STOL CH 801
FUSELAGE CABIN ASSEMBLY

SECTION 3
Cabin Frame
Ref Dwg 8FC-3

- The Top of the Cabin Frame is level
- The distance between the front and rear wing attachment to fit the wings

CABIN FRAME
8F18-1

The TOP TUBES have welded plates to attach the door hinge.
The SIDE TUBES have the cabin access handles.

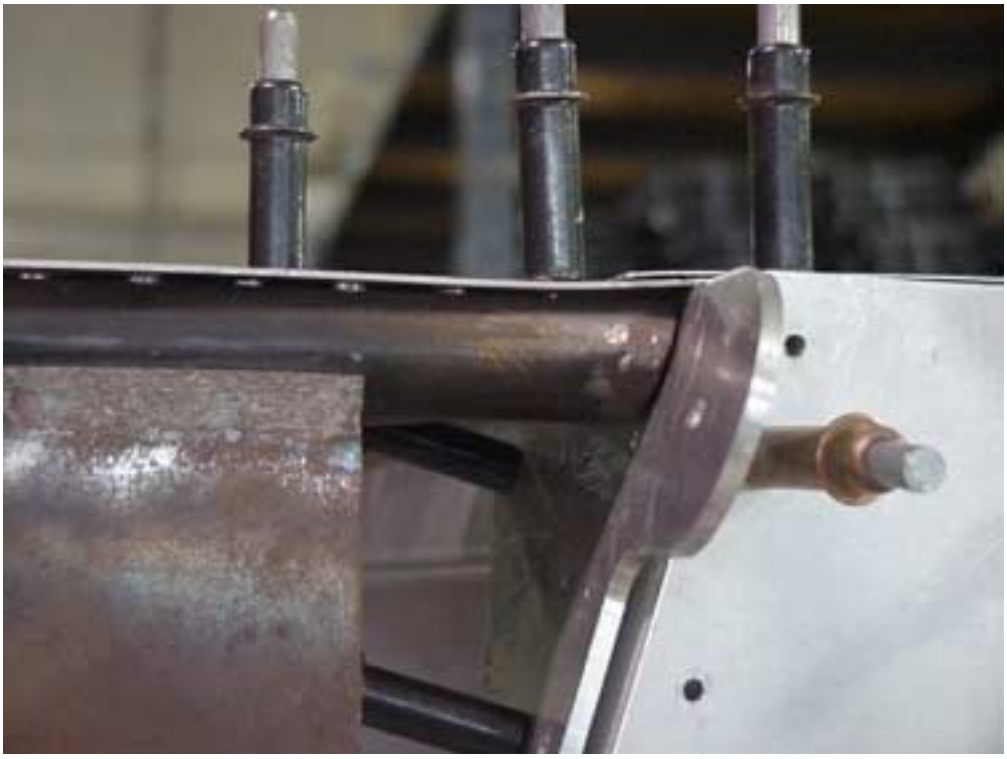
Note: The aft end of the cross diagonal welded is not welded to the top tube.

WING PICK UP TEMPLATE

REF CAD DRAWING 8FC-4

Make the template from a 1 X 2 or 2 X 4 Board.

The purpose of the Wing pick up template is to set the distance between the front and rear wing attachment on the fuselage to match the wings.



The ends of the side tubes are cut on an angle.

Use a hacksaw or cut off wheel to trim the ends of the top tubes.

Cut the length of the top tube.
Position the front of the wing pick up template against the backside of the U fitting welded on the cabin frame, trace the aft edge of the template on the side of the tube.

Position the cabin frame on the fuselage:
The top tubes go underneath the Gusset 8F3-3

IMPORTANT: the side tubes will require some trimming; the supplied length on the side tubes does not set the height of the cabin frame.

If the cabin frame is not level, draw the ends of the side tubes together to fit along the inside cabin side. Tracing the top of the cabin side when the cabin frame is level will set the length and bottom angle.

SUGGESTION: Keep the clamp on the side of the side tube (photo shows the clamp on the outside). With the clamp on the inside it will not interfere with the wing pick up template.

Temporarily clamp the cabin frame in position

On the firewall, mark a line 325mm up from the center of the middle bolts for the engine mount. (445mm between the middle bolts and the bottom bolts, 660mm between left and right middle bolts, 565mm between the bottom bolt) at this point they are only drilled with pilot holes.

If necessary it is acceptable to insert a shim between the firewall and the cabin frame forward flange.

Clamp the front cabin frame to the firewall.

To temporarily secure the cabin frame to the firewall: it is permissible to drill one 5/32 hole in the area directly above the intersection above the two tubes. Center the hole in this area and install a 5/32 cleco. Do not drill any other holes in the attachment flange at this time. The holes for the two AN4-6A bolts are drilled when the engine mount is installed.

Use the template to accurately position the cabin frame in it's fore / aft location.

Front attachment

The top edge of the template is placed flush with the top of the attachment point.
The board on top of the template allows clamping to the cabin frame.

The top edge of the template is also flush with the top of the bracket.

Detail of rear attachment

First level across the top of the cabin frame between the left and right wing attachment. Raise or lower one side as required.

Level across the front.

Level the side tubes raise or lower both the left and right side tube (to keep the front of the cabin frame level).

Check left and right side.

It is also a good idea to check for level along the aircraft centerline: lay straight board across the cabin frame and fuselage.

Level the sides

Clamp the side tubes of the cabin frame to the cabin sides.

Use the wing pick up template to check the fore & aft positioned, check that the cabin frame is level.

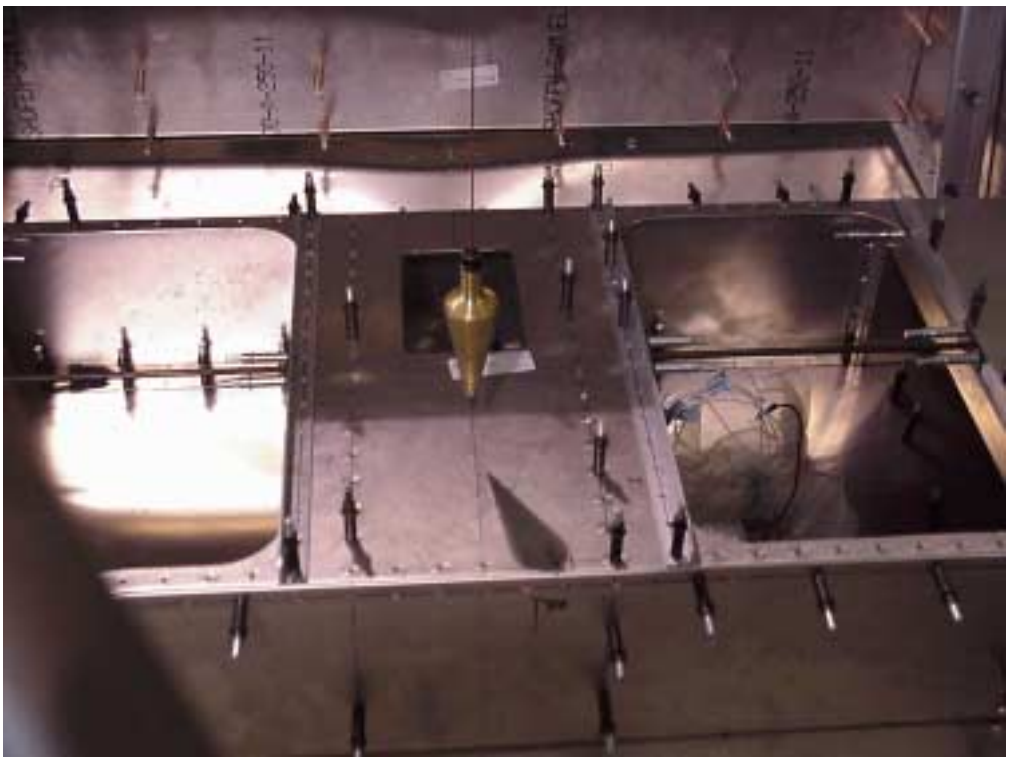
With the cabin frame level, mark the topside of the front longerons of the cabin sides on the welded side tubes on the cabin frame.
Trim the length of the side tubes.
Remove the cabin frame and cut the side tubes to length.

Use a plumb bob to check alignment.

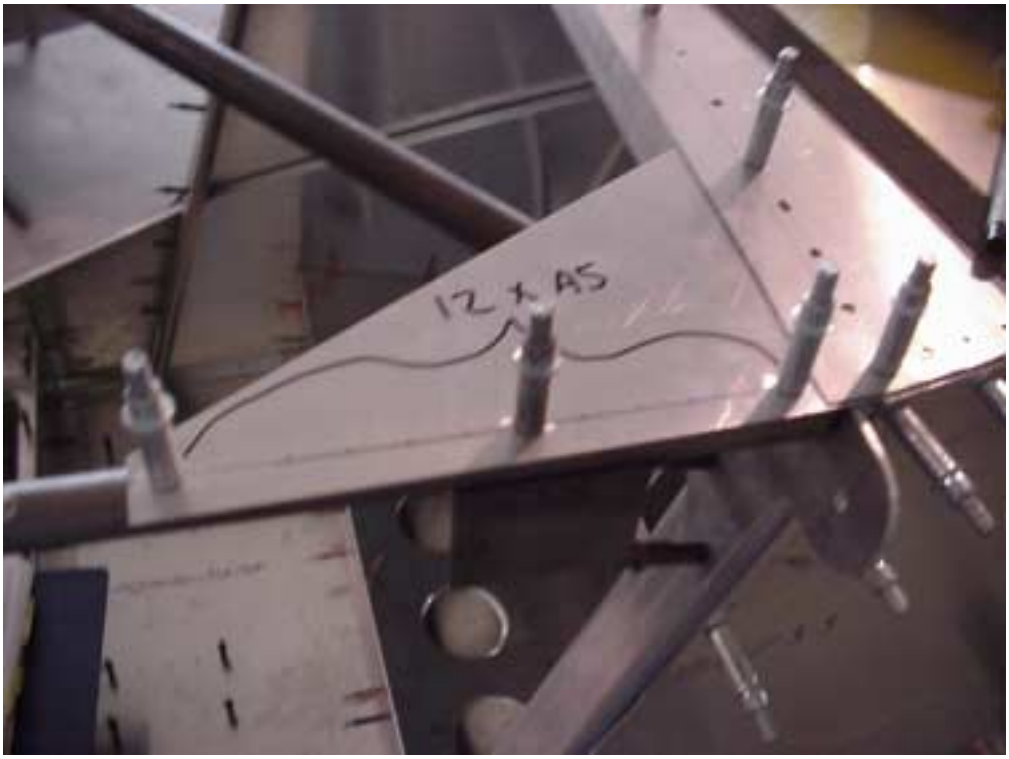
Locate the middle of the cabin frame.

Check that the middle of the cabin frame is on the aircraft centerline.

Check alignment of centerlines.

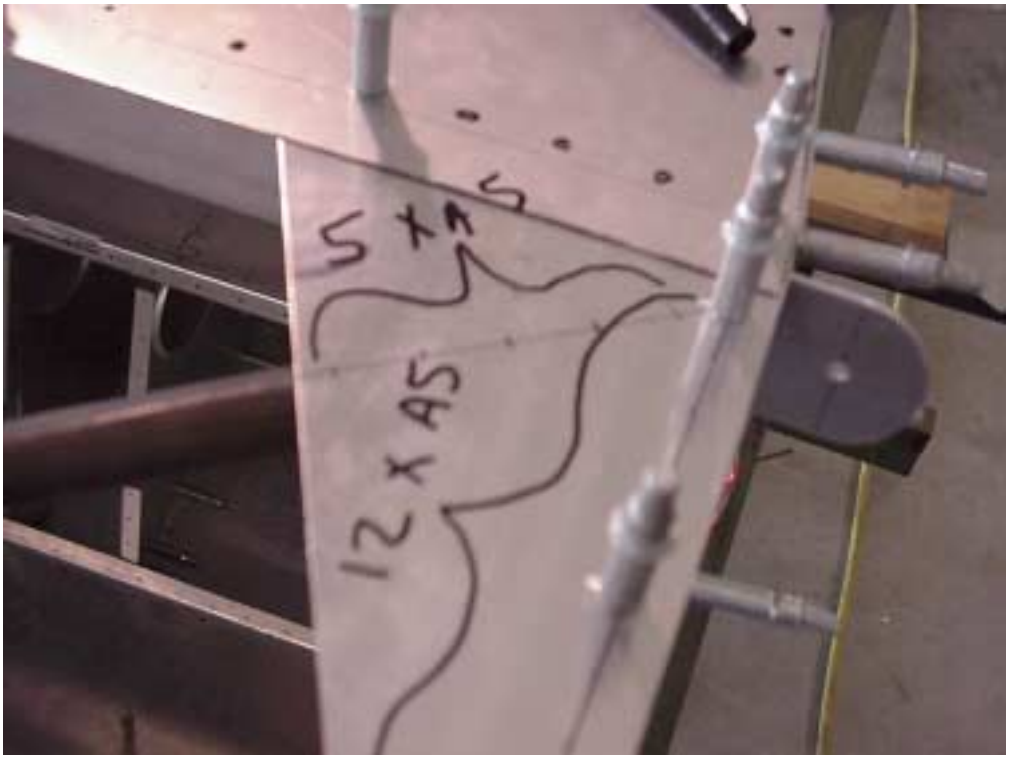


Use a plumb bob to check the alignment of the centerline of the cabin frame with the aircraft center line on the floor skin (front seats).



Total of 12 rivets A5

Rivets in the top tubes of the cabin frame and Top Longeron Gusset 8F3-3.



12 RIVETS A5
In the side tubes

5 RIVETS A5
In cross tube

Rivets in cabin frame diagonal & Top Longeron Gusset 8F3-3 (left side only)