

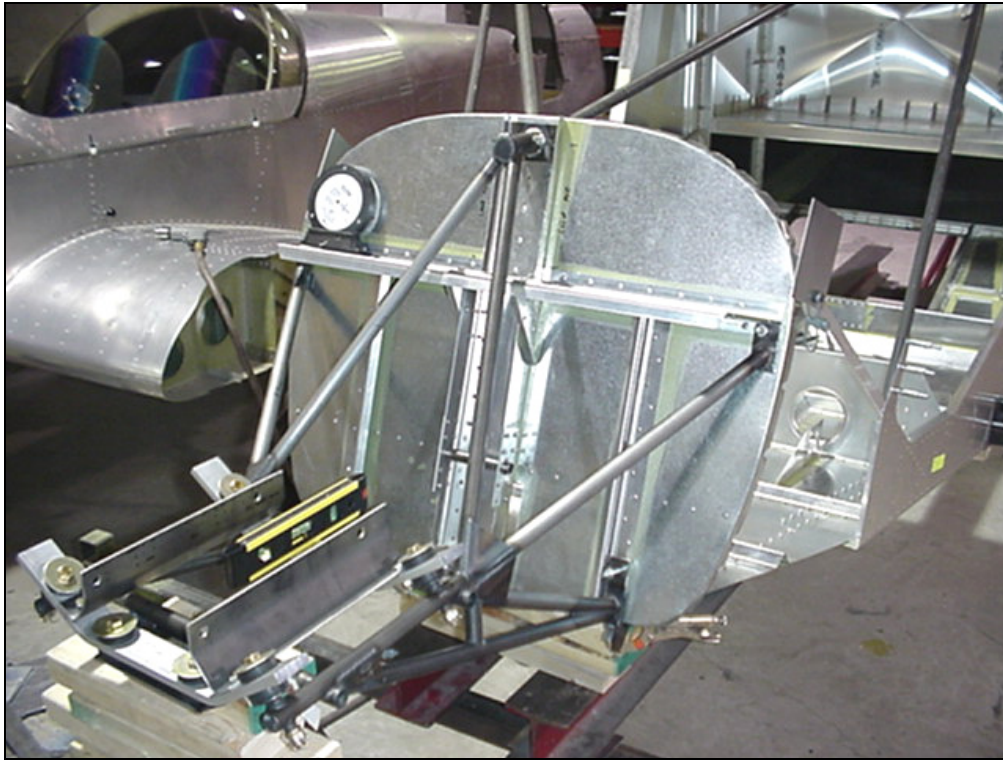
Wing Pick-Up Template

The correct length for the wing pick-up template is taken from the wing. How to measure the wing is described on drawing 7-F-15. It is best to make two of these templates.



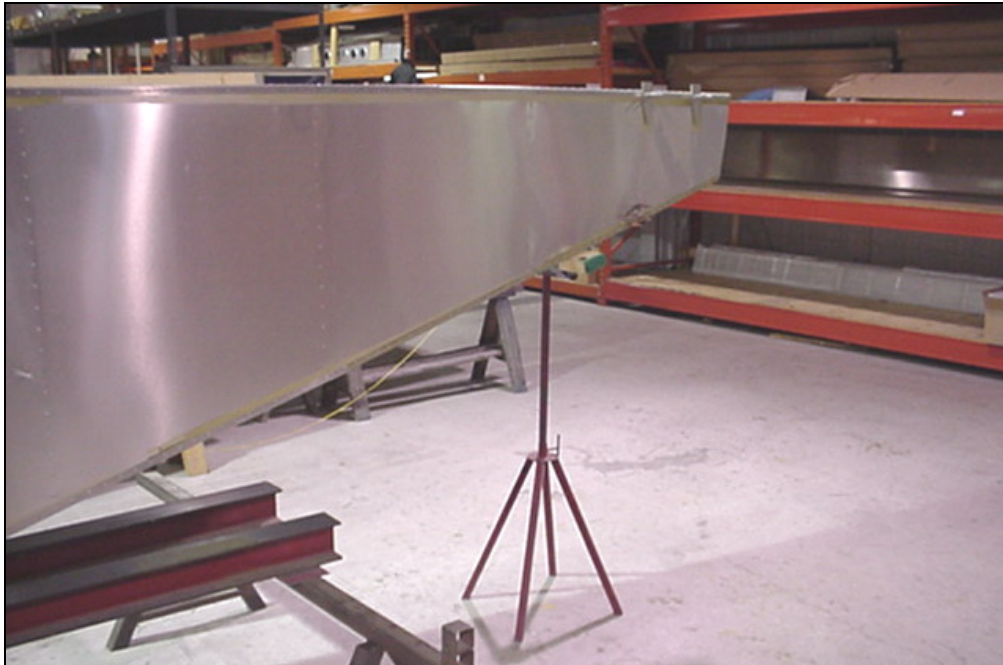
Wing Pick-up Template  
7F12-1 Upper Tubes

Position the wing pick-up template on the upper Cabin Frame. Once the correct distance is established install and drill the Upper Tubes (7F12-1) in the Cabin Frame. Drill and cleco.



**7E1-1R Engine Mount**

The Engine Mount is not needed but will be very helpful in jiggging the Fuselage. Make sure that the Upper Engine Mount boltholes are in the correct position for the Cabin Frame.



**Rear Fuselage**

Supporting the Rear Fuselage will need to be done.





Rear Fuselage

The Rear Fuselage will need to be leveled. Drawing 7-F-15, shows where the level reference line is located. The top of the Fuselage is not a straight line; it has a slight curve to it.



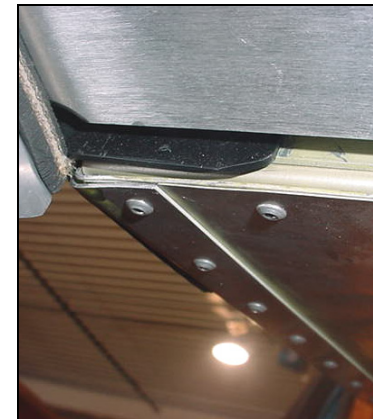
7F18-1 Cabin Frame

Sliding the Forward Fuselage into the Rear Fuselage is done at this stage. The Rear Upright on the Cabin Sides, 7F9-8, will need to be trimmed to the correct length. It may take a couple of tries.



**7F18-1 Cabin Frame**

- 1) Level the Rear Fuselage along Reference Line A-E
- 2) Set the overlap of the Cabin Sides, 7F9-1, with the Side Skin, 7F2-2
- 3) Cleco the Bottom Channel, 7F10-1, to the bottom Skin, 7F2-3
- 4) Position the wing pick-up template between 7F5-3SP and 7F18-1SP



Ref: 7-F-10  
The Bottom Longeron Doubler, 7F3-2, and the Bottom Skin, 7F2-2, overlap underneath the aft flange of the Bottom Channel, 7F10-1 (looking up at right side)

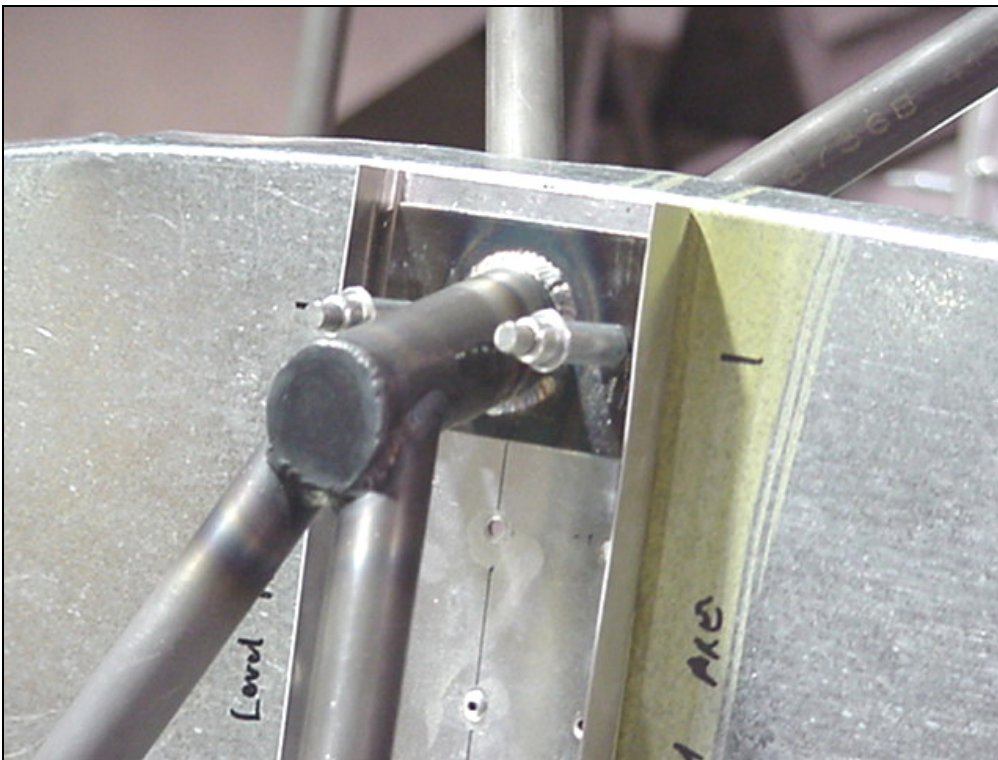
- 5) Level the Cabin Frame & the Upper Tubes, 7F12-1.
- 6) Check how the Firewall comes together with the Cabin Frame
- 7) Wait to drill the Cabin Frame through the Firewall until the Engine Mount is positioned.





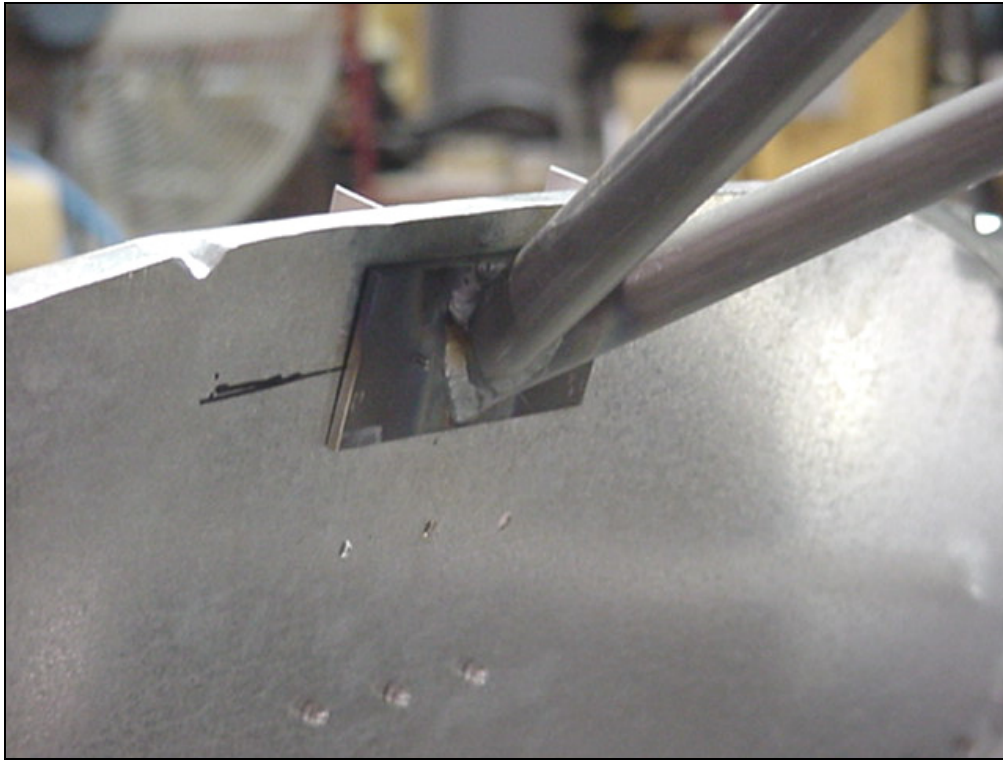
Inside view of right side:  
The Doubler, 7F3-2,  
overlaps on the underside  
of the aft flange of  
Channel 7F10-1.

Check to make sure that the Cabin Frame is centered to the Cabin Floor,  
with a plumb line.



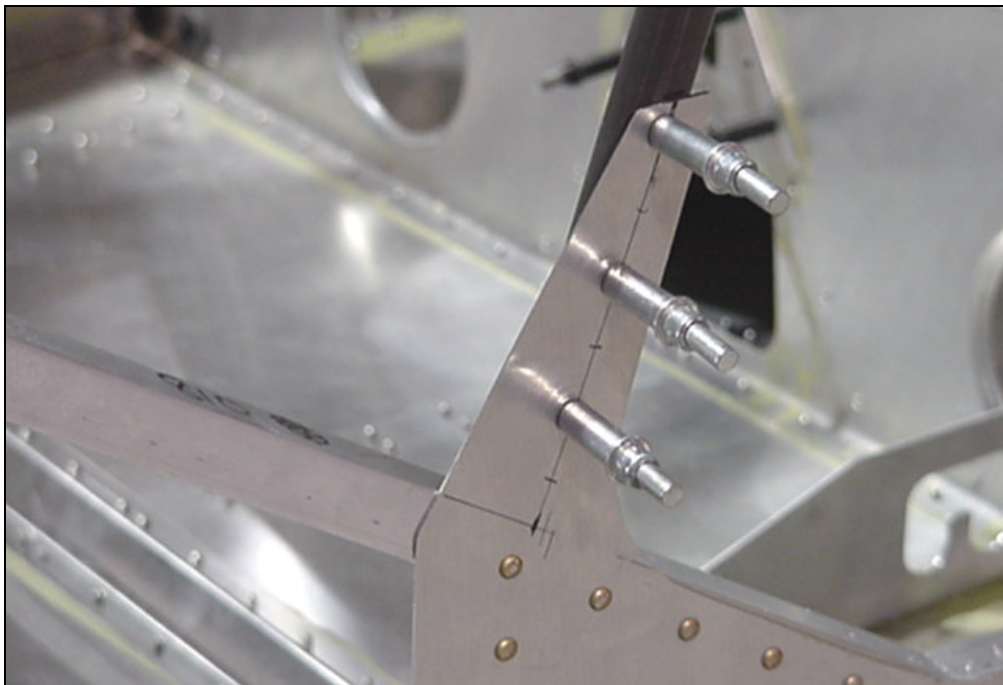
**7E1-1R Engine Mount**

If the Engine Mount is in position, then two upper bolt holes can be drilled.  
Make sure that the Engine Mount is level.



**7F18-1 Cabin Frame**

If the Engine Mount is not available, then only clamp the Cabin Frame to the Firewall. Marking a position line for the center of the Engine Mount is helpful to position the Cabin Frame. On Drawing 7-E-1, the center of the Upper Plate is 570mm from bottom of the Firewall.



**7F18-1 Cabin Frame  
7F9 Cabin Sides**

Layout the rivet line for the Cabin Frame to the Cabin Sides.





7F12-1 Upper Tubes

Check that the Upper Tubes, 7F12-1, are level.



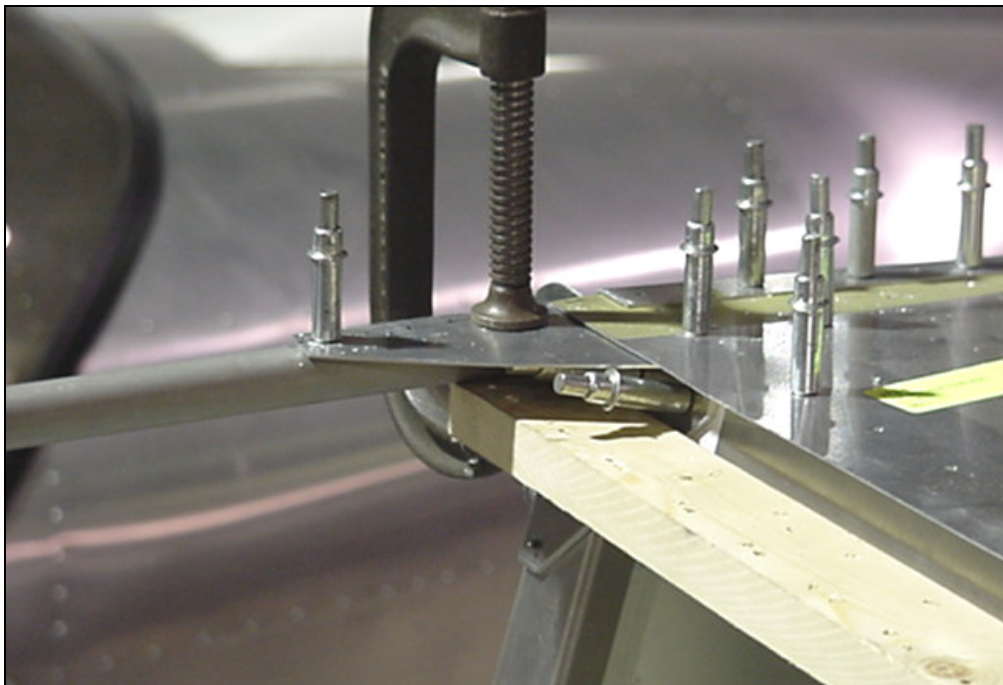
Wing Pick-up Template

Position the wing pick-up template between 7F5-3SP and 7F18-1SP.



**7F12-1 Upper Tubes  
7F3-3SP Top Longeron  
Gusset**

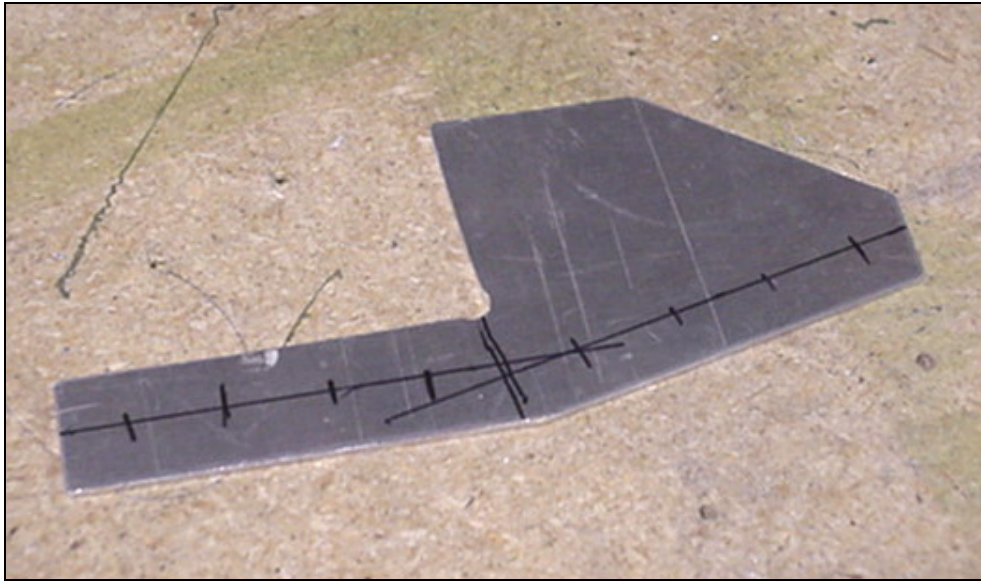
Layout the rivet pattern on the Top Longeron Gusset, 7F3-3SP. Make sure that the rivet line is in the center of the Upper Tubes, 7F12-1.



**7F18-1 Upper Tubes  
7F3-3SP Top Longeron  
Gusset**

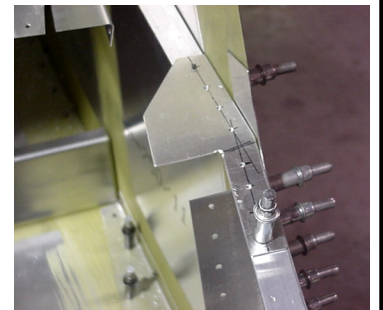
Using a "C" clamp with a 1 X 2 will hold the Upper Tubes 7F18-1 in place. Once the Fuselage has been jiggged to the drawing 7-F-15 it can be drilled and clecoed.





**7F13-1 Gusset**

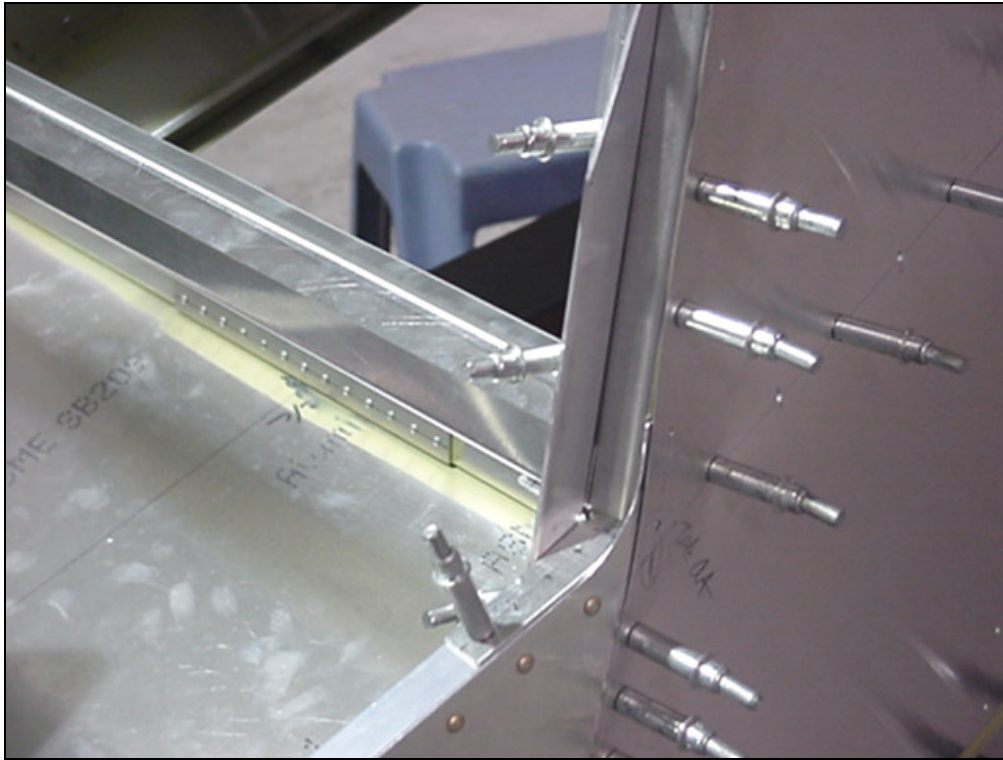
Cut out the Gusset, 7F13-1, and layout the rivet pattern on the Gusset.



Ref: 7-F-13  
Gusset 7F13-1 rivets to the top side of the Rear Stiffener, 7F9-8

**IMPORTANT:** Check the Doubler, 7F11-6, to the Upright, 7F11-5, and to the Side Channel, 7F5-2SP, before drilling the Gusset to the Cabin Side, 7F9-8

Trim the bottom corner of the Side Channel, 7F5-2SP, to make room for the Gusset, 7F13-1.  
Before drilling check for proper edge distance on the Gusset to the Rear Stiffener 7F9-8. Drill and Cleco.



Inside view looking out at right side

**7F13-1 Gusset**  
**7F11-6 Upright Doublers**

Photo of left side.  
To keep the sides of the fuselage straight, the Doubler, 7F11-6, is clecoed to the Fuselage before drilling the Gusset, 7F13-1



**7F6-5 Seat Back Channel**

The Seat Back Channel is positioned on top of the Gusset, 7F13-1. The front flange overlaps on the front side of the Side Channel, 7F5-2SP.  
4 RIVETS A5 (7F6-5 to Gusset 7F13-1).





**7F6-4 Seat Back  
7F11-4 Tunnel**

The Tunnel, 7F11-4, will need to be trimmed.



Drill and Cleco the Channel pick up (see right middle diagram on drawing 7-F-17) to the Channel Doubler, 7F10-2, and to the side of the Bottom Channel, 7F10-1.

**Holes I & J**

Clamp the outside surface of the Front Upright, 7F9-7, even with the firewall flange. Push the top of the cabin side against Seat Front, 7F11-1.

Drill and Cleco the ends of the Seat Front to the L angle on the Cabin Side.

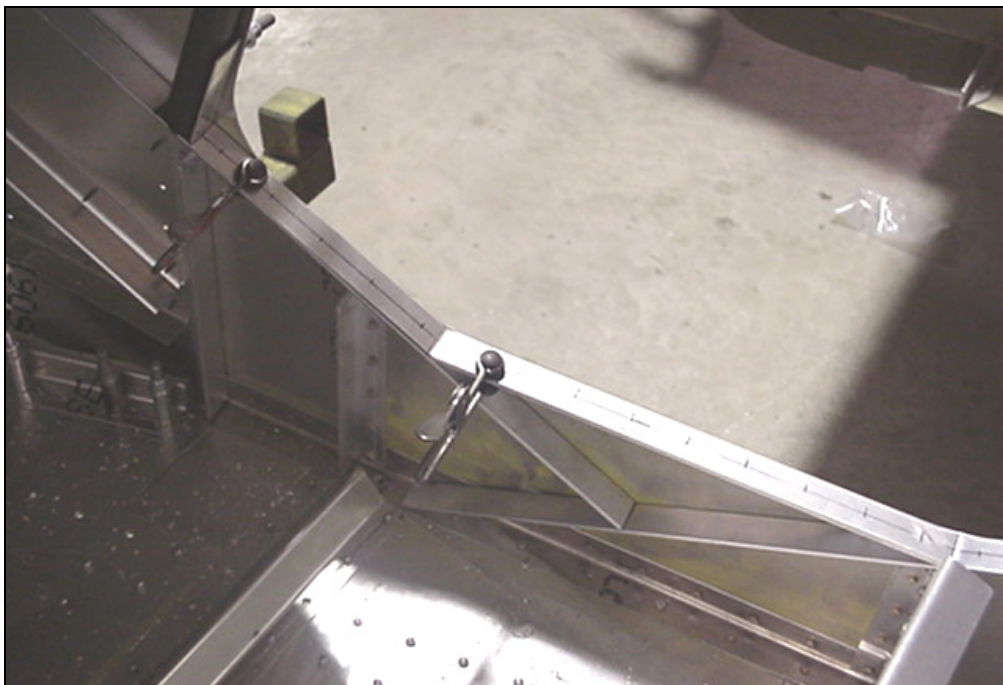
**5 RIVETS A5**

The Front and Rear Fuselage are now jugged.



**7F16-4 Doubler Strip**

The Doubler Strip will need to be bent. The first bend is 60mm at the front, and it just follows the Cabin Sides for the other bends.



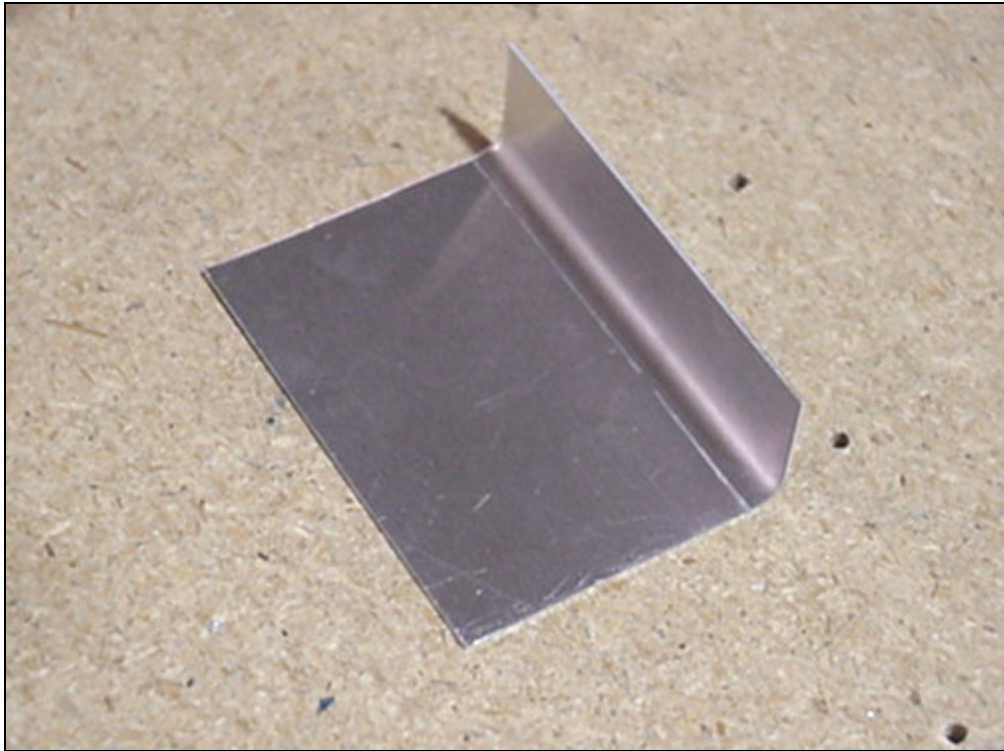
**7F16-4 Doubler Strip  
7F9 Cabin Sides**

**NO RIVET ZONE:** Plan for a no rivet zone for the installation of the Striker Plate, 7F15-3D.

Also plan for a no rivet zone on the aft portion of the Strip, 7F16-4, for the installation of the Gusset, 7F13-1

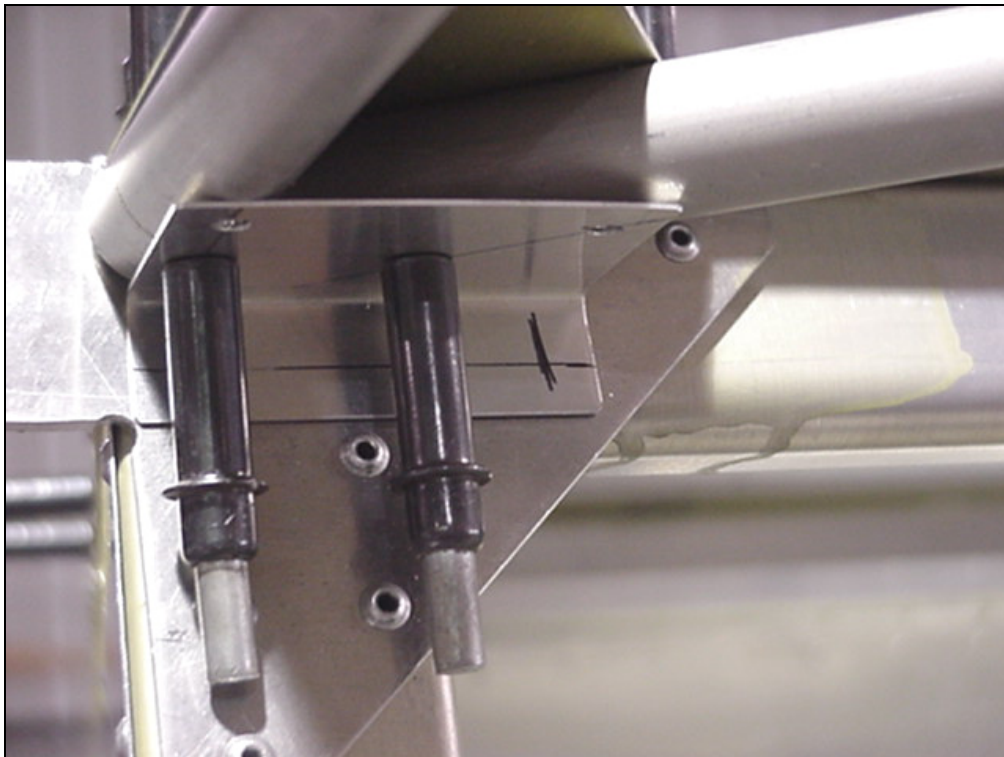
Layout the rivet line and clamp to the Cabin Sides. There are three A5 rivets in the Cabin Frame, 7F18-1SP, and the rest is pitch 30. Drill and Cleco.





**7F12-4 Gusset**

Cut two Gussets, 7F12-4.



**7F12-4 Gusset  
7F12-1 Upper Tubes**

Aircraft Right Sides View

There are three A5 rivets in 7F5-1 and two in the Upper Tubes and Diagonal Tubes. It may be necessary to pull the rivets from the backside of 7F5-1 for proper rivet placement.



View looking forwards at the left Gear Strut Fitting 7F17-1SP.

DRAIN HOLES: Don't forget to drill the drain holes in the Gear/Strut Fitting, #20 hole.  
Ref: 7-F-17 bottom left diagram.

Drill the rest of the holes in the Gear/Strut Fitting. Before install the Fuselage on the Gear, 7L2-1J, drill the two 5/16" for the Wing Struts, 7V10-1SP and 7V10-2SP, in the Strut Pickup (Ref top diagram on drawing 7-F-17) . Then trim and round off corners of the Strut Pickup.



View looking back at the left gear strut fitting 7F17-1SP.

Aircraft Left Side View

After painting the Gear Fitting, bolt it to the Fuselage using the proper bolts shown on 7-F-17.