

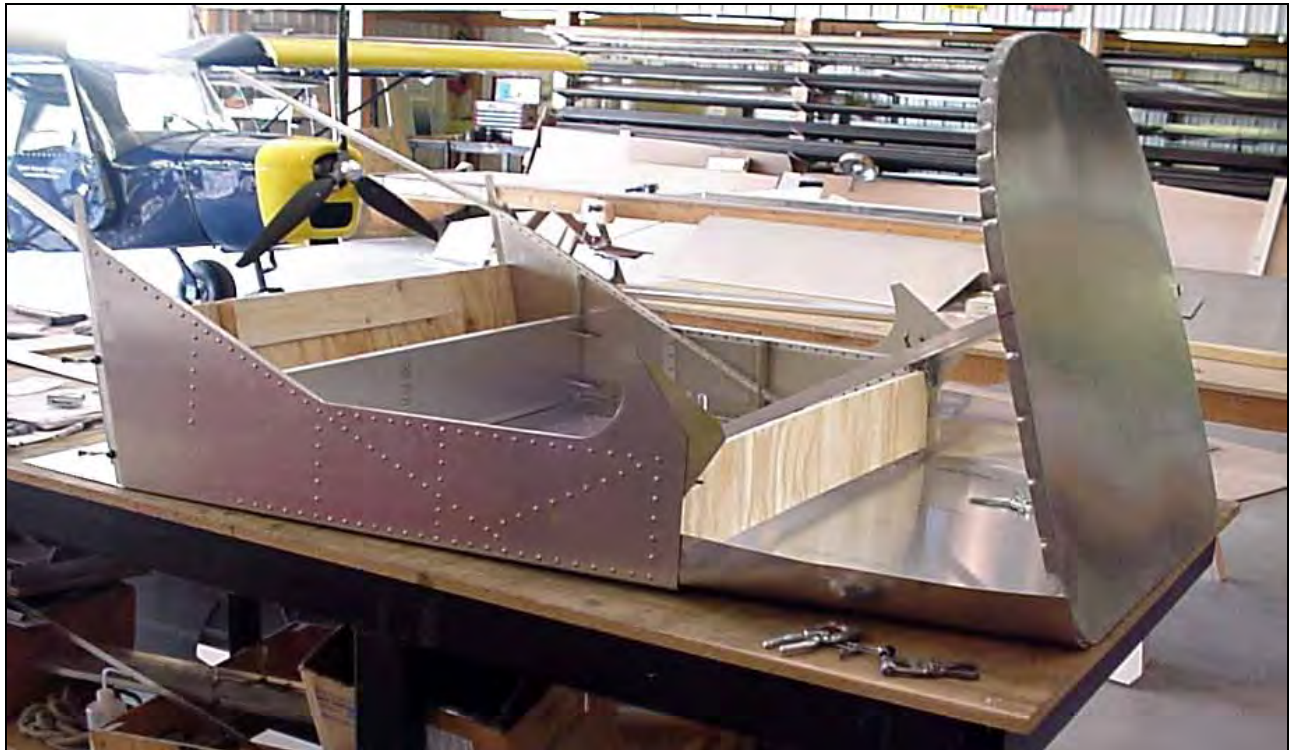
STOL CH 801 FORWARD FUSELAGE ASSEMBLY

SECTION 3 Floor Skin and Cabin Sides

Ref Dwg 8XF-2

Ref Dwg 8FF-1

Ref Dwg 8FF-2



CABIN FLOOR SKIN 8F8-7

REF CAD Drawing 8XF-2

There is a long cutout along the sides of the floor skin to make room for the corner angle riveted along the inside of the cabin side assembly.

Ref line: the aft corner of the cutout is 1517mm from the front edge of the skin.

The sides in front of the cutout are bent at 90 degrees to fit inside the cabin side assemblies.



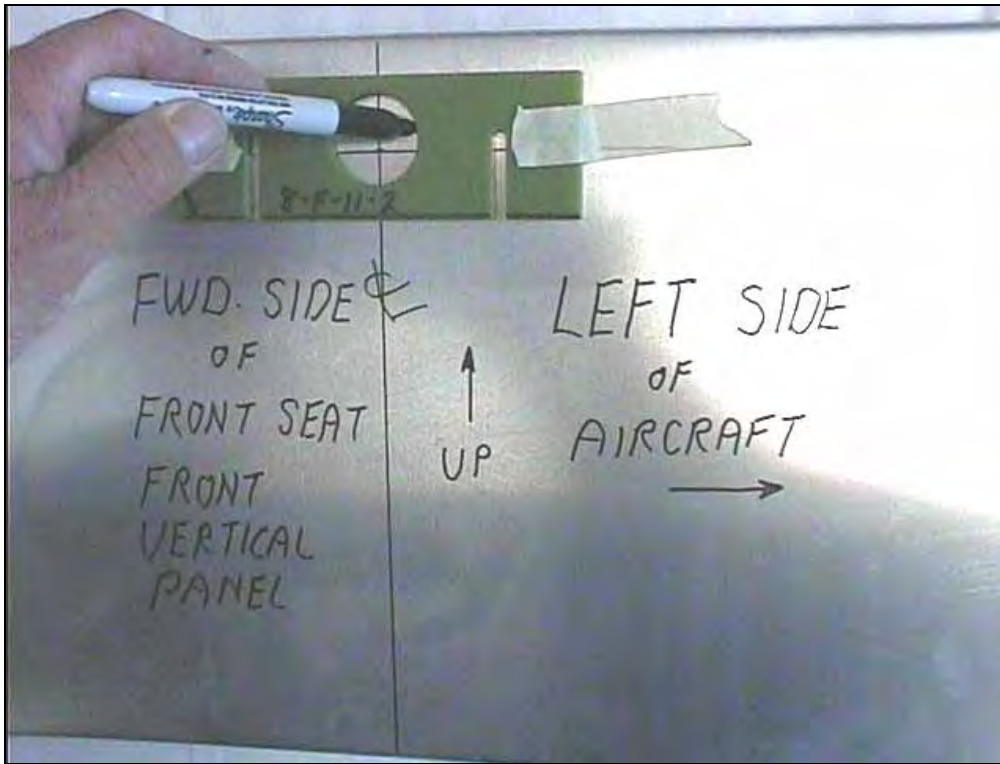
**REAR SEAT FORWARD
BEARING
8F11-4**

**FRONT SEAT REAR
BEARING
8F11-3**

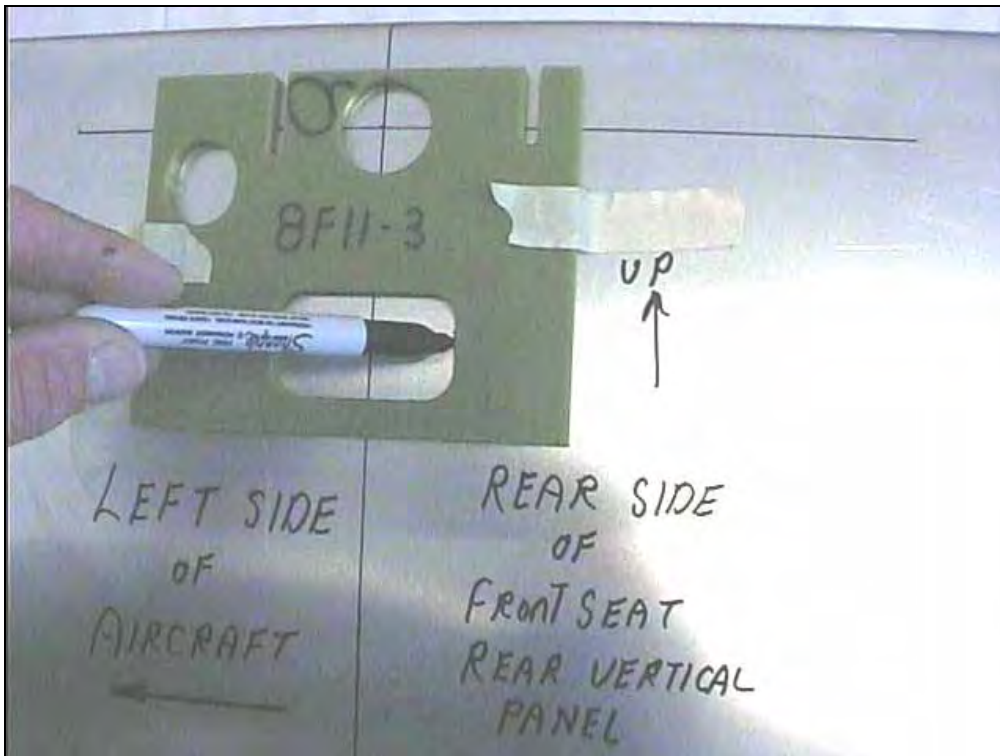
**FRONT SEAT
FORWARD BEARING
8F11-2**

Locate each bearing with the large round hole positioned on the centerlines established on the vertical seat panels from dwg 8FF-2.
Hold them in place with masking tape.

See next three photos for positioning details.



Position bearing 8F11-2 as shown and trace the cut outs onto the Front Seat Front Panel 8F11-1.
 Drill mounting holes at this time as per dwg 8FF-2 and Cleco.



Position bearing 8F11-3 as shown and trace the cut outs onto Front Seat Rear Panel 8F11-11. Do not drill the mounting holes for this part at this time.



Position the bearing 8C11-4 as shown and secure it with masking tape. Trace all openings onto the Rear Seat Forward Channel 8F11-7. Drill mounting holes as per dwg 8FF-2 and cleco.



Remove all the bearings and drill and file the openings for all three bearings. When cutting the holes for the control cables, (the long slots) simply drill a 3/4" - 7/8" diameter hole on center of the base of the slot. It is not desirable to cut the entire slot length.



CABIN FLOOR 8F8-7

Mark the aircraft center line on both sides of the skin. Check that the front edge of the floor skin is square to the center line.

Ref. Drawing 8XF-2

REFERENCE LINE:

Along the aircraft center line, set a line 1517mm from the front edge of the floor skin.

IMPORTANT:

The reference line is the inside corner of the side cutout.

CHECK: The length of the cutout is 955mm from the reference line. If adjustments are required to the traced outline, make up the difference at the front.

Reminder: Use a soft felt marker; never use a scribe or sharp object to layout any lines.



Photo of the Zenith trace template to mark the skin as supplied.

CHECK: length of the cutout is the same length as the corner angle riveted inside the cabin side assembly 8F9-S/A

Make a cutout along the sides of the floor skin to make room for the cabin side assembly 8F9-S/A.

IMPORTANT: Drill #20 holes in the corner or file a **corner relief hole** in the inside corners of the cutouts.



The firewall overhangs 2 - 3mm past the front edge of the floor skin.

Drill 2 pilot holes on each side of center line in the area between the Channel 8F7-2 and the Stiffeners 8F7-5

Place the firewall assembly along the front edge of the floor skin: the firewall is 2 to 3mm past the front edge of the skin.

Position by lining up the centerlines.



Mark the beginning of the curvature of the firewall on the floor skin

Remove the firewall to bend the sides of the floor skin.



Along the front cutout layout a 22mm line.

NOTE: 22mm is the width of the corner angle riveted inside the cabin side assemblies.

Draw a straight line from beginning of side curvature of the firewall to the 22mm line. (Mark line on top and bottom side)

Place the skin on the edge of the bench or other suitable support along the straight line and make a sharp bend (bend radius = 1/8") to fit inside the front of the cabin side assembly 8F9-S/A. 90 degree bend in the corner.



Photo of right side illustrates the 90 degree bend at the front end of the cutout in the floor skin.

CHECK:
The width of the skin at the bend outside to outside = 1026mm
This will set the distance across the front of the cabin sides.

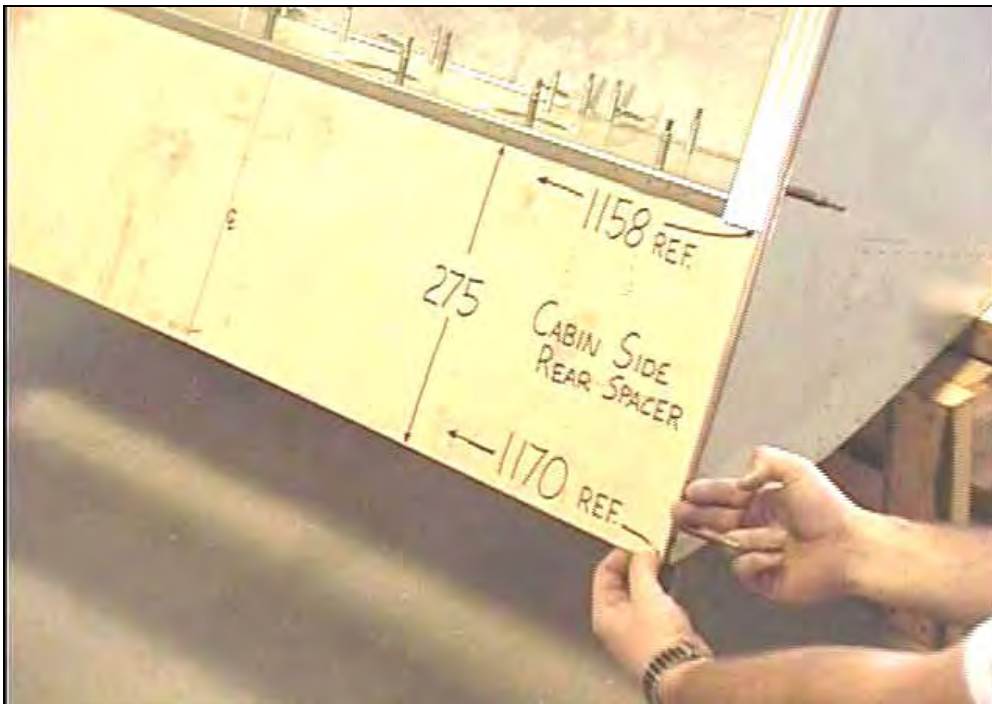
Top side of the bend.
Note the corner relief hole in the inside corner of the cutout.



Bend the front of the skin to go around the sides of the firewall.

Position a pipe (approximate diameter = 3 inches) along the straight line. With one hand on the pipe, grab the edge of the skin and draw it over the pipe gently to roll the front edge of the skin up.

Both edges are bent up. Place the skin aside for now.



REAR FUSELAGE TEMPLATE

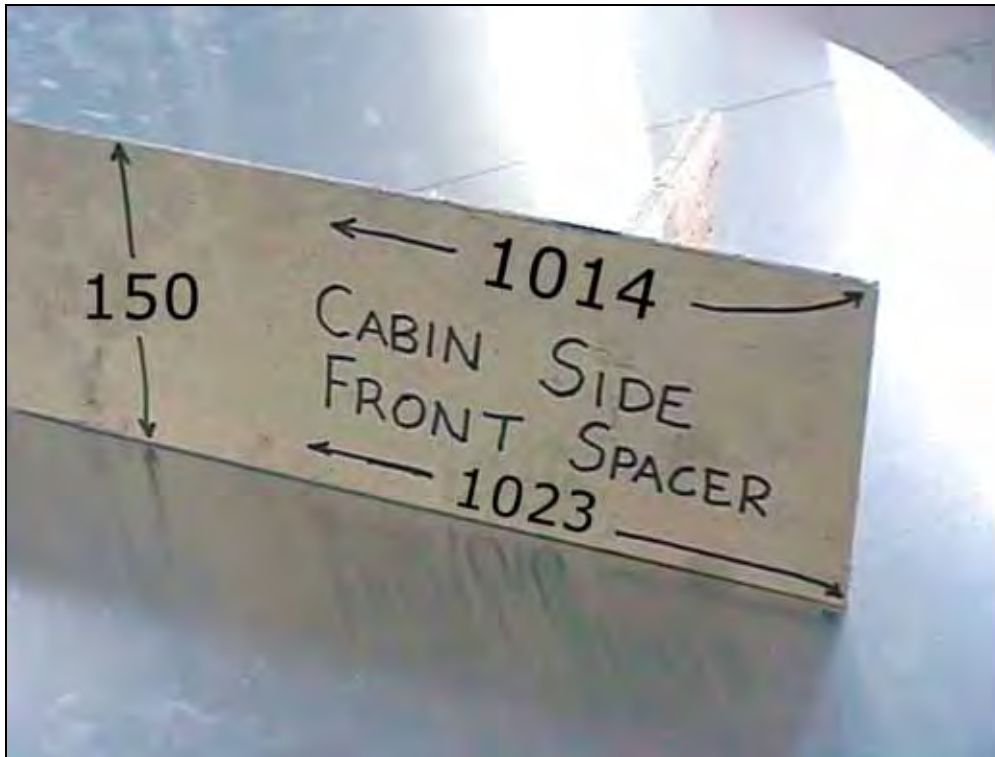
Make a plywood template of the opening of the rear fuselage.

Template is 275mm tall, 1170 across the bottom and 1158 across the top.

Note: If the fuselage width is different, make template to fit fuselage.

Checking the template across the bottom of the fuselage.

The template is not installed to the rear fuselage.



Make forward cabin template to the dimension shown.

Refer to drawing 8FF-1.

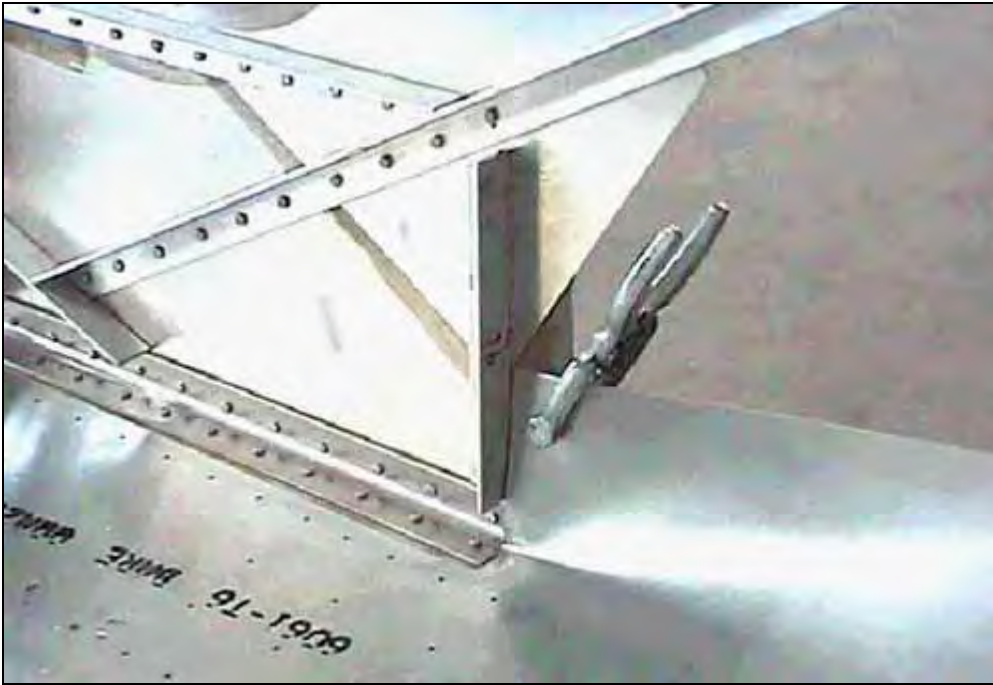
This template is not used to set the width of the fuselage it is cut undersize. The bottom width of the fuselage is set by the position of the cabin side to the Forward Fuselage Cabin Floor 8F8-7



CABIN SIDE ASSEMBLY 8F9-S/A

Photo of left side assembly, looking at the outboard side.

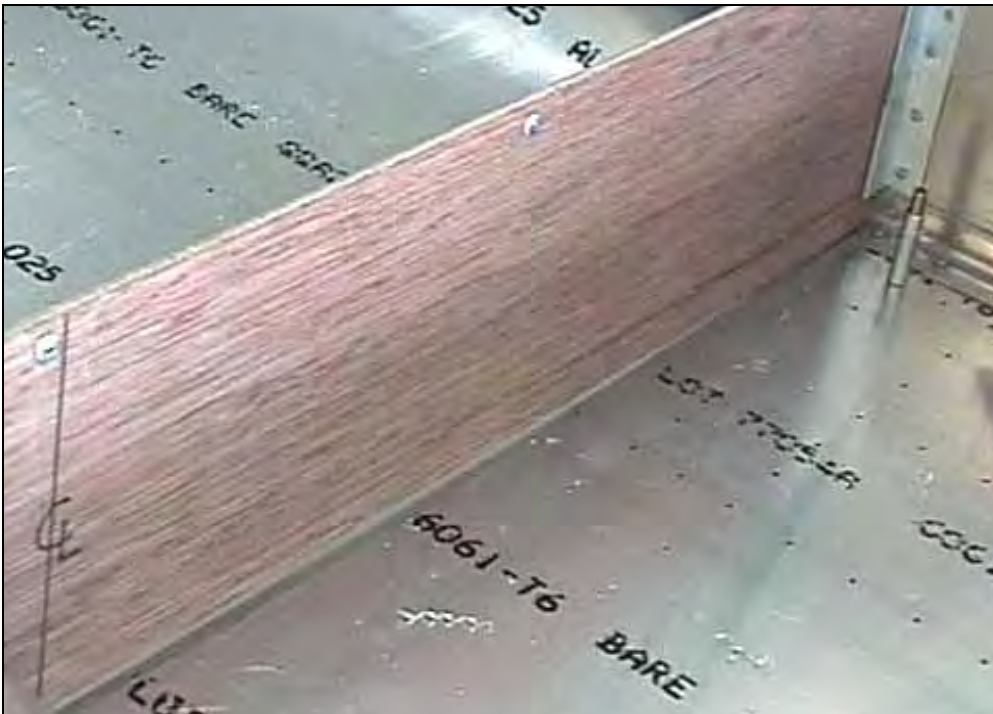
Separate the left and right assemblies; the bent flange is along the rear.



The floor skin overlaps on top of the cabin sides: slide the lower portion of the cabin side under the floor skin.

Install the cabin side assemblies to the floor skin.

Clamp the sides of the floor skin to the cabin sides to keep the bent corner down.



The top of the template is even with the top of the extrusion solid riveted on the cabin side assembly (the template is raised off the floor skin)

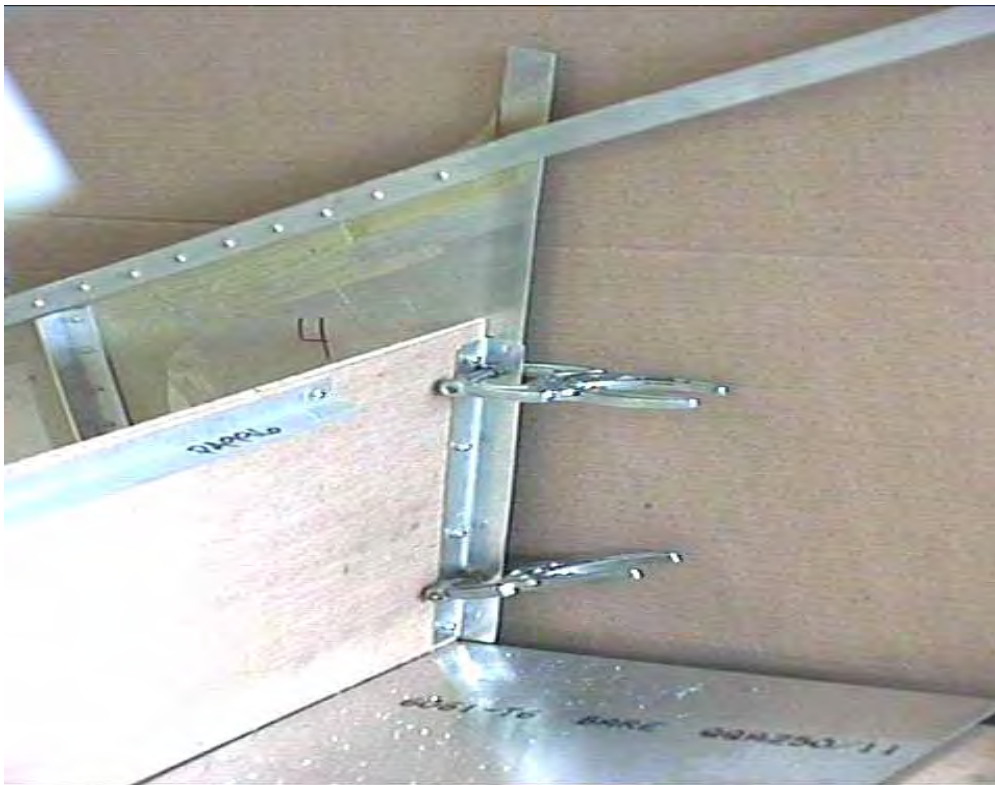
Viewed from the back looking forward.

Install the forward template board and clamp it to the cabin sides at the forward most upright. Shift the sides as required in order to position the center of the board on the center of the cabin floor.



Keep the centers aligned.

Position the rear template on center and clamp it to the rear portion of the cabin sides. Drill and cleco one hole on the left and right sides of the floor skin close to this template. Drill only those two holes at this time.



Note that the template is positioned on the same angle as the rear edge of the cabin sides and immediately aft of the cabin.

A small piece of extrusion, std "L" or wood block attached to the rear template will facilitate clamping to the cabin sides.



Looking ahead to see how the pre-drilled holes in the floor skin for the Seat Channels will line up with the 2nd and 4th vertical angles solid riveted on the cabin side assembly.

Seat channel will overlap on the front side of the vertical angles.



CHECK
The predrilled holes in the floor skin for the Front Seat Channel 8F11-1 should be in line with the vertical rivet lines in the bent angle riveted to the cabin side assembly

The rivet line for the Rear Seat Channel 8F11-11 is 20mm forwards of the last vertical extrusion solid riveted to the cabin side.

The wood block represents the web of the Front Seat Channel 8F11-1 (10mm forward of the predilled holes in the floor skin in line with the flange of the vertical angle solid riveted on the cabin side assembly)



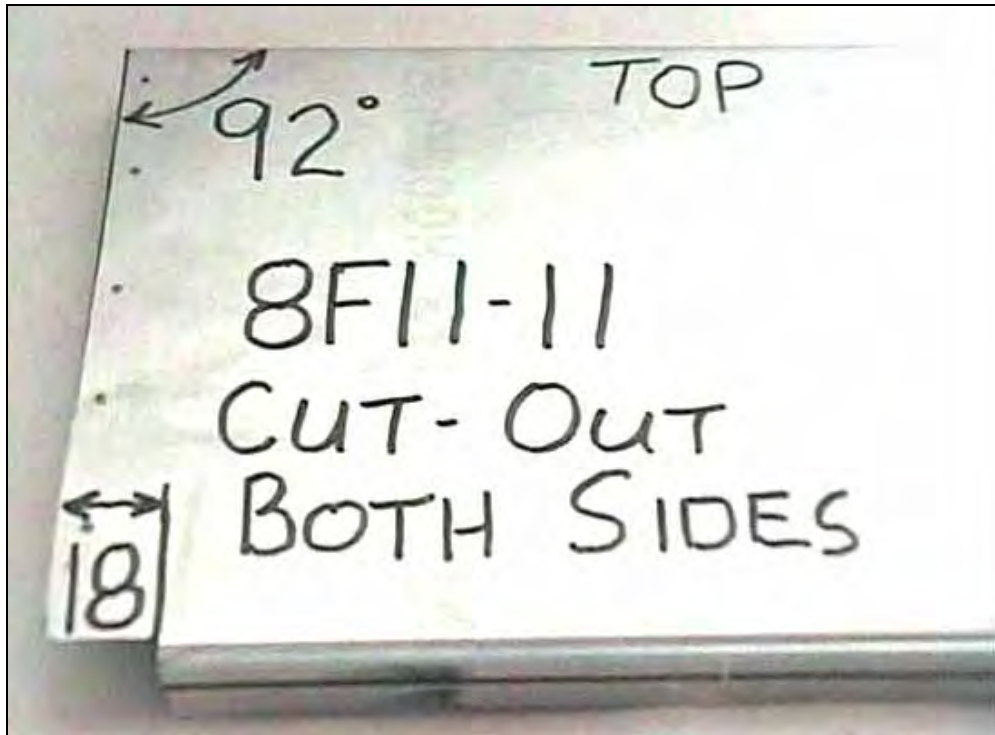
CHECK :
That the aft corner of the corner angle riveted inside the cabin side is on the 1517mm reference line.

Drill & Cleco every 5th hole into the floor / cabin sides



The corner will be visible from the outside. The same procedure is also used for the side skin 8F14-3 (push the skin down with a wood block before drilling)

Use a block of wood to press the floor skin tightly to the cabin side at the forward corner of each cabin side. Drill one rivet hole into the skin from the under side.



**FRONT SEAT
REAR PANEL
8F11-11**

Rear Channel (front seat) is already supplied with the ends cut on an angle. Distance across the top is 1128 mm. and 1142 mm. along the bottom.

The next step is to install the front seat rear panel.

Cut off the bottom flange on 18mm to clear the angle riveted at the bottom of the cabin sides.



“Rear seat panel” refers to the rear panel of the front seat.

This panel fits on the forward side of the extruded angle riveted to the cabin sides.

CHECK: Leave approximately 1mm clearance between the ends of the Channel and the Cabin Side skin to prevent chaffing.

Clamp the rear seat panel to the cabin sides.

Drill five evenly spaced holes to attach either end of the panel to the cabin sides.



**REAR PANEL
8F11-11**