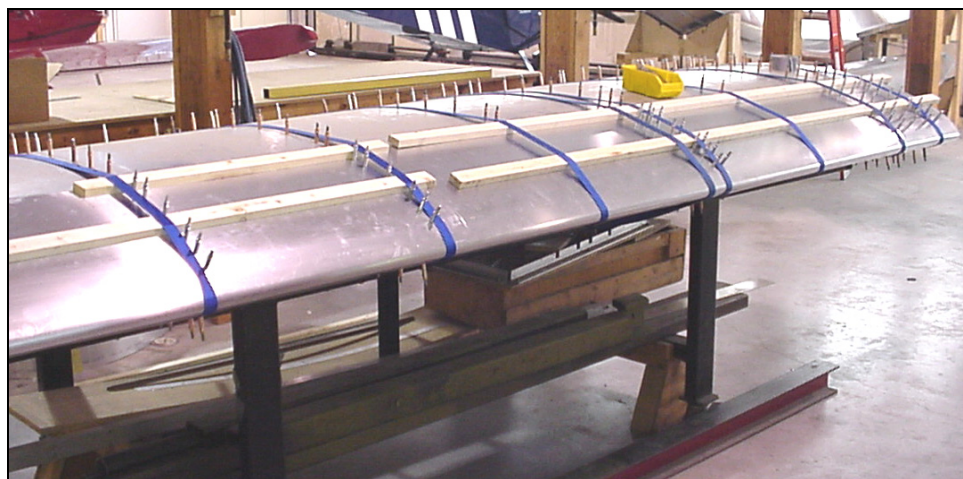


Turn the wing over to strap down the topside of the LE skin. Position support beams under the rear channel and spar to level the wing. Lay ratchet type straps underneath the wing: between the rivets in the spar. Adjust the height of the spacer blocks by the thickness of the straps. Clamp the bottom skins to the workbench to keep the wing assembly from shifting when the LE skin is pushed down.



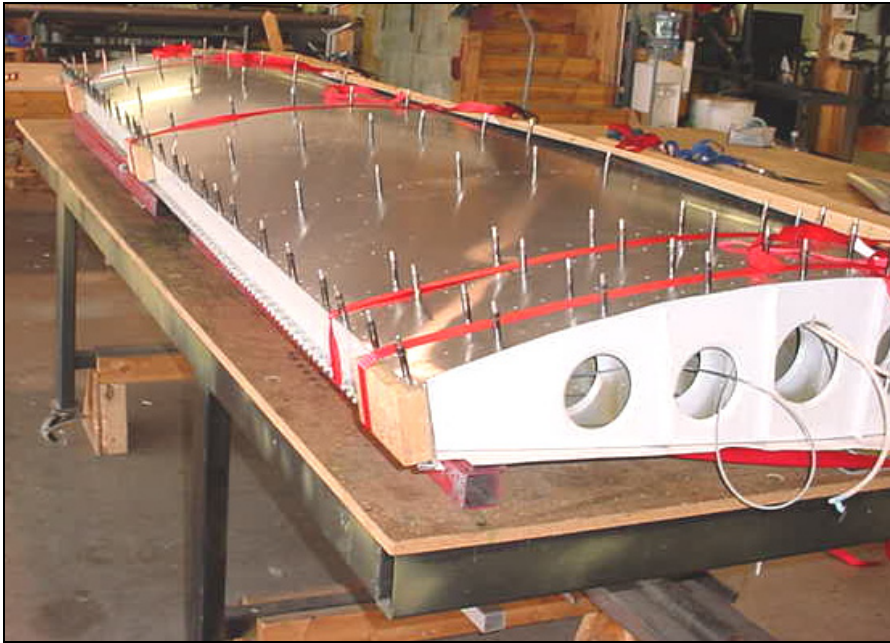
Do not push on the skin with your hands. Instead, push on a long 2x4 board to bring the LE skin down on the ribs. Tighten the straps over the board.



Ratchet Straps
(One piece assembly
1" side, 12feet long nylon
webbing material)

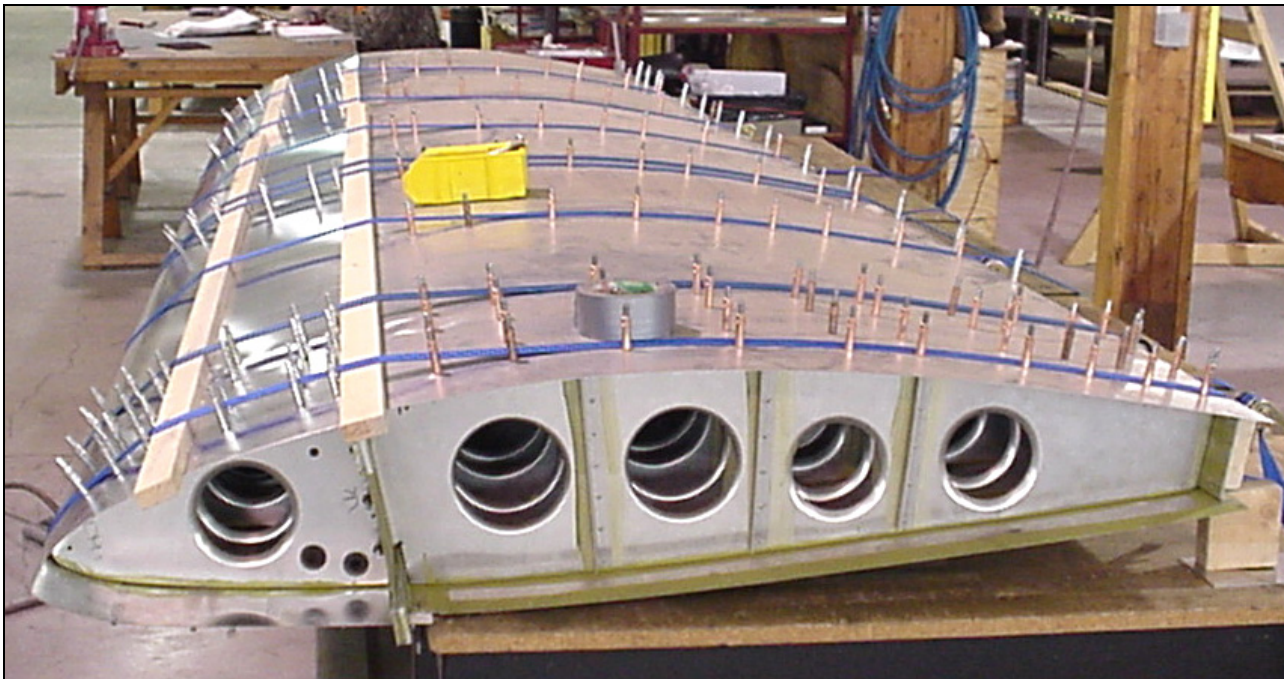
McMaster-Carr
P/N 8842T17
<http://www.mcmaster.com>

Slide 1x2" boards underneath the strap to help close the gap between the Leading Edge Skin and the ribs.



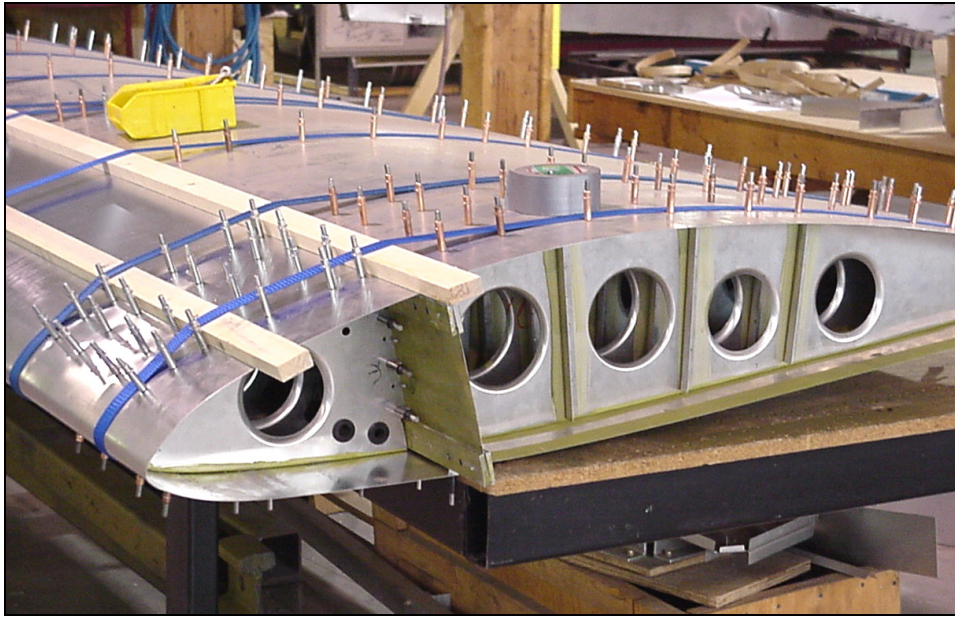
View of the Rear Channel

To avoid damage to the Rear Channel, slide a piece of 2x4 board upright between the channel and the strap



Right wing assembly

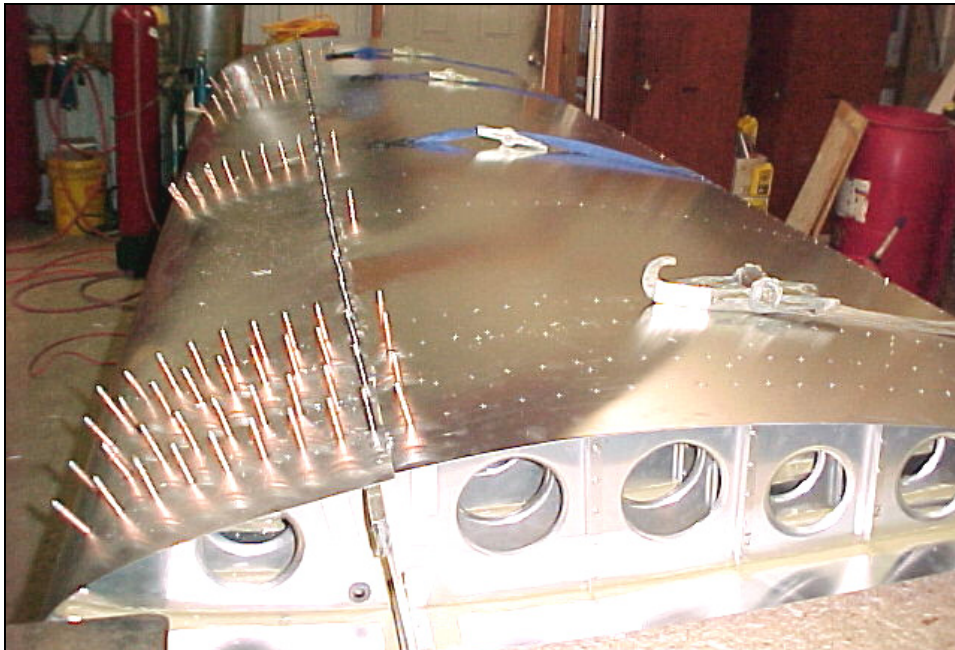
NOTE: KEEP the spar on the beams, not on the workbench as shown in above photo.



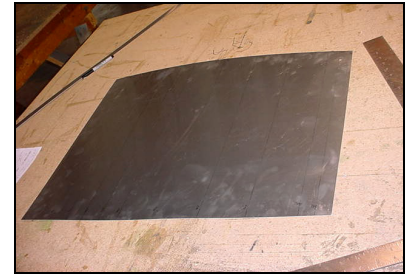
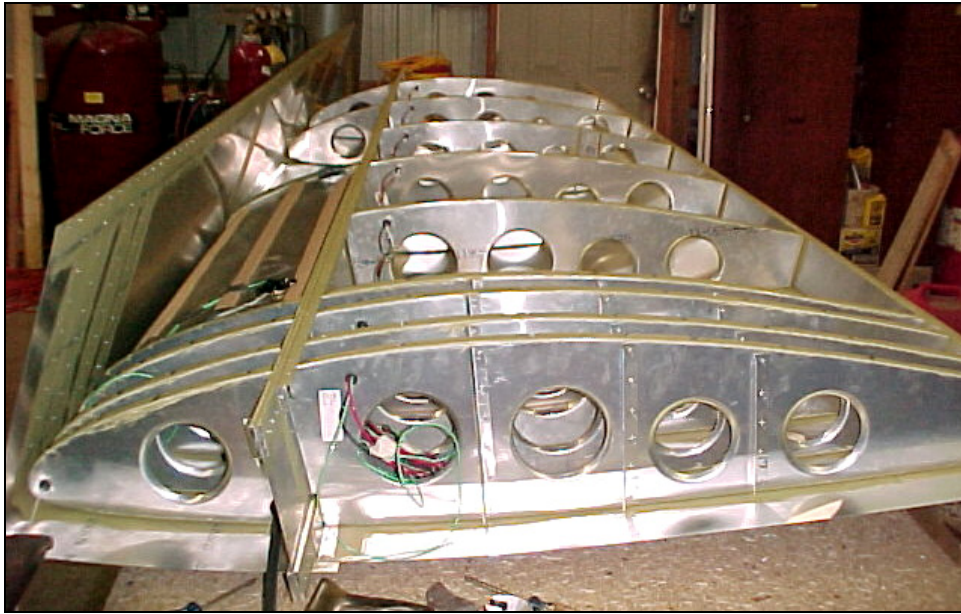
NOTE: KEEP the spar on the beams, not on the workbench as shown in photo to the right.

Layout the rivets.

CHECK: That the rivet line is in the middle of the spar Cap angle. Trace the aft edge of the LE skin on the rear top skin and compare measurements. Open the straps, check that the rivet spacing is between the crimps and pre-drill the skin with pilot holes.

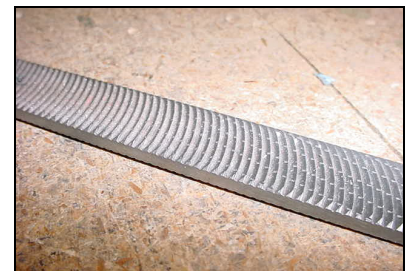
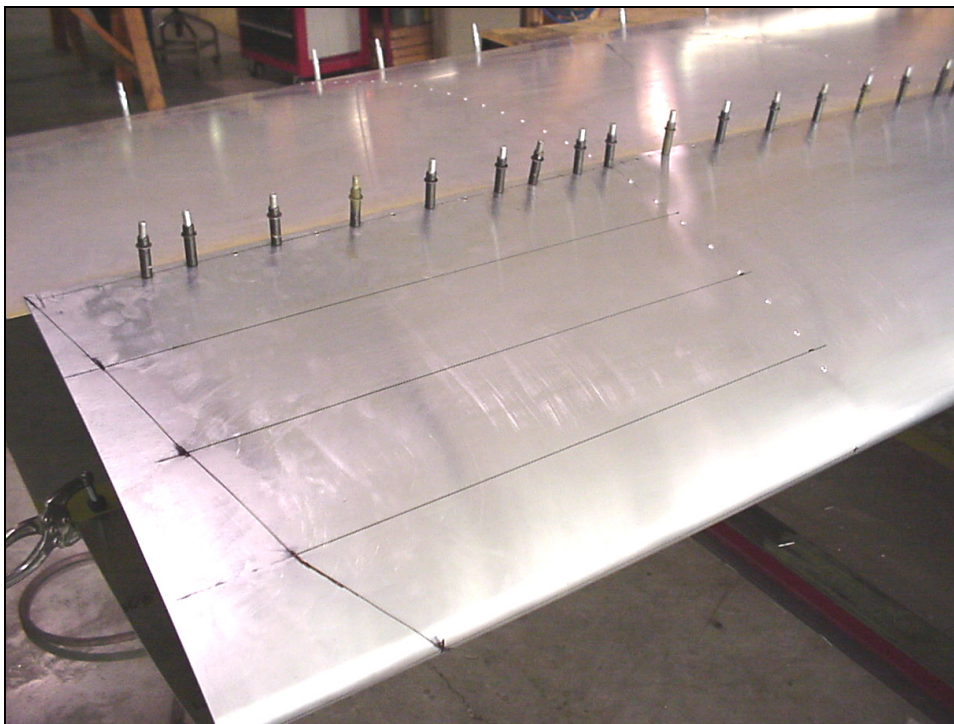


Strap the skin. Drill & Cleco starting at the front of the ribs.



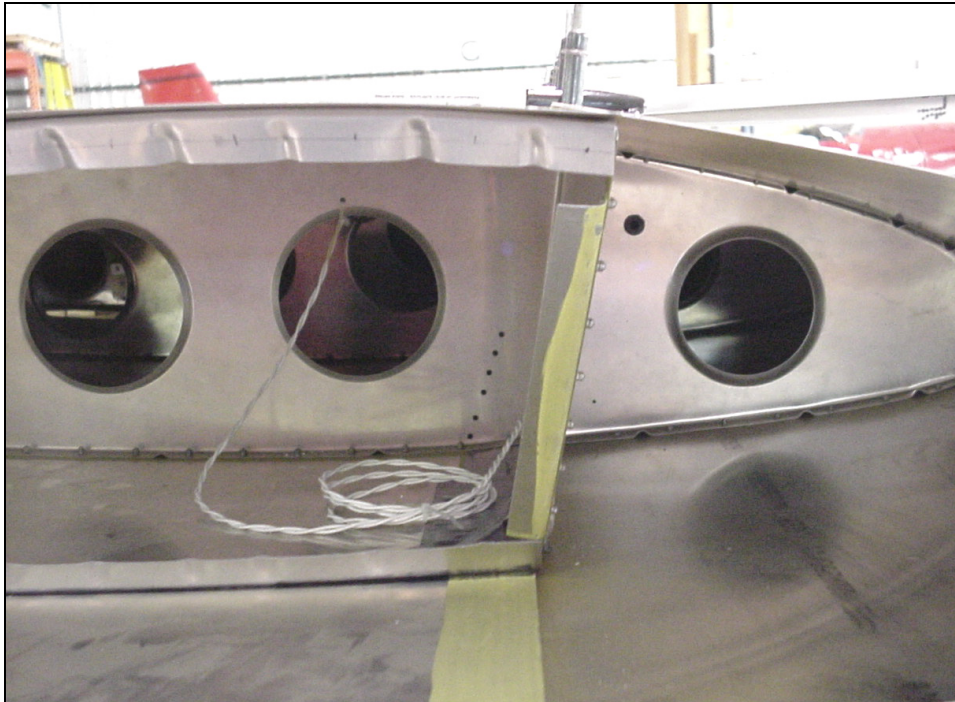
SUGGESTION: Layout the coordinates for the rear top skin 6W8-3 on a separate sheet or construction paper. The same template can then be used for both wings!

Remove the clecos and straps, drill out the tack rivets and remove the rear top skin. Deburr all the holes, and apply corrosion protection.



After the skin is cut, use a body file to plane the cut edge. The body file will remove any dip, irregularity or slivers that may have occurred during trimming.

Photo of right leading edge wing tip. Lay out the coordinates for the wing tip and wing root. First connect the ends of the coordinates with straight line segments, then divide each segment in the middle and mark a point approximately 2 to 3mm outboard of the line segment. Connect the coordinates to the middle points with a smooth curve or arcs. Cut with the hands snips and finish the edge with the body file.



The wingtip bottom and top angles 6W9-6 and 6W9-7 fit above and below the L angle at the end of the spar tip 6W5-1.



The front end of the angles will be trimmed flush with the aft edge of the fiberglass tip.

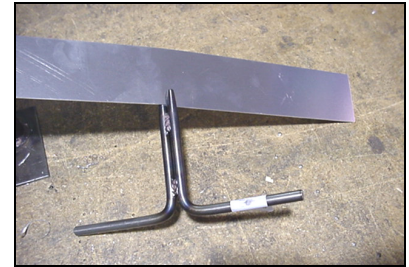


Photo of hand crimping tool
P/N CRIMP



First form one side of the crimp, then twist the handle the other way.

Install 6W9-6 and 6W9-7. To make the curvature of the wing, crimp both flanges 6W9-7 every 40mm starting from front. For 6W9-6 only crimp the side flange every 40mm.



Twist the handle first one way, then form the other half of the crimp

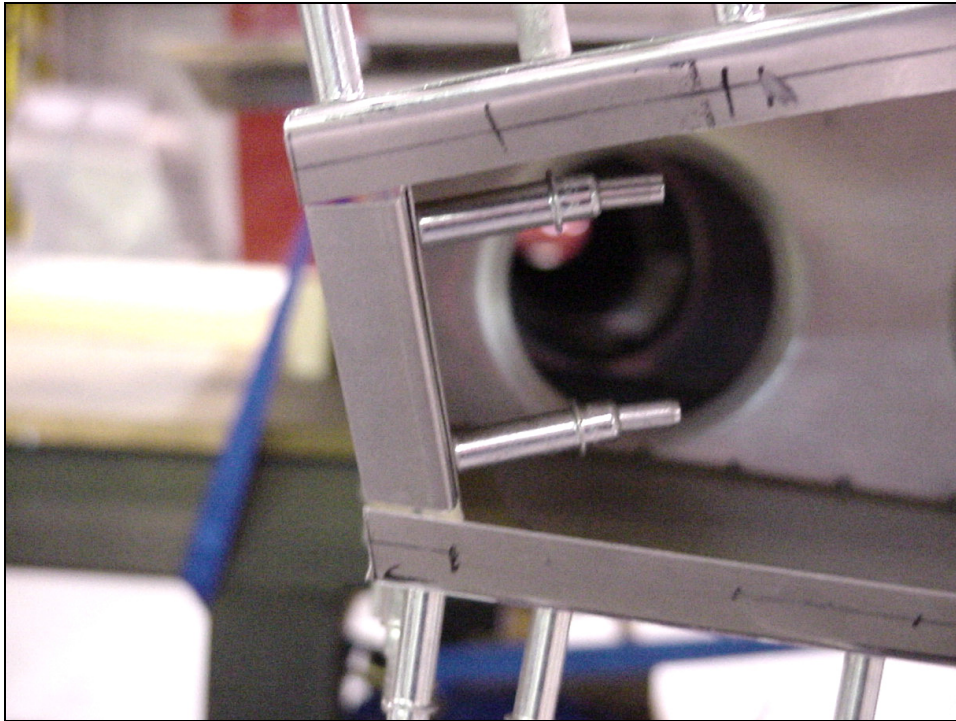
Keep the crimps on the inboard side.



Cut the top and bottom skin.

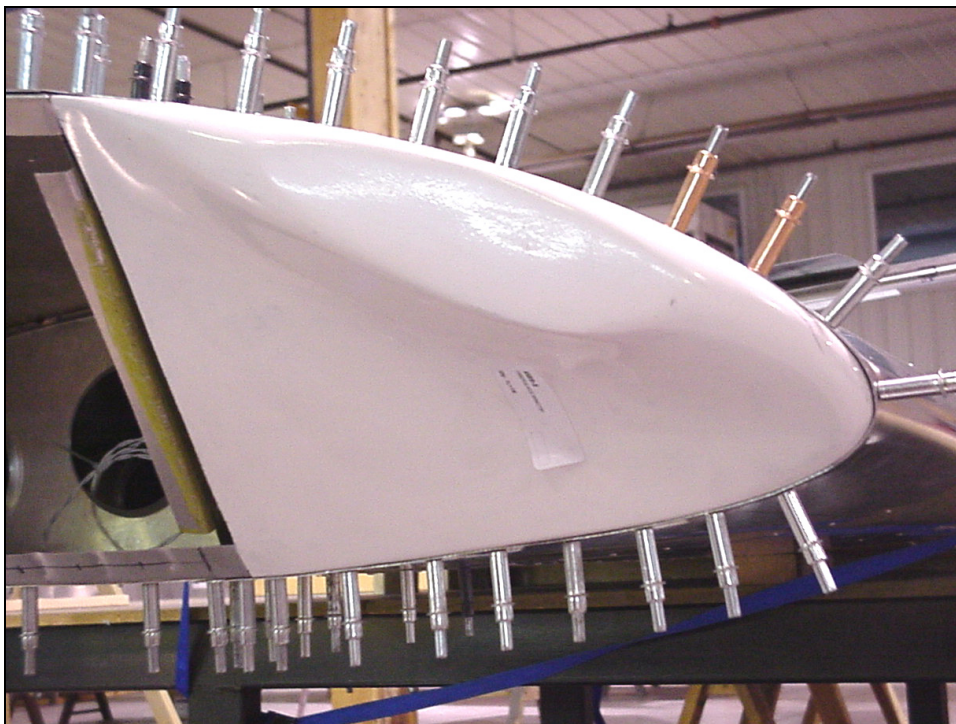


Drill and cleco every 40mm on top and bottom angles.



Trim 6W9-6 and 6W9-7 flush with the aft edges of the Channel.

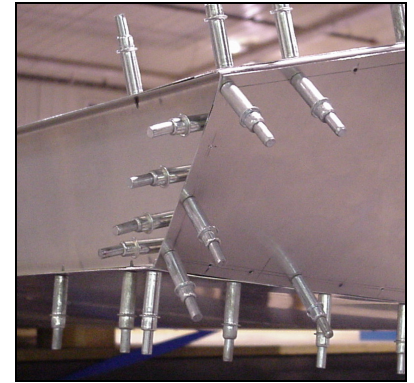
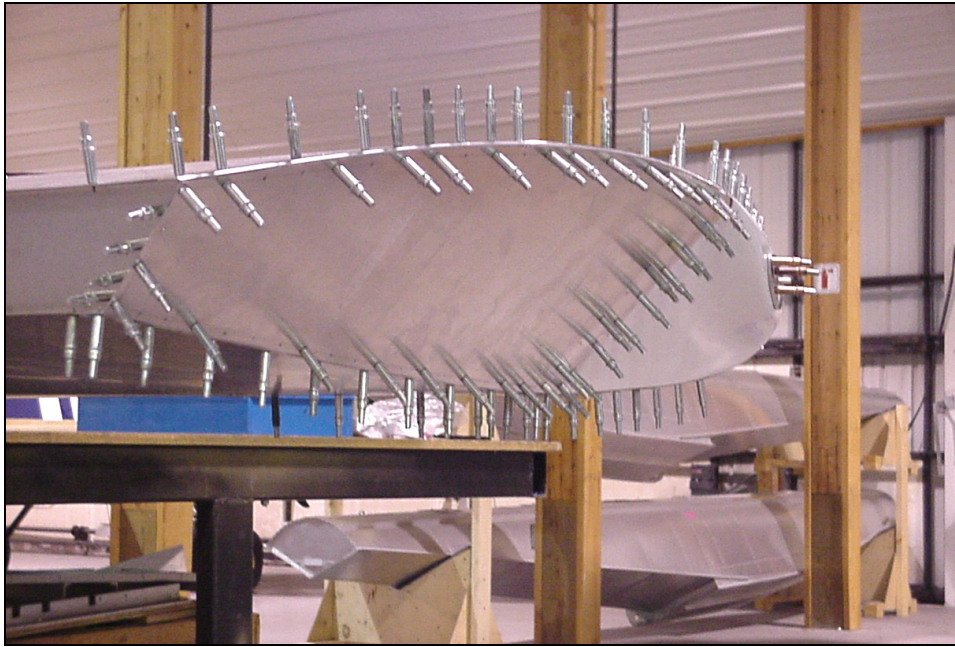
Install 90mm 'L' angle on the backside of the channel with 4 x A4 rivets.



Fiberglass tip

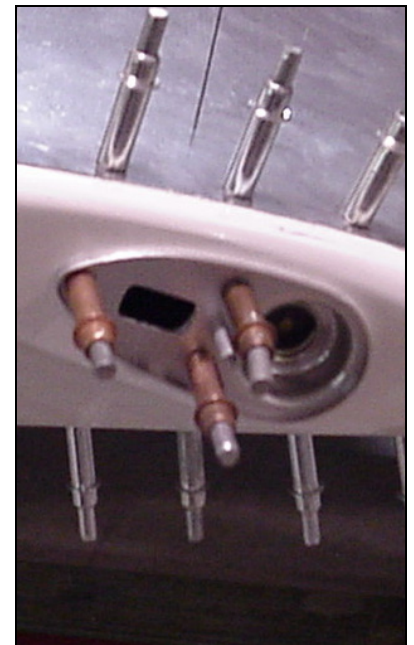
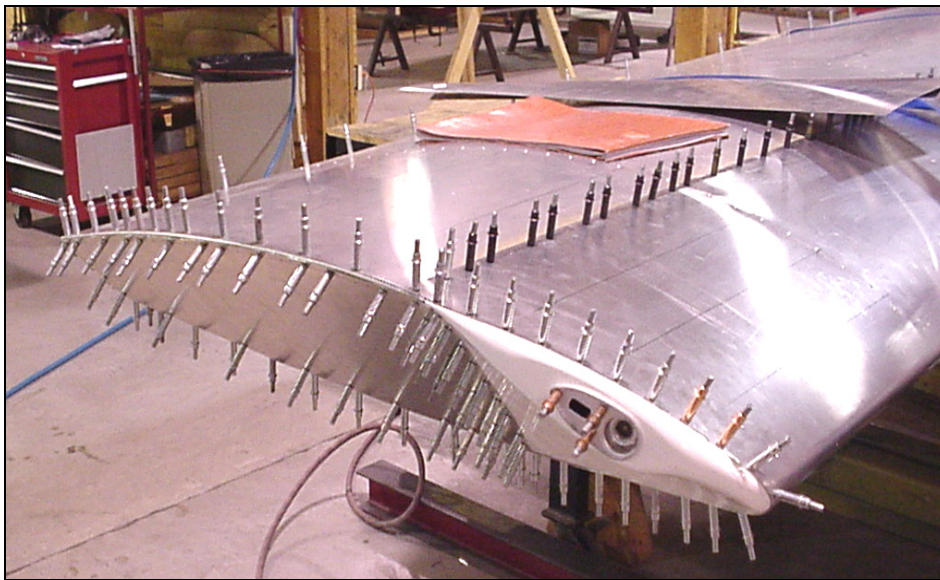
Position the fiberglass tip and layout A4 rivets pitch 40. Drill and cleco.

Trim the top, bottom and leading edge skin from the coordinates. Leave 20mm for final cut on the leading edge skin until after the fiberglass tip is installed.

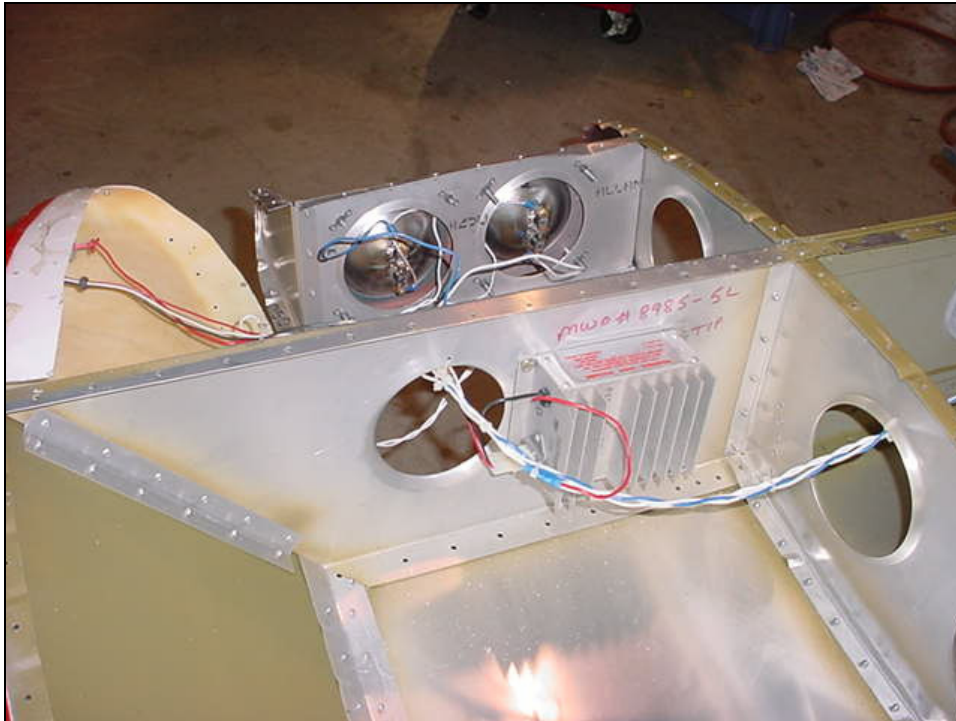


Wing Tip Sheet 6W9-4

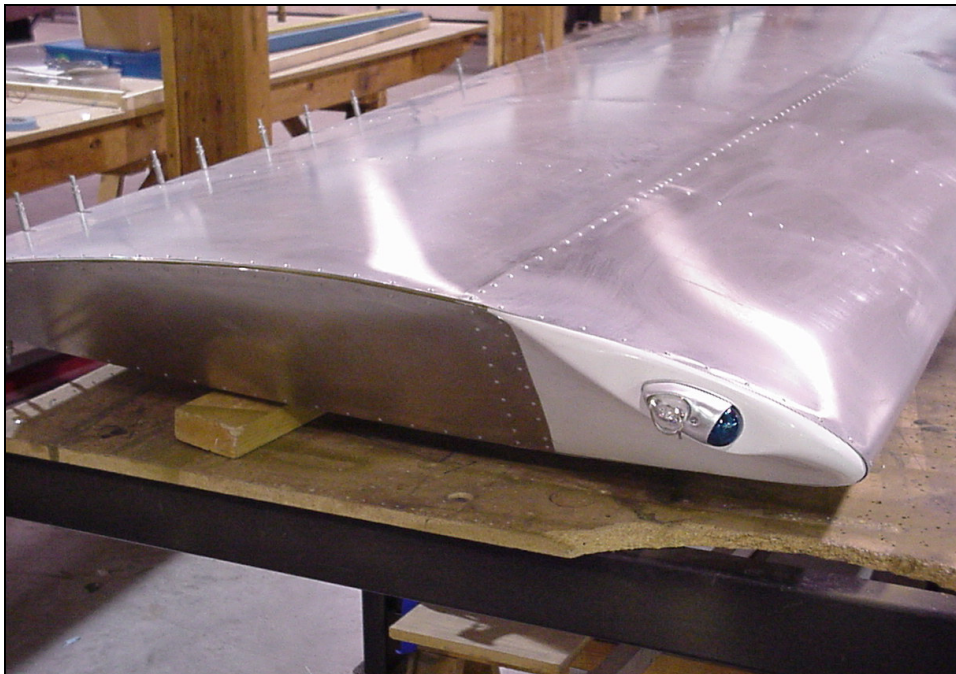
Lay the wing tip sheet against the wing and trace the outline onto the sheet and trim. Drill A4 rivets pitch 40 to 6W9-6 and 6W9-7. Now is a good time to drill and cleco the ailerons to the wing.



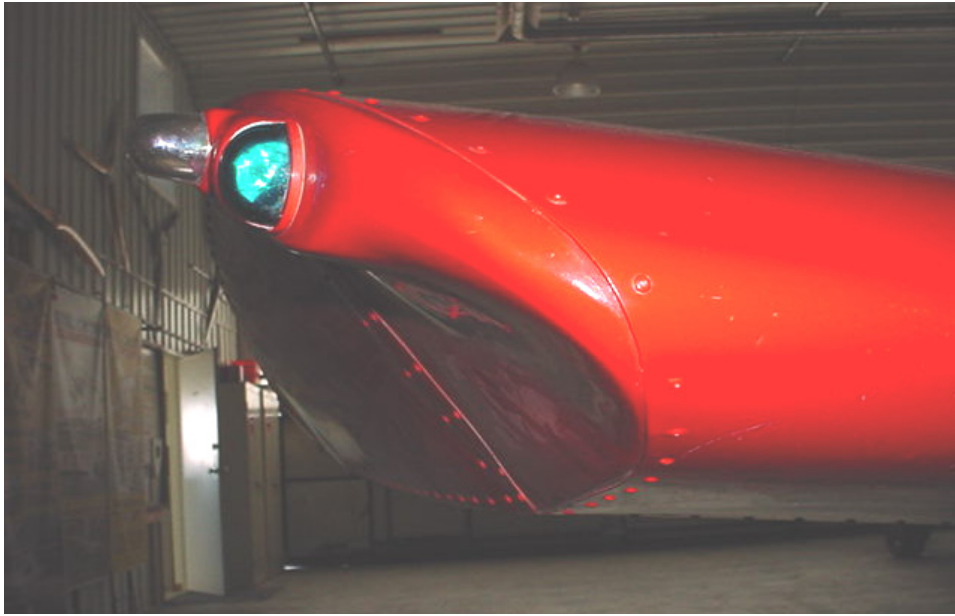
Position and install the Nav/strobe light on the fiberglass tip.



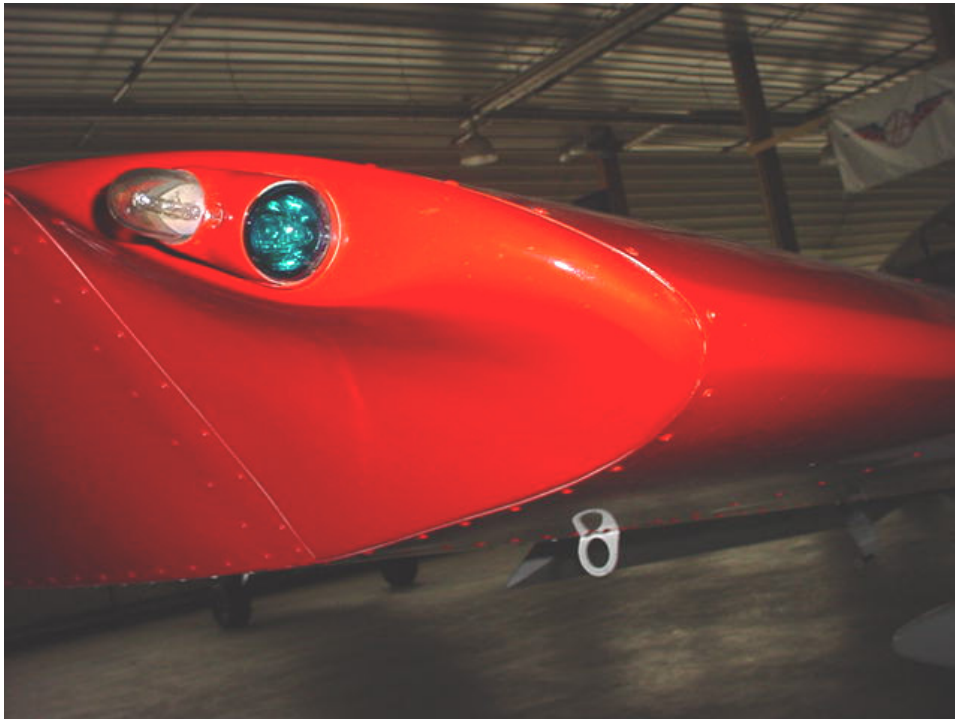
Installation of the drive unit for the strobe lights,
Ref option drawing 6-NSO-1



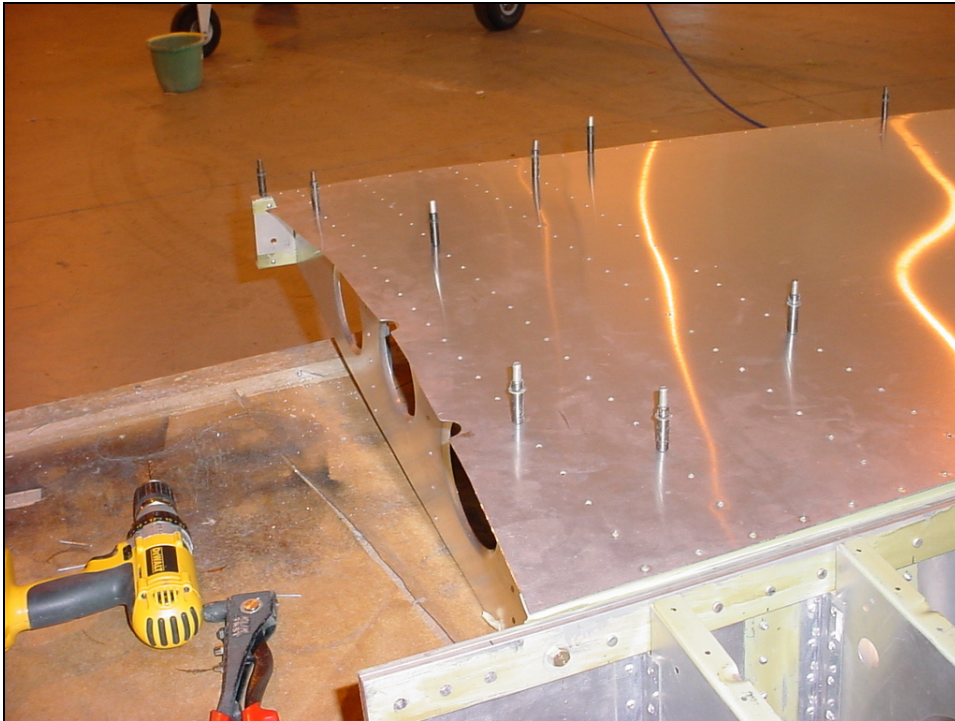
Right wing.



Right wing tip: front view



Right wing tip: side view.



Root cutout, bottom skin 6W8-2, ref 6-W-9



Wait to make cutout until fuselage is assembled.

Cutout to make room for 1/2" bolts on the main gear attachment 6B11-4.