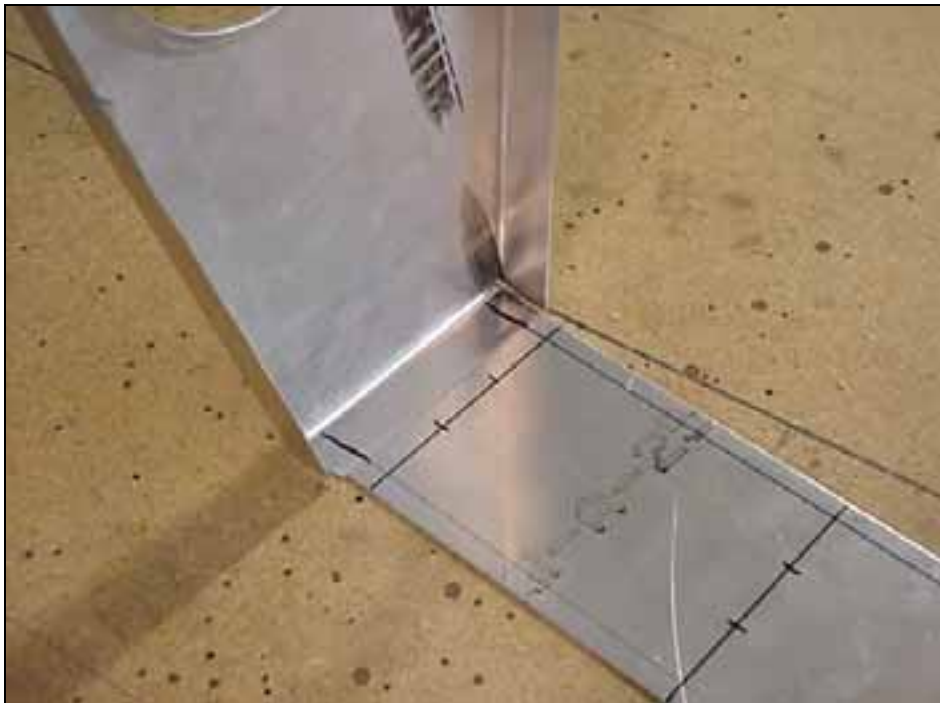




**DOUBLER  
6W7-2**

Layout the rib station for RR1, RR2 and RR3 on the Root Doubler. The rivet lines are at 90 degrees to the sides.



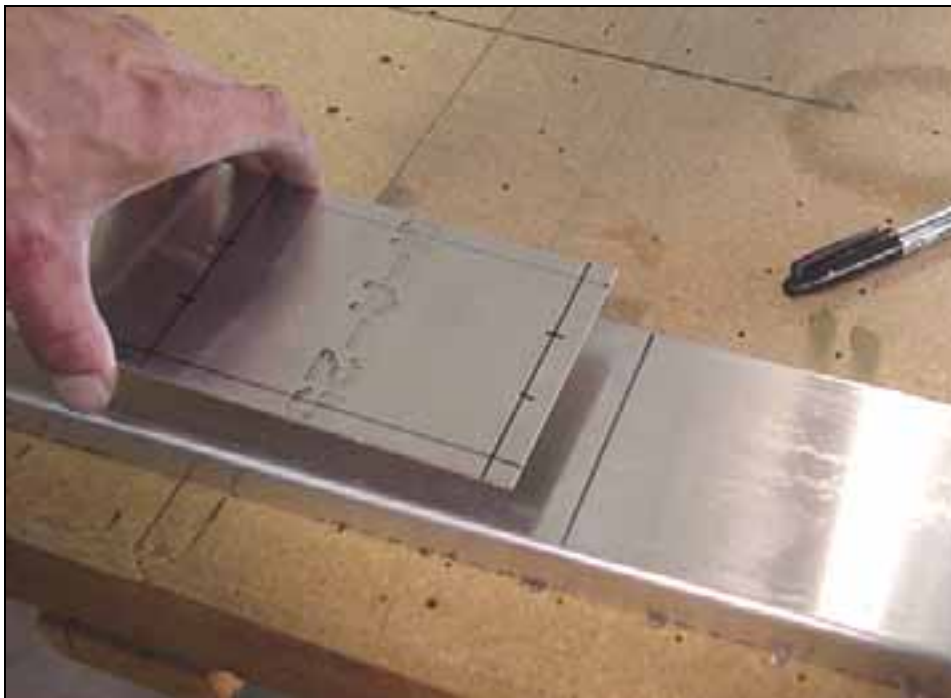
The vertical rivet lines in the Doubler is the same rivet line that will be drilled through the Rear Ribs.

**CHECK:** Hold a Rear Rib on the Doubler, check the edge distance for the top and bottom end hole in the rear rib flange is 10mm  
Pre-drill the twenty holes with a #30 drill bit in the Doubler.



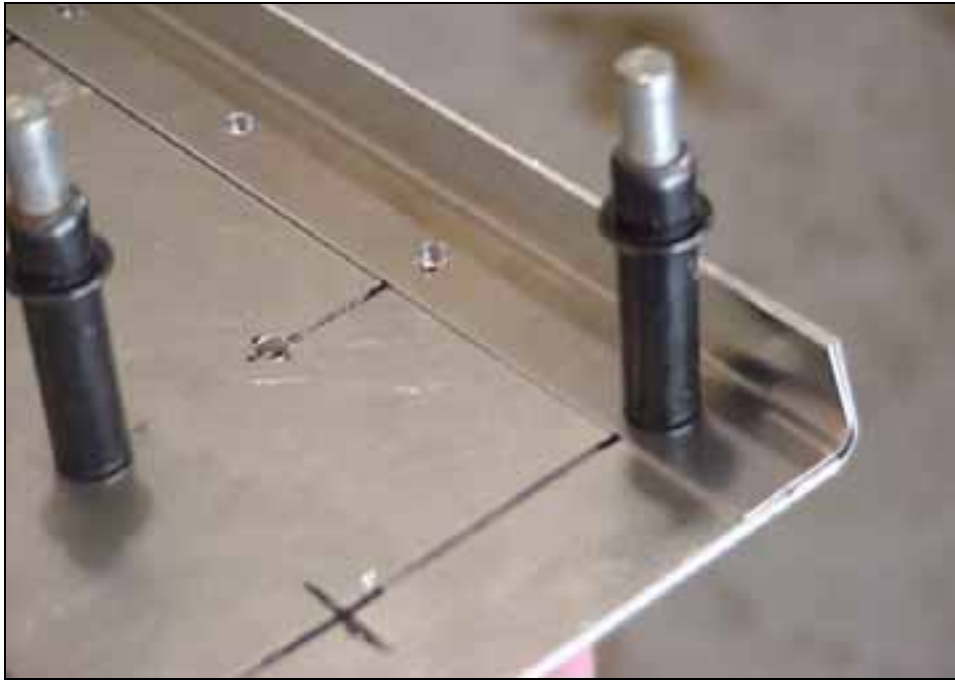
Using the Doubler to layout the rivet pitch

Layout the rib stations for RR4 to RR9 on the Rear Channel 6W7-1  
*Suggestion:* Use the Root Doubler 6W5-2 as a 90-degree square to mark the rivet line and rivet spacing.



Doubler shown on the backside of the Channel, the Doubler could also be used on the inside of the channel!

Pre-drill the holes in the Rear Channel for rib stations #4 to #9 with #40 pilot holes.



The Hinge Doubler **6W7-3** fits in the bottom corner of the Doubler 6W7-2 with the Channel 6W7-1.

Clamp the Root Doubler on the backside (inside) the Rear Channel; line it up flush at the root. Check that it is centered up and down. Drill and Cleco with #30 holes. Remove any Cleco at Rib stations 1, 2 or 3.



Clamp the bottom flange of the Hinge Doubler to the bottom flange of the Rear Channel.



Ref. 6-W-7 the inboard end of the spar is not in line with the end of the main spar.

The channel is riveted to the aft flange of the rear ribs.



CLAMP the channel to the rear ribs.

CHECK: The top flange of the channel is installed flush with the top flange of the rear ribs.





**4 RIVETS A5**

**DRILL:** Drill and Cleco when the rib flange centerline is visible through the pre-drilled pilot holes in the Channel.



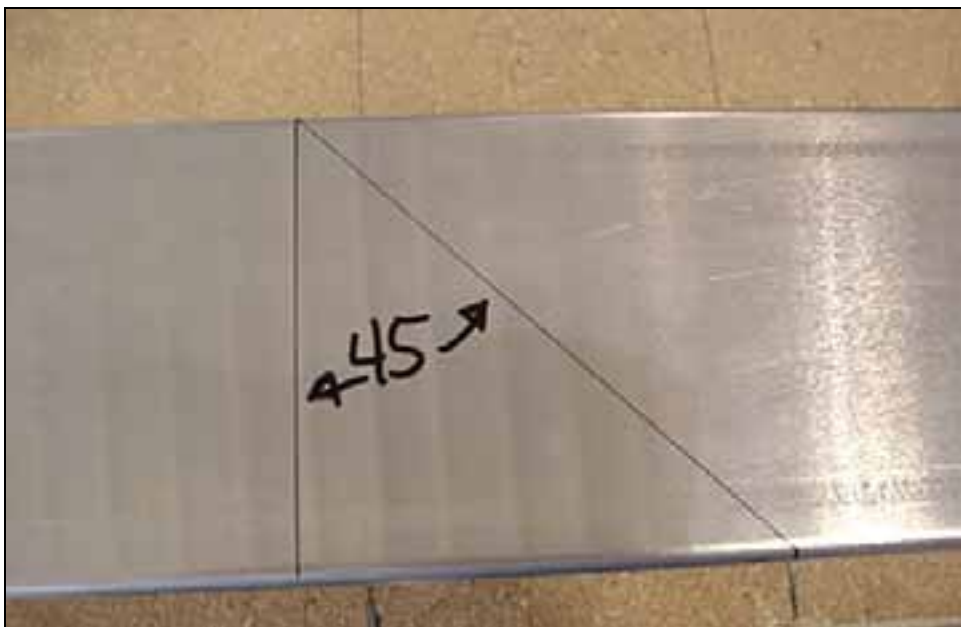
**SUGGESTION:** Look over the rib flanges by sighting down the wing, the flanges must all be in line; the rear flange is 3 degrees closed. Flexing the rib flange by hand can make small adjustments. In some cases a tap with a plastic hammer will eliminate a high point; high points are usually the edges of the crimps.

Looking at the Root end of the right wing.



ORIENTATION: 45 degrees is in the same direction as the angle on the Spar Tip 6W5-1

O/B end of the Channel before it is cut.



To avoid cutting the angle the wrong way, mark the 45 degree angle with the channel on the skeleton.

Cut the tip of the Rear Spar at 45 degrees; this can be done when the skeleton is disassembled to deburr the holes.

Layout the tip at 3525 mark the 45-degree line and cut. Make some rough cuts to remove the material to approximately 10mm from the line, and then do a final cut on the line.



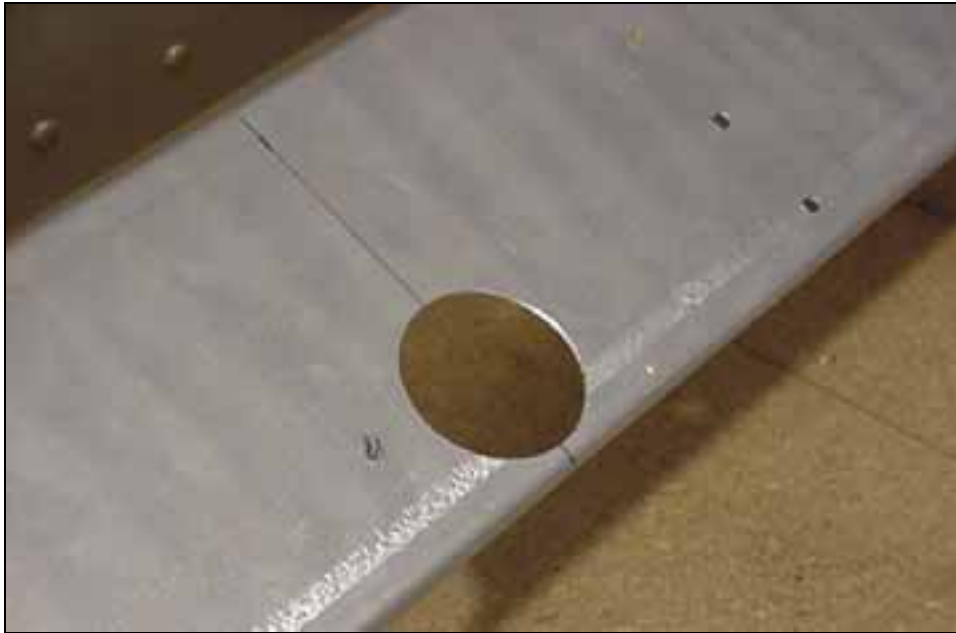
Locate the center of the 1-1/2" hole for the Aileron Rod 92mm outboard of RR7. and 20mm up from the bottom flange. Use a hole saw to drill the hole. Equally effective is a fly cutter, to avoid damage, turn the tool by hand.

**SUGGESTION:** to avoid simple mistakes, layout the location of the hole with the channel clecoed to the skeleton.



Location of the 1-1/2" hole 20mm up from the bottom flange.





1.5" hole.



Hole saw.



Right wing skeleton.

Disassemble, de-burr, clean, apply corrosion protection and re-assemble with Clecos – A5 Rivet.

Set the rivets from the front side of the Main Spar and from the backside of the Rear Channel (Rivet head on the web).

The Nose Ribs are installed later after the rear skins have been positioned.

**RIVETING:** Check that the rivets are set straight. The special riveter head will form the domed head by pushing the edge of the rivet to make contact with the skin. **CHECK:** there should be no gap between the circumference (edge) of the rivet and the skin.

**WAIT:** Wait to rivet the nose ribs.