



Ends square to the sides.

JIG: Screw 1x2 furring strips to the workbench to make a jig to rivet the L angles at the end of the fuel tank channel 7V11-2K.



JIG: 600mm between the end boards.

Clamp the bottom flange of the fuel tank channel 7V11-2K to the wood jig.



7V11-2K WING TANK
CHANNEL
STD "L" ANGLE

From the 4ft length of L angles, cut 2 pieces of "L" angles 105mm long.

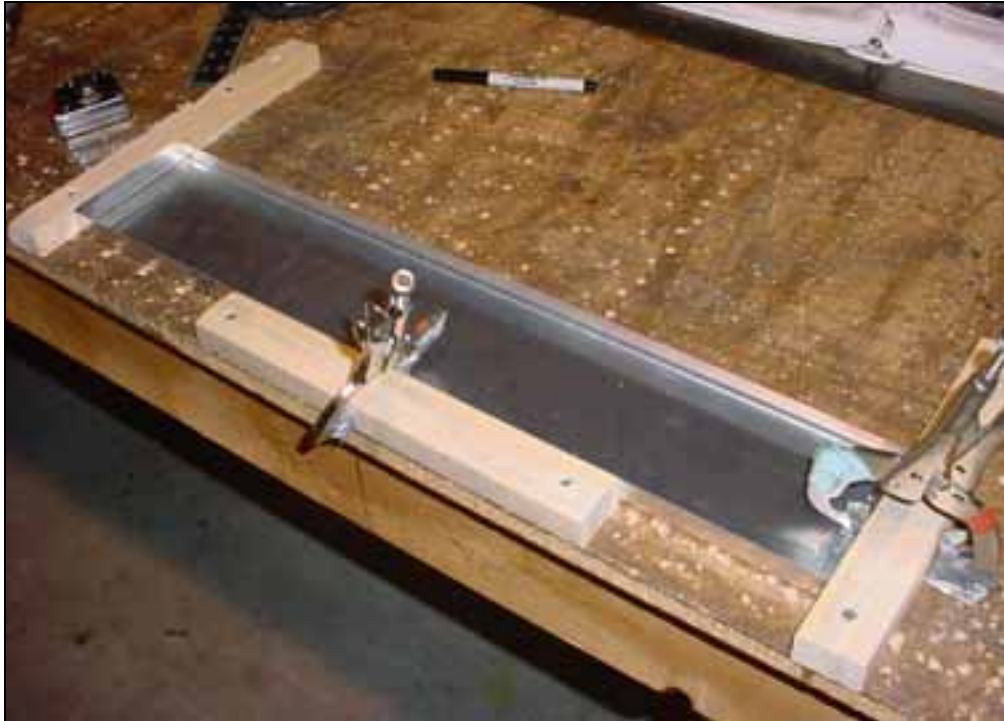


5 RIVETS A4

Layout and drill five evenly spaced rivets.



Clamp the "L" angles to the side of the jig (flush with the end of 7V11-2K, channel).



Install the L angle at both ends of the channel.

Back drill and cleco.



Wing tank channel
7V11-2K

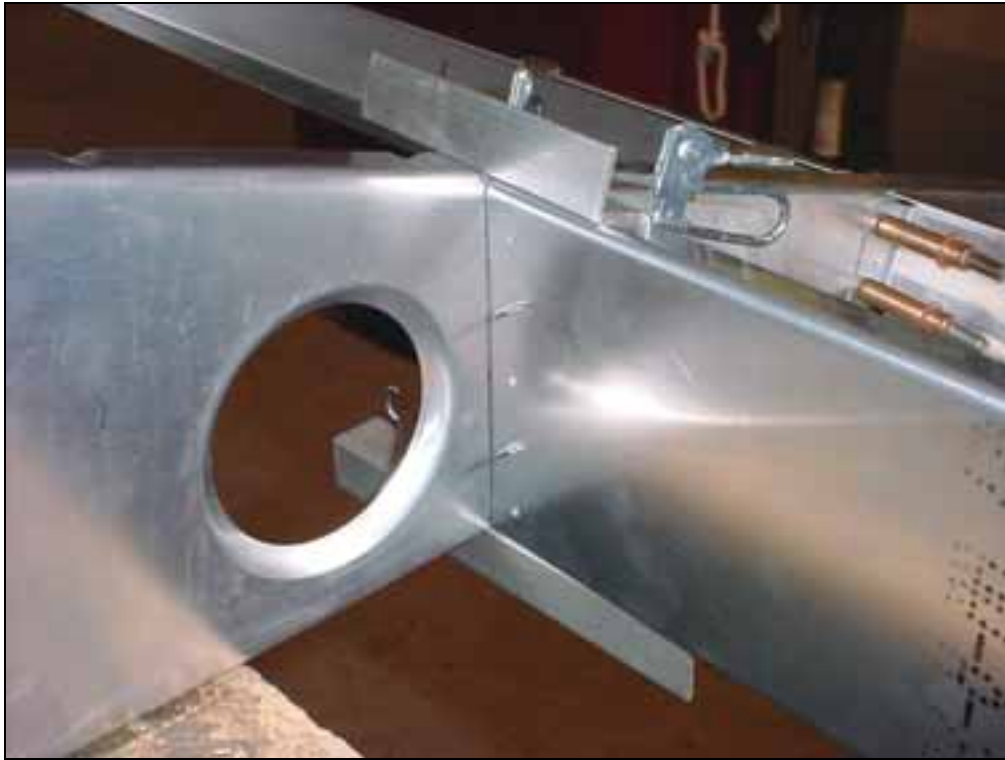
Hook the end of the tape measure on the front of the spar, run the tape over the rib flange.

The placement of the channel is 530mm from the front of the spar to the front side of the channel on the top, and 525mm on the bottom side. Ref. top middle diagram on drawing 7-V-11



The channel fits inside the inboard rib.

Clamp a piece of extrusion to the top and bottom flange of the channel.



Clamp the extrusion to the rib flange.



Detail of outboard end of channel.



Layout the rivet line on the rib,
CHECK: Rivet line is through the L angle.



Drill and cleco.

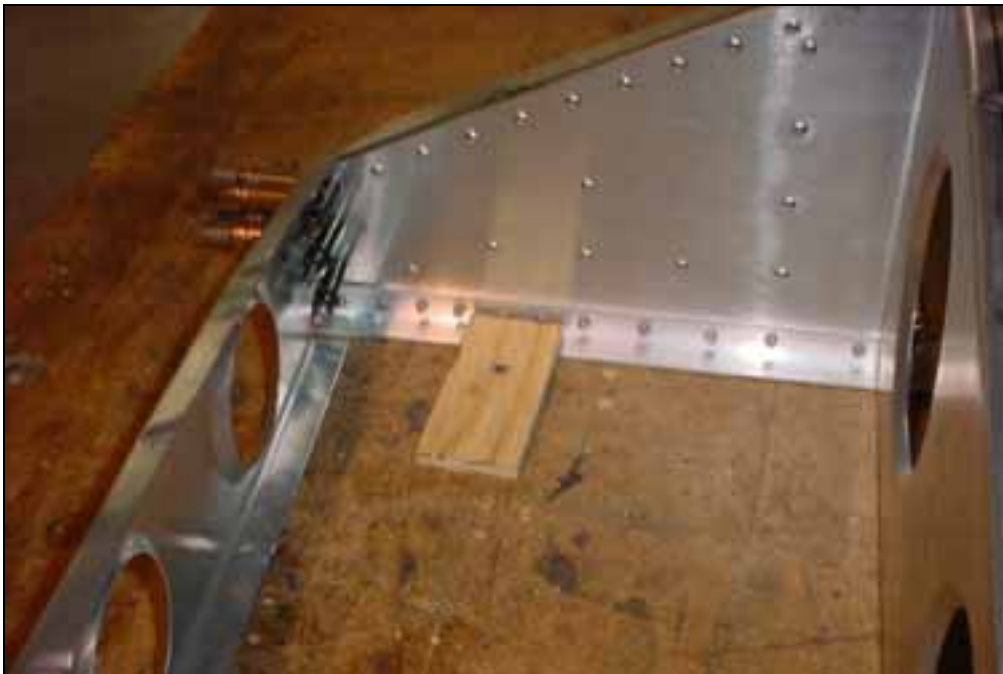
5 RIVETS A4



Set the ribs square to the main spar.

SUGGESTION: remove the nose ribs to accurately mark the rivet line to the edge of the spar.

Pull a chalk line on the workbench. Position the bottom edge of the spar along the straight reference line of the chalk line.
ORIENTATION: The bottom of the spar resting on the workbench (wing is right side up).



Screw small pieces of plywood into the workbench to clamp the skeleton to the workbench.
RIVET LINE: Draw the rivet line on the rib flange (edge distance is approximately 10mm)

Detail of plywood clamp and flange rivet line.



ORIENTATION: pre-drilled holes along the edge is towards the rear.

Rear top skin 7V7-2

Lay the rear top skin 7V7-2 on the wing skeleton.



Use a straight edge to mark a line through the pilot holes in the skin. Draw the line to the edge of the skin.

LAYOUT: Mark the lines along the front edge and aft edge of the skin.



Also mark the rivet line on the spar to the edge of the spar.

NOTE: Photo with the nose ribs removed.



Use pieces of duct tape to hold the skin to the spar.

Make sure the skin is position properly by lining up the rivet line on the skin with the rivet line in the spar.

CHECK: The trailing edge of the skin is predrilled and the inboard to the first rivet line is 320mm to rib 1. The rivet lines are visible through the pre-drilled holes in the skin.



CHECK: The front edge of the skin is flush with the spar.



Drill and cleco the tack rivet through the spar extrusion (hole is 20mm outboard of the rib stations).



Using a large drill bit.



Open the pilot hole with #30 (hole in the skin and spar)
SKIN ONLY: Carefully countersink the hole in the skin, use a large drill bit.
SKIN ONLY: Stop countersinking the hole when the outside diameter of the hole is equal to the diameter of the rivet head.



Tack rivet is a standard A4 rivet; installed using a flat nose piece on the riveter. If the rivet is not perfectly flush, file down the top of the rivet with a hand file.



Start at the front and drill and Cleco the ribs towards the rear (open edge).

Drill and cleco when the rib flange centerline is visible through the predrilled holes in the skin.



Drill and Cleco every 3rd hole. Then go back and drill between the rivets without adding more Clecos.



Layout the rivet line for the rear channel. Measure from the channel center to end of the skin and transfer to the topside.
 COMMENT: supplied skin may already have the rivet line pre-drilled!



CHECK: Make sure that the rivet line is in the center of the channel before drilling.

Edge distance = 10mm



Also Drill a hole at the intersection of the rib center line with the rivet line through the rear channel.

A4 pitch 40 between end holes in the Rear Channels 7V6-1 and 7V6-2SP

End hole: 10mm from the ends of the Channel (the first and last rivet in the rear channel are approximately 20mm from the rib center line).



Drill and Cleco the rivet line through the wing tank channel.



Finish drilling the skin to the ribs and channels.



Rivet line through channel.