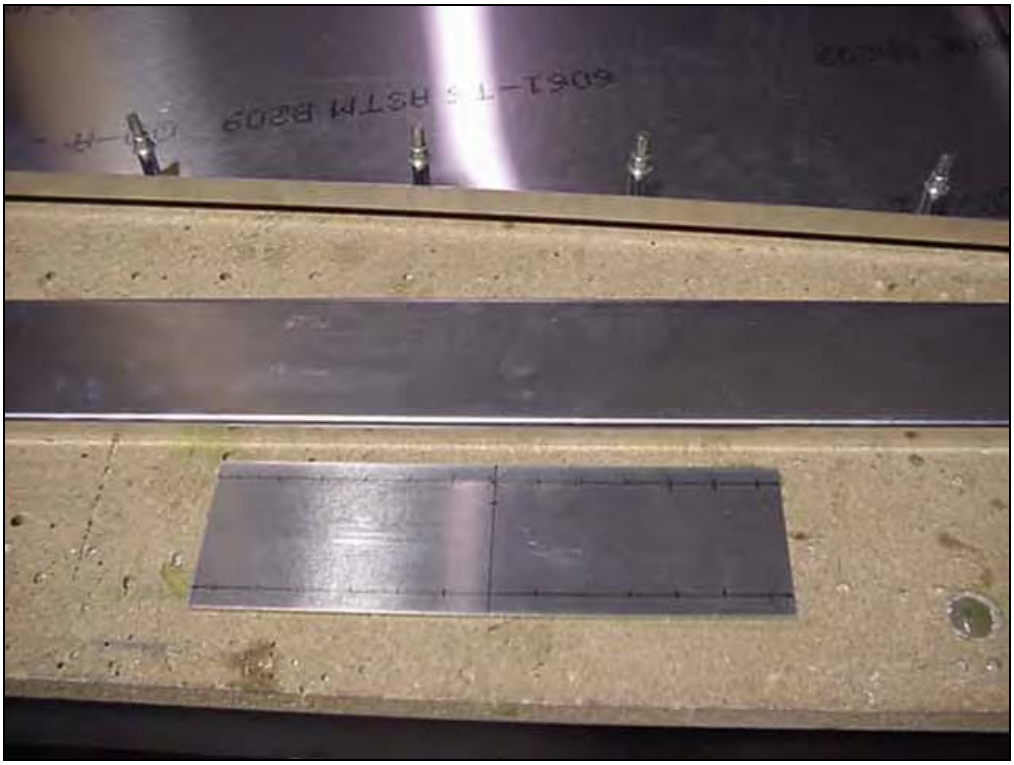
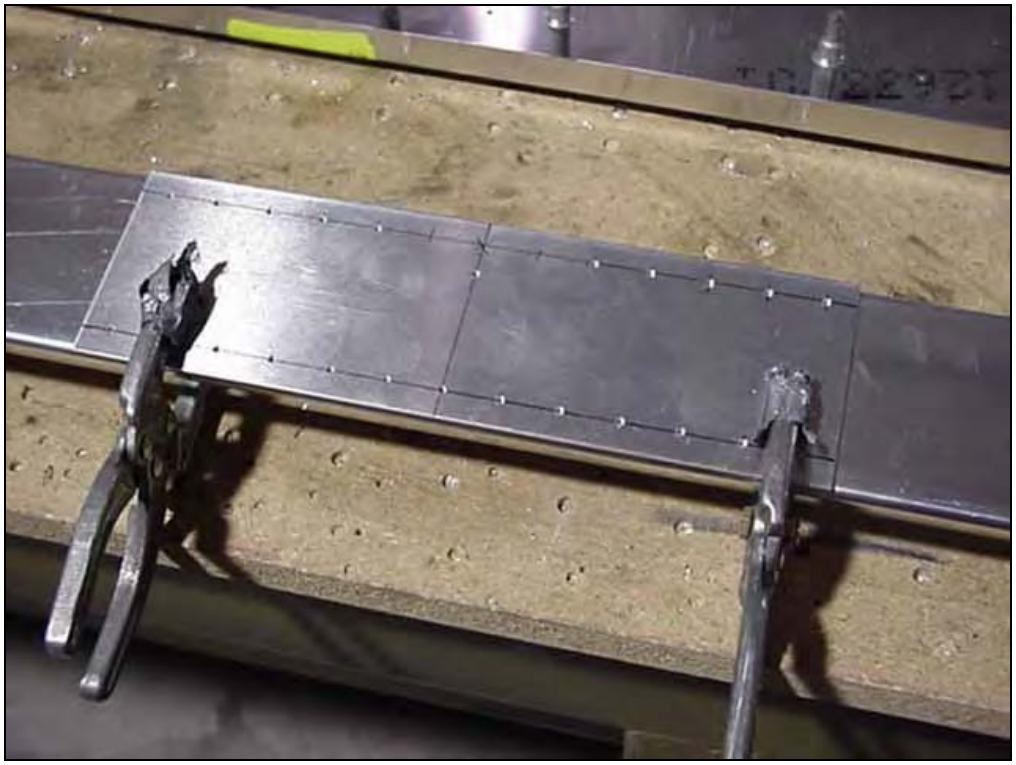


7F6-1 Bottom Channel
7F6-2 Rear Torque Tube Bearing

Layout and predrill the Rear Torque Tube Bearing with #40.

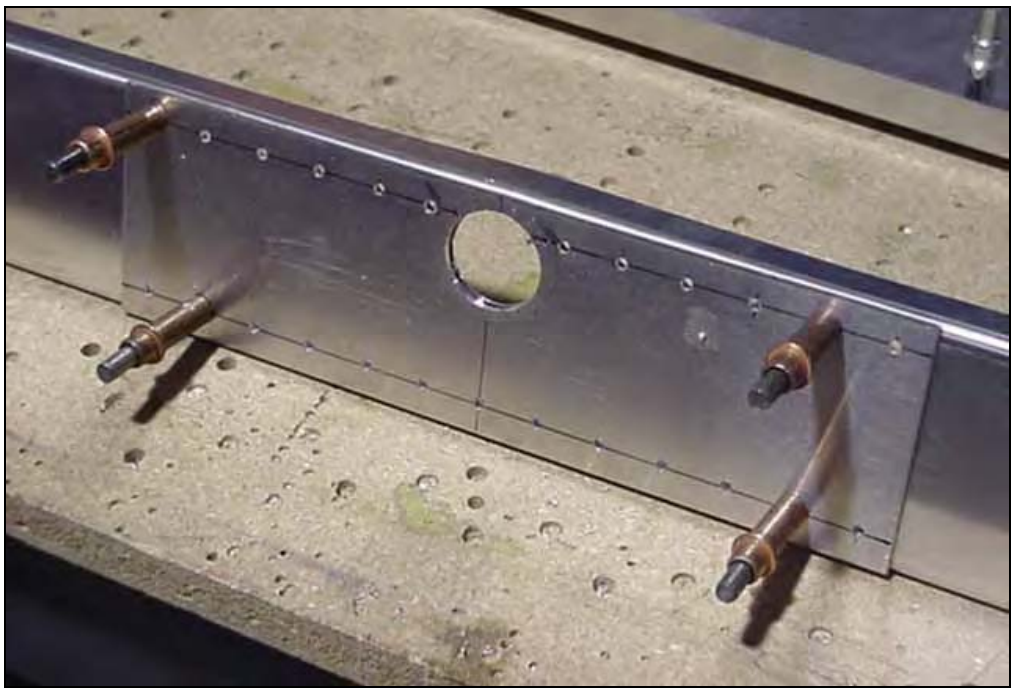
7F6-1 Bottom Channel

The Bottom Channel has an 18 degree bent flange; this is the bottom side.



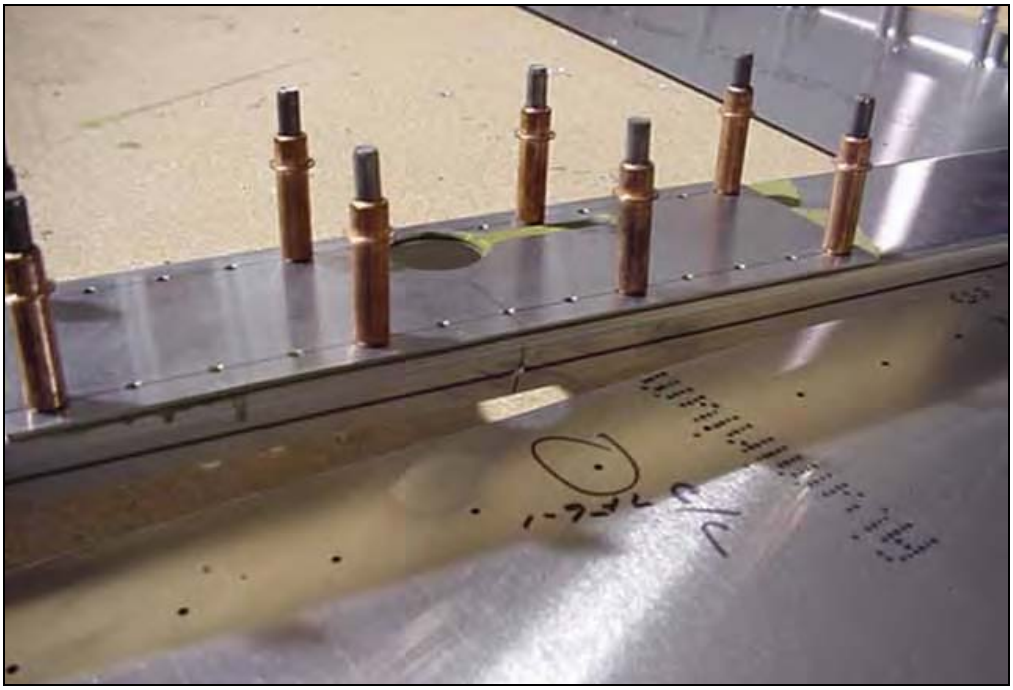
7F6-1 Bottom Channel
7F6-2 Rear Torque Tube Bearing

Mark a center on 7F6-1 Bottom Channel and clamp the Rear Torque Tube Bearing 7F6-2 at this location. Drill and cleco A4.



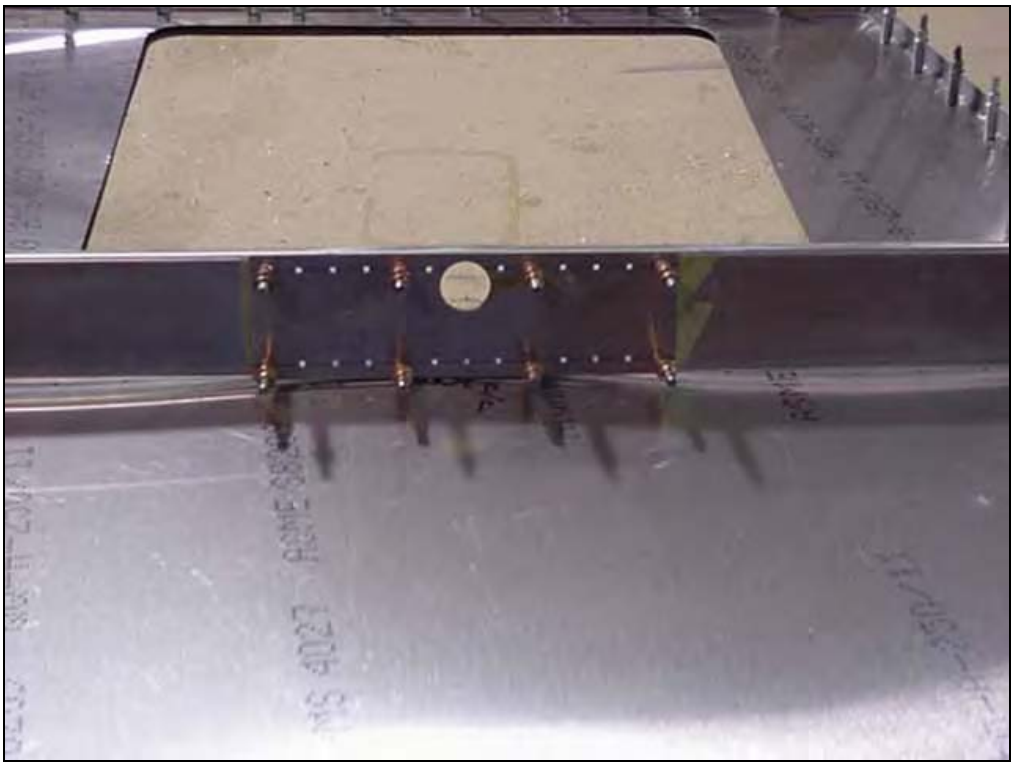
7F6-1 Bottom Channel
7F6-2 Rear Torque Tube Bearing

At the center 55mm from the bottom there will be a 1-1/8” hole, this is for the Torque Tube 7C2-2. Using a Flat Face 1-1/8" drill bit will have the best results. Drilling through both parts at the same time works very well.



7F6-1 Bottom Channel
7F2-3 Bottom Skin

Mark a centerline on 7F6-1 Bottom Channel. Drill a #40 hole at the centerline on the centerline. The Bottom Channel is positioned on the predrilled holes 357mm from the front of the Bottom Skin. Locate the center hole on the Bottom Skin and cleco the Channel through that hole.

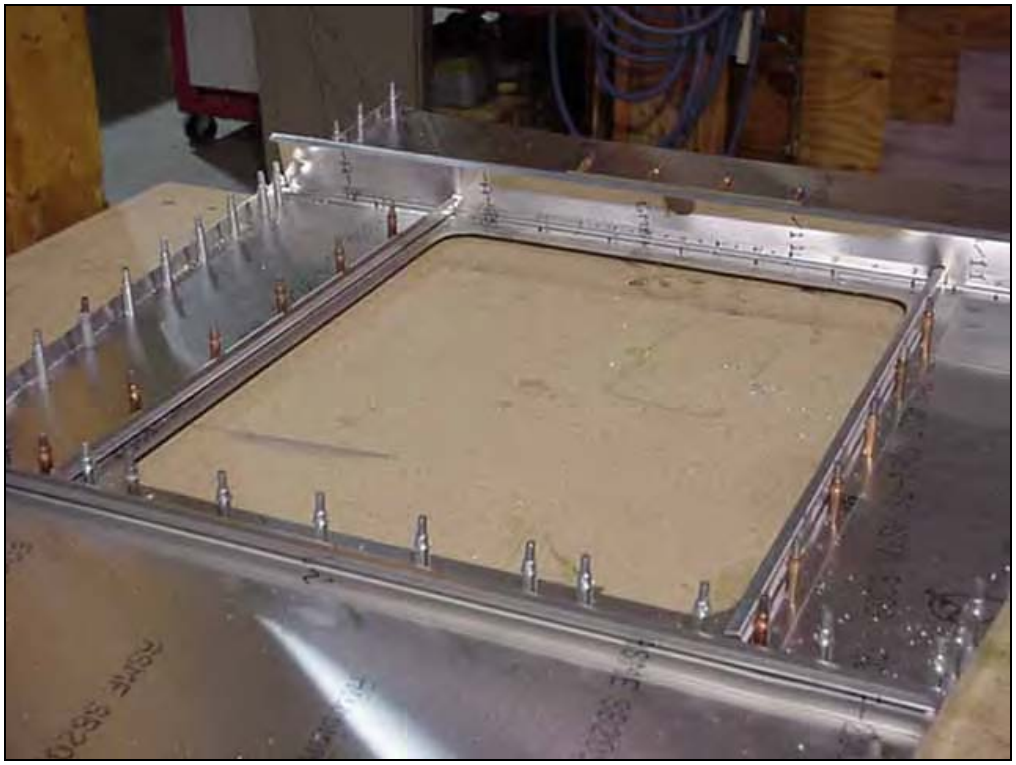


7F6-1 Bottom Channel
7F2-3 Bottom Skin

After the Channel is positioned in the center the rest of the holes can be drilled to the Channel.

'Z' Angle

On each side of the rear access hole there will be a 'Z' Angle. Drill and cleco the 'Z' to the Bottom Skin.



View of the two 'Z' in the Bottom Skin.

Short L angles
Ref. 7-F-6

A short ‘L’ Angle is positioned between the rear access hole and the edge of skin. Drill and cleco the ‘L’ to the skin.

The Rear Access Hole with ‘Z’ and ‘L’ angles cleco.

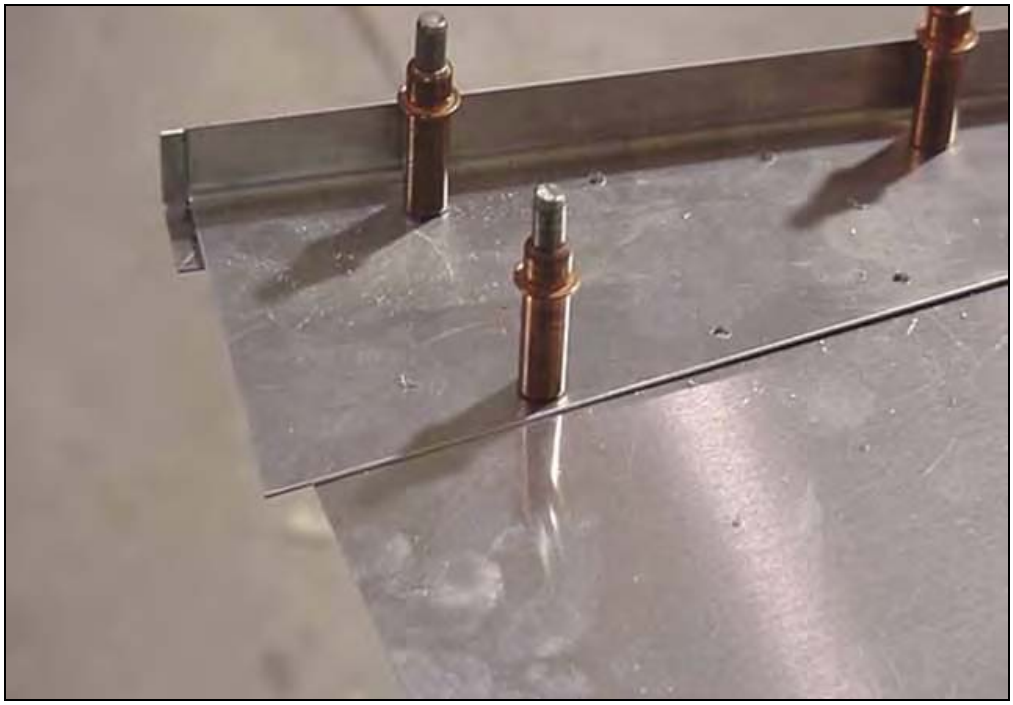
7F3-2 BOTTOM LONGERON DOUBLER

REFERENCE LINE: To prevent misalignment of the holes in the Longeron and bottom skin, first trace the edge of the Longeron on the underside of the bottom skin, then remove the Clecos to install the Doubler.

LAYOUT: Mark the rivet line 10mm along the inboard edge of 7F3-2

POSITION: The aft edge of the Doubler is even the front face of the Bottom Channel 7F6-1

Slide a piece of .016" material between the Doubler 7F3-2 and the Longeron 7F3-1 (to represent the Fuselage Side Skin 7F2-2. CHECK that the .016" material is not pushed down too far or it will interfere with the bend radius of the Longeron). CLAMP the Doubler 7F3-2 to the side flange of the Longeron. Check that I/B edge of the Longeron lines up with the reference line on the underside of the bottom skin, then clamp the Doubler to the skin.



NO RIVETS ZONE ALONG THE FRONT EDGE (drilled through 7F10-1)

Layout and drill the rivet line along the inboard edge of the Doubler. Check that the last rivet is not drilled into the side of the Longeron.

A5 PITCH 40

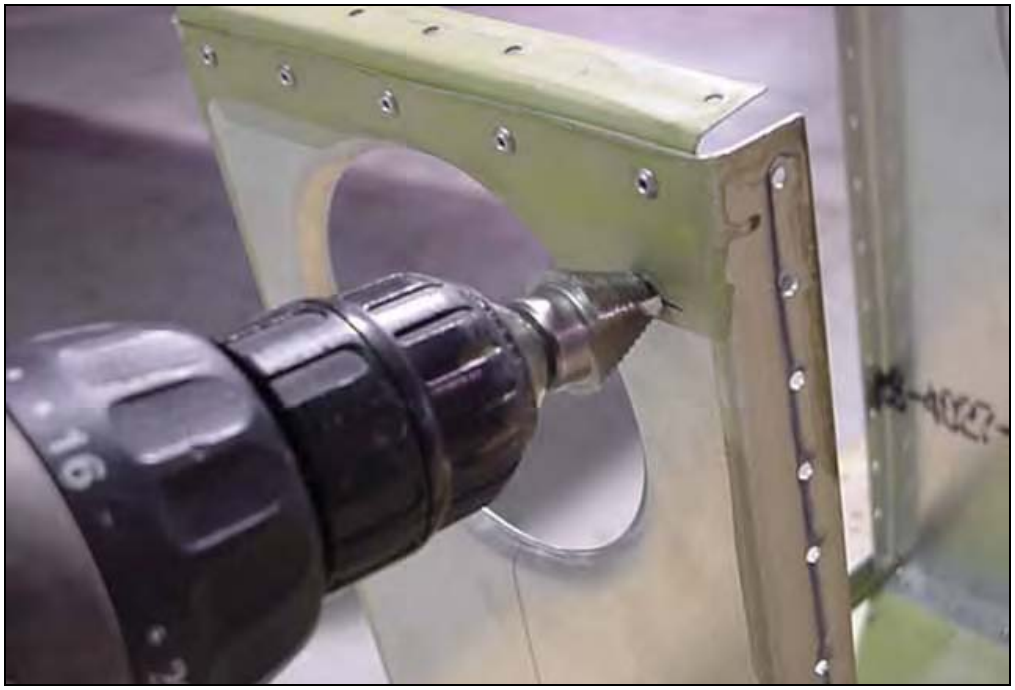
From the underside, back drill the holes through the Longeron.

8 RIVETS A5

The side flanges on 7F3-1 & 7F3-2 will be trimmed even with the front edge of the fuselage side skin. The Bottom of the Doubler 7F3-2 will be trimmed flush with the front edge of the bottom skin. Trimmed later Sec. 4 page 9)

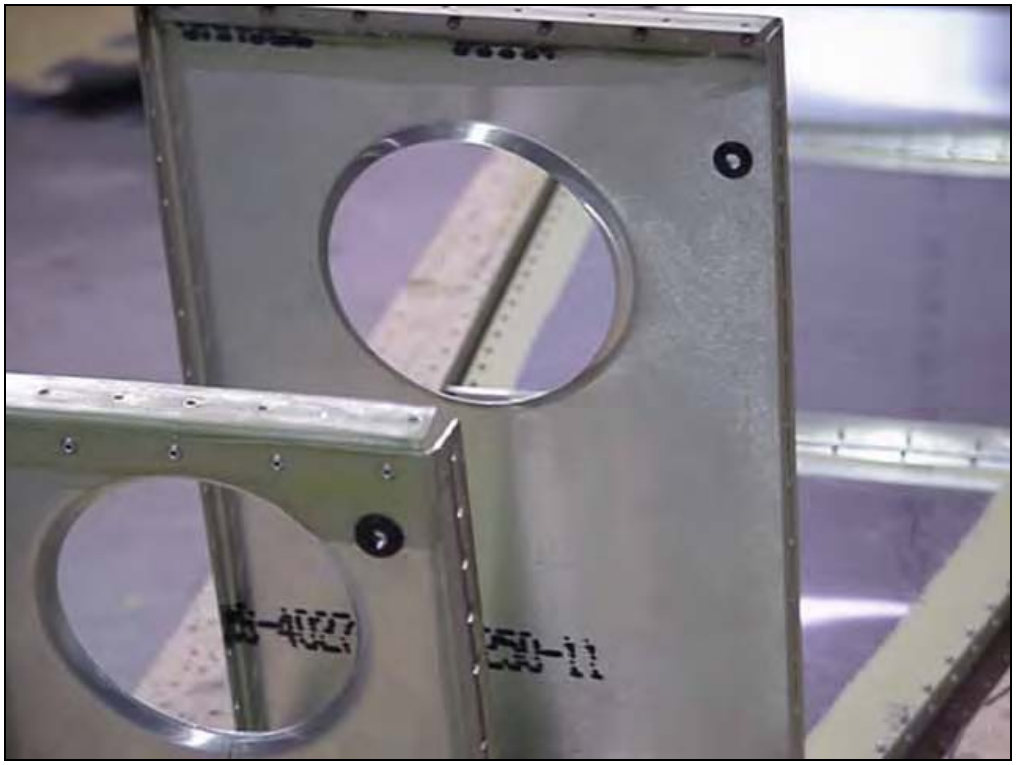
COMMENT: Don't rivet the Longerons to the Bottom Skin, it is easier to drill the Longerons to the Side Skin if they are not riveted to the Bottom Skin (see section 3, page 2)

Riveting is done after the Side Skins are drilled.



7F1-3 Rear Horizontal Tail Frame
7F1-4 Front Horizontal Tail Frame

A grommet is needed to run the wires through fuselage to the tail for the electric trim tab and tail light. For the grommet AN931-4-7 a 7/16" hole will need to be drilled. For the correct location of the hole refer to drawing 7-F-1



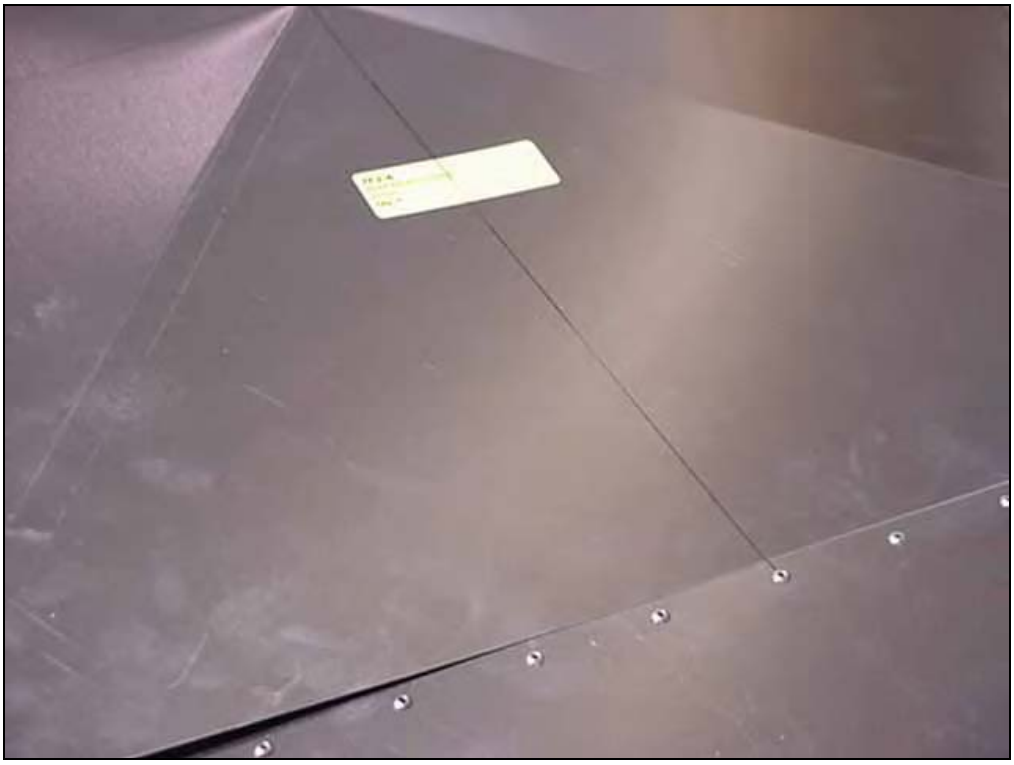
7F1-3 Rear Horizontal Tail Frame
7F1-4 Front Horizontal Tail Frame

7F2-4 Rear Access Cover

Laying out the Rear Access Cover.

7F2-4 Rear Access Cover

Position the Access Cover over the access hole.



7F2-4 Rear Access Cover

Mark a center on the Rear Access Cover and line it up on the Fuselage Bottom Skin.

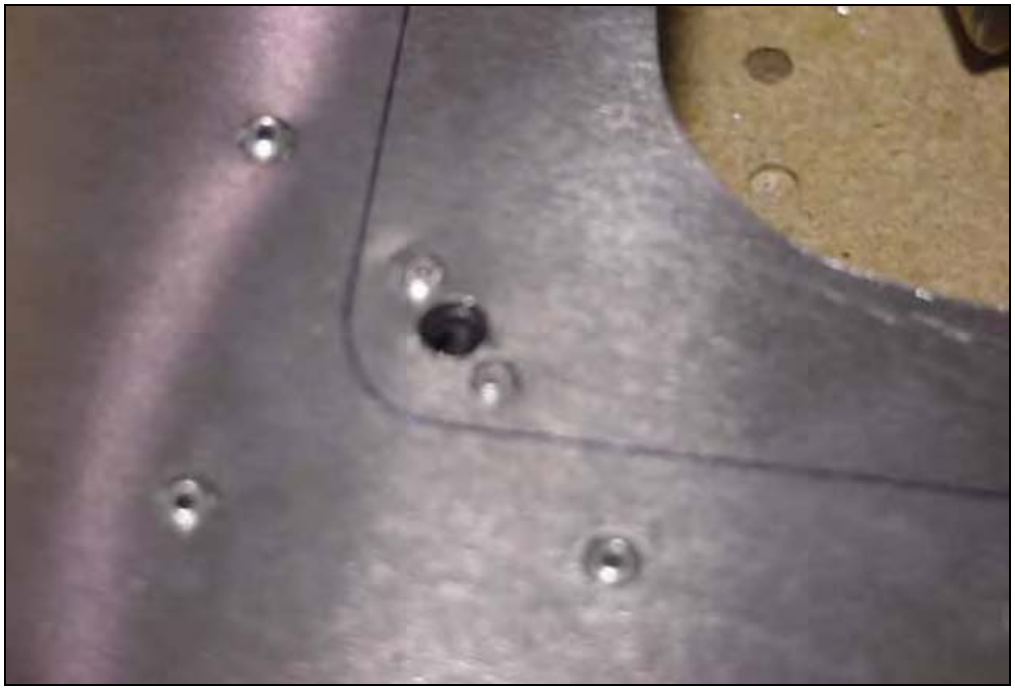
7F2-4 Rear Access Cover

Layout 12 evenly spaced holes and drill #40.

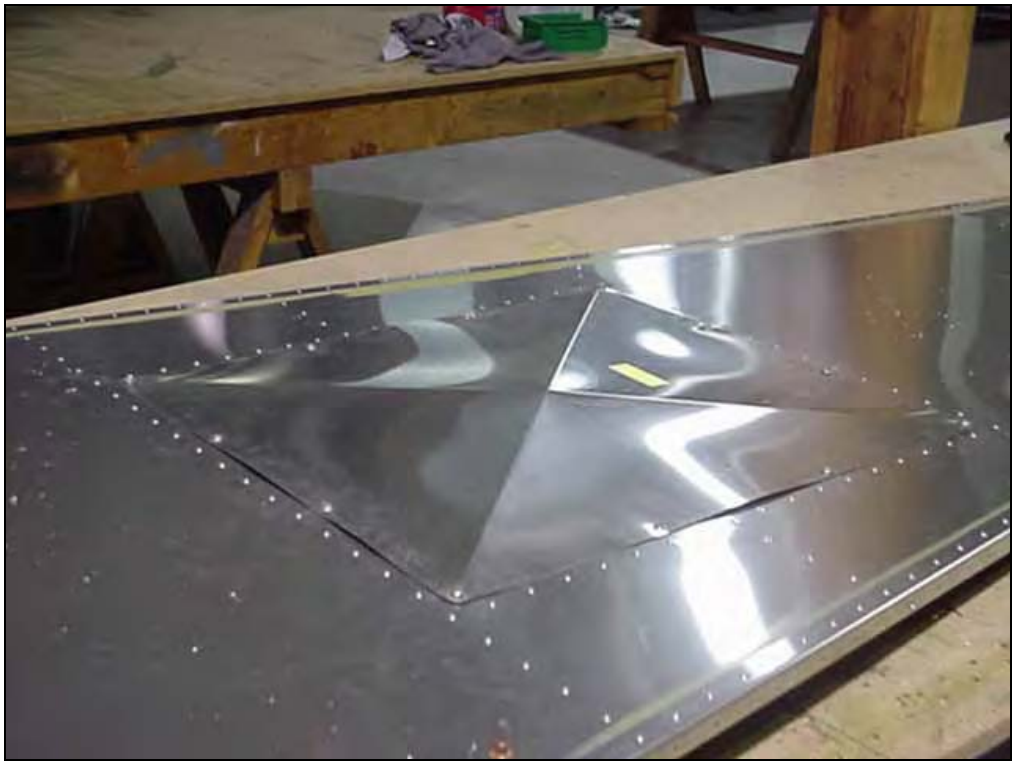
AN525-10R7 Screws
MS1075L3 Nut plates
A3 Blind Rivets

The Rear Access Cover can be riveted or screwed using nut plates.

Use the Nut Plates as a template to drill the two outside holes. Open the center hole to 1/4". The Nut Plates are installed on the inside of the Bottom Fuselage Skin.

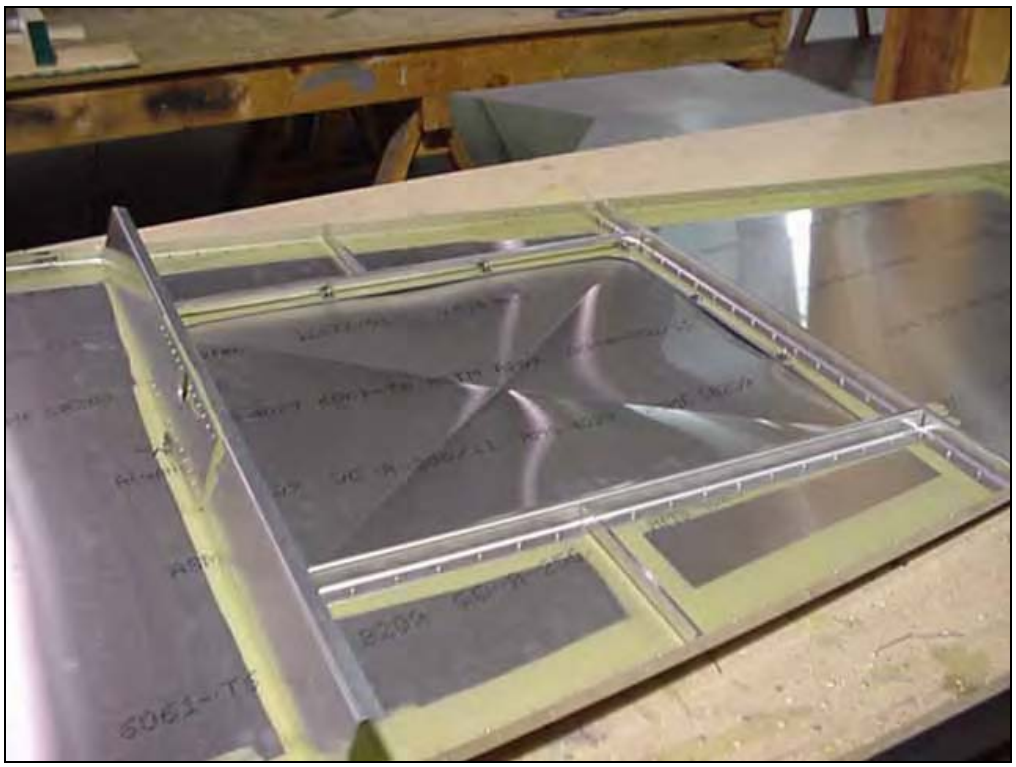


Rivet the Nut Plates to the bottom side using A3 rivets. Using an A4 rivet head on the hand riveter will work just fine.



7F2-4 Rear Access Cover

Open the holes in the Rear Access Cover to 3/16 for the AN525-10R7 Screws.



7F2-4 Rear Access Cover

Inside view