hinge and Cleco.



Back drill through the Access Cover into the Bottom Skin and Cleco. With a #12 drill bit, expand the holes for the Screws.



**P/N:** MS21075L3  
Nutplate

**P/N:** AN525-10R7  
Screw

Use a Screw to Position the Nutplates on the Bottom Skin and Clamp one side of the Nutplate. With a #40 drill bit, back drill and Cleco the Nutplate to the Bottom Skin. Deburr the holes and rivet the Nutplates to the Bottom Skin with A3 rivets.

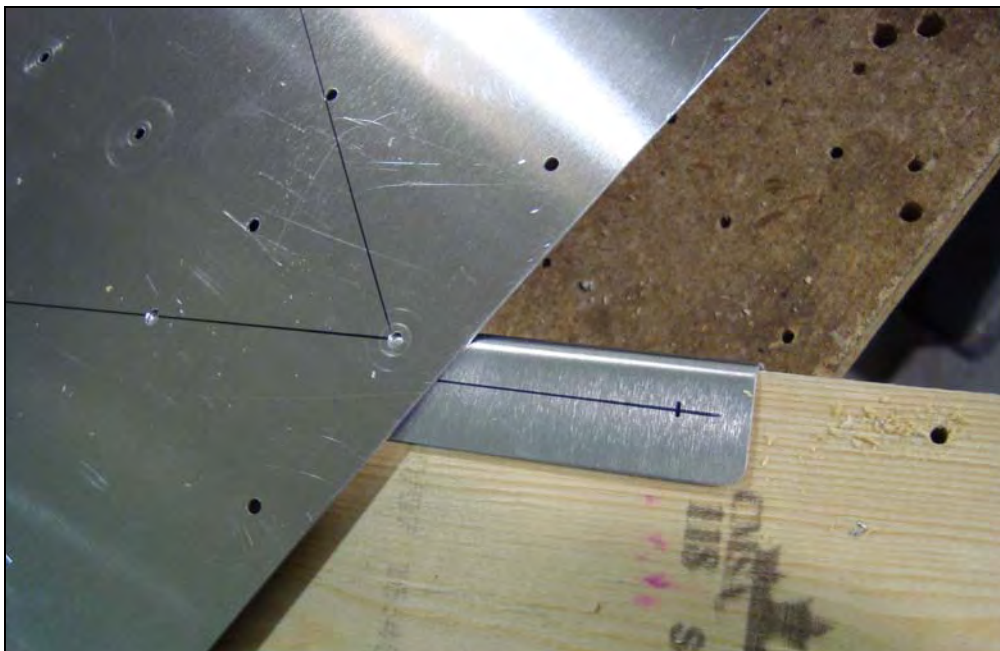


**P/N: 6B3-1**  
Fuselage Rear Side  
Skin

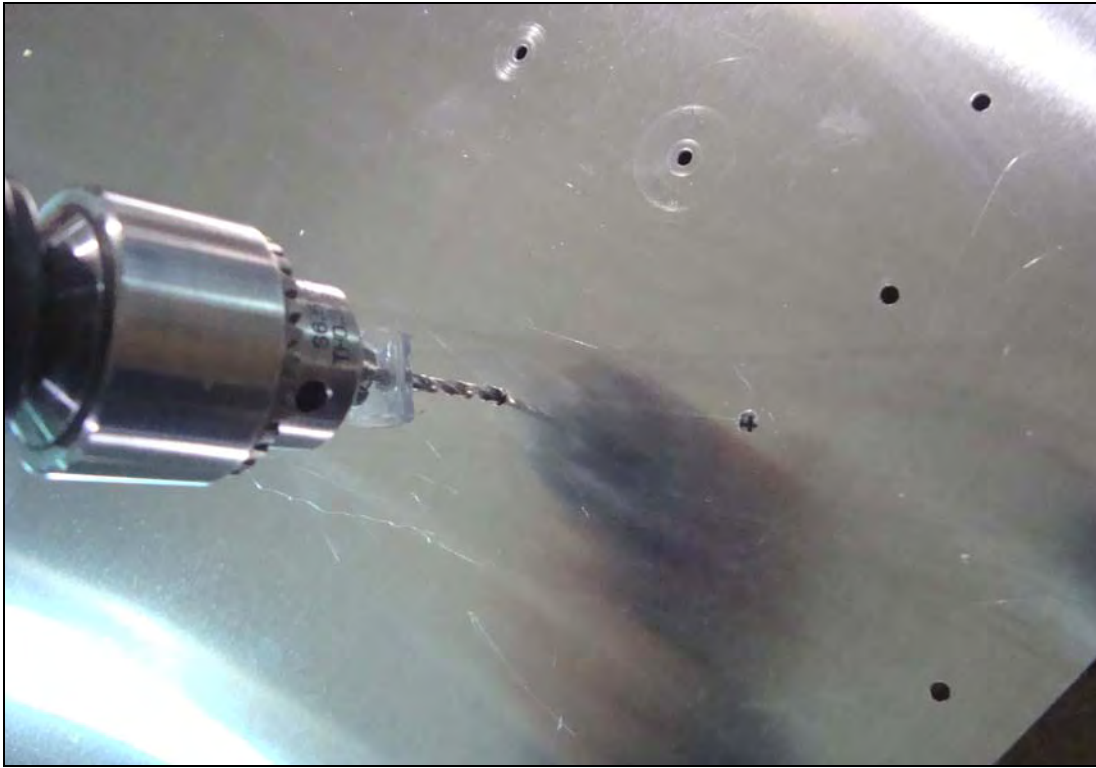
Draw a center line on one flange of the L Angle.

**Orientation:** The bend on the L Angle is towards the front.

Mark and drill the first hole 10mm from the bottom of the L Angle. Cleco the first hole in the L Angle through the corresponding hole in the Side Skin. Back drill and Cleco when the rivet line on the L Angle is visible through the predrilled holes.



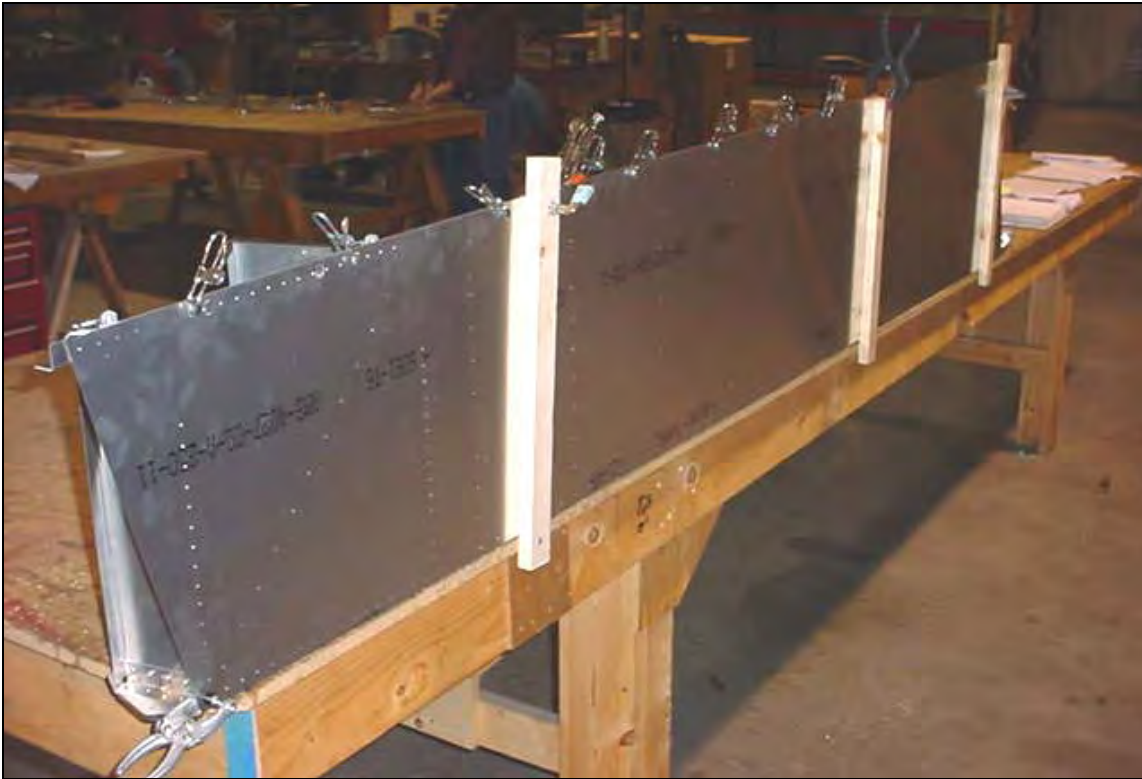
Draw the center line on one flange of an L Angle. Mark and drill the first rivet location 10mm from the end of the L Angle. With a #40 drill bit, drill the hole and Cleco the L Angle to the Side Skin for the diagonal L Angles.



Back drill the remaining holes in the Side Skin into the L Angle and Cleco. Repeat these steps for the remaining diagonal L Angles.



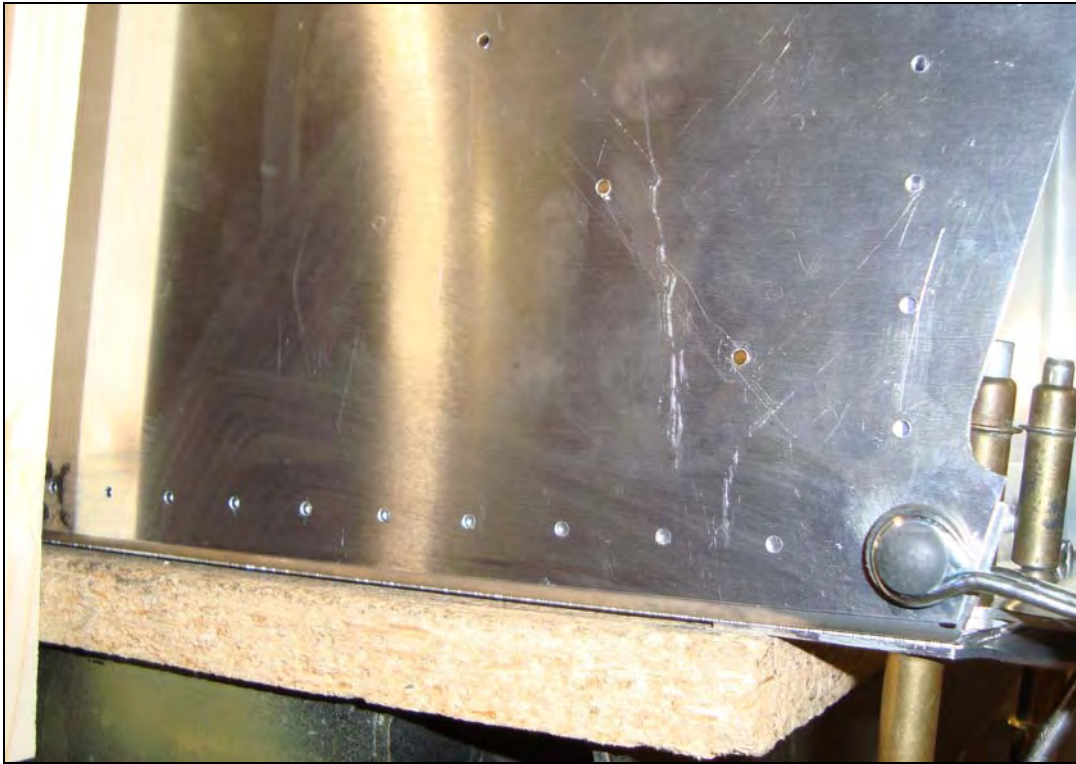
Draw a center line on the side flanges of the H.T. Frames.



Screw some 1x2 boards to the side of the workbench to help support the side skin. Mark the vertical L Angles 10mm above the top rivet hole location and trim the L Angles on the line.



Position the Side Skin against the 1" x 2" boards. Slide the Bottom Skin against the Side Skin. The Clecos holding the L Angles to the Side Skin will need to be removed at the bottom to allow the Longerons to Slide between the L Angles and the Side Skin.



Position the rear corner of the Side Skin so the bottom edge of the Side Skin is at the edge of the bend radius of the Longeron. Clamp the Rear Side Skin to the Longeron.



The bottom front corner of the Side Skin should be flush with the Bottom of the Longeron. Clamp the Side Skin to the Longeron.





**Check:** The H.T. Frame's flange center line should line up with the predrilled holes in the Side Skin when positioned correctly in the for/aft direction.

Back drill through the Side Skins into the Longerons with a #40 drill bit and Cleco.



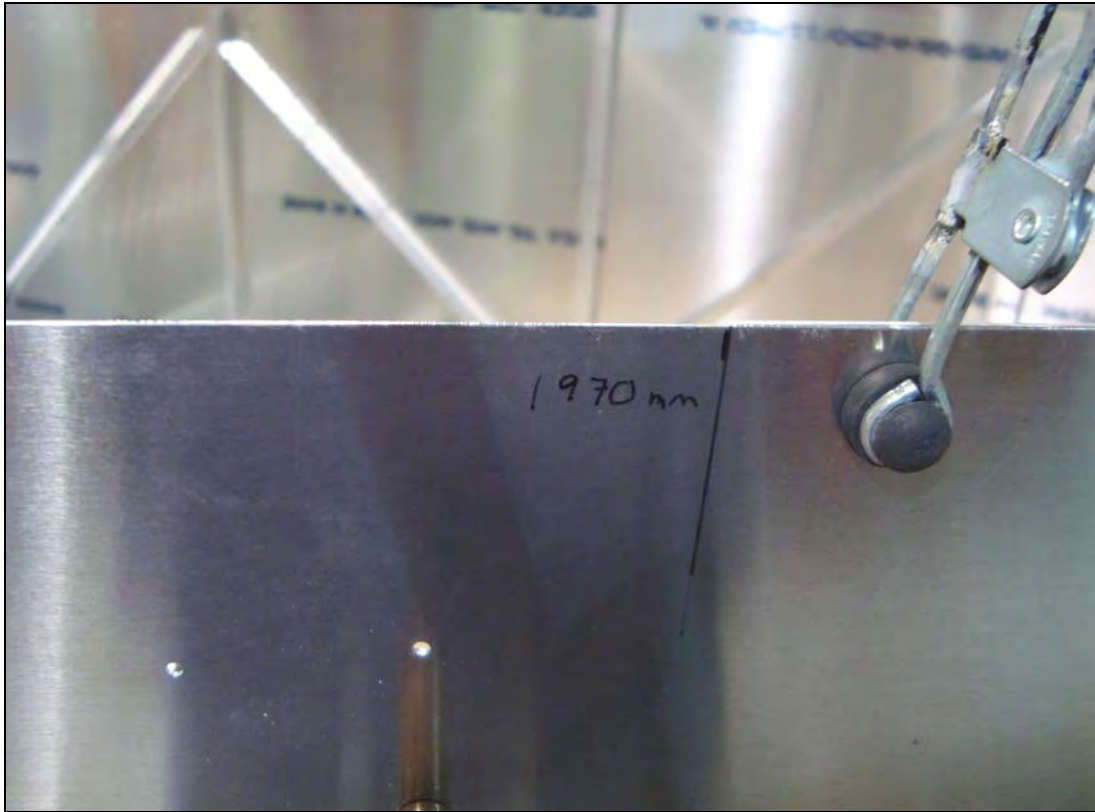
Position the H.T. Frames so the flange center line is visible through the predrilled holes in the Side Skin and clamp the H.T. Frame to the Side Skin. Back drill through the Side Skin into the H.T. Frame and Cleco.



Remove the L Angle forward of the Front H.T. Frame. Mark and trim the inside flange of the L Angle 55mm from the bottom for clearance around the Rudder Cable. Be sure to leave the bend radius on the L Angle.



Mark the edge of the Side Skin and Bottom Skin on the Longeron. The Longeron will be trimmed on the line when it is removed to be deburred.



Mark a line 1970mm from the aft end of the Side Skin. Position the front of the Longeron at the 1970mm mark and flush with the top of the Side Skin. Clamp the Longeron to the Side Skin.