

Reference top flange: Line up the top flanges flush.

Spar web is supplied pre-drilled with #40 pilot holes through the Spar Tip 6W5-1.

Position the Spar Tip 6W5-1 on the backside of the Spar.
Spar tip overlaps spar web, Ref. drawing 6-W-5



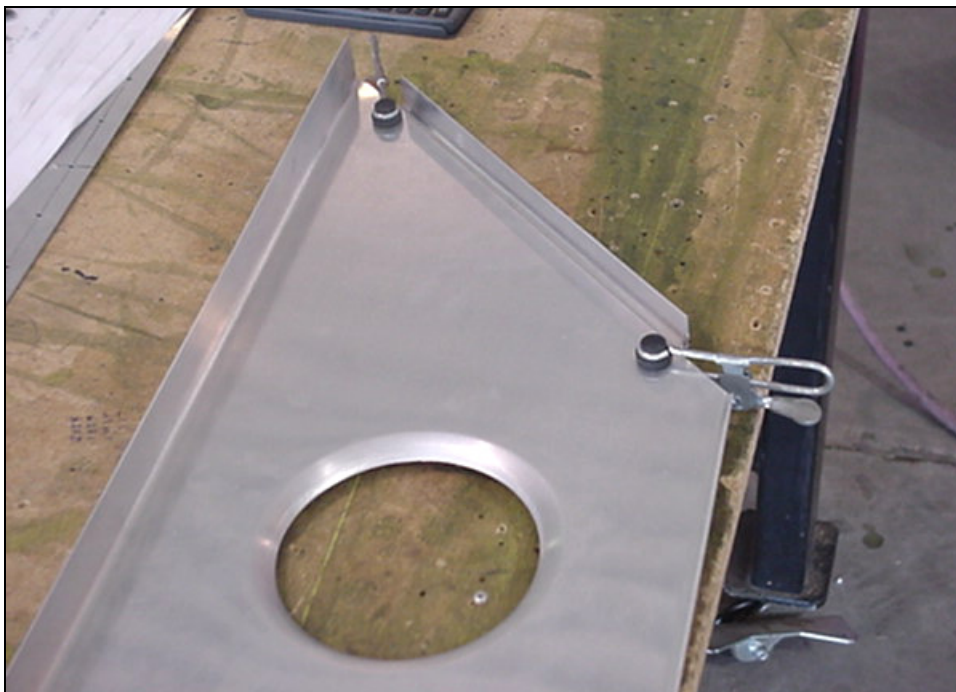
Clamp top and bottom.



CHECK: The top flange of the Spar tip is in line with the top of the spar.

**7 RIVETS A5
(6W5-1 to 6W3-1)**

Turn the spar over and back drill through the pilot holes in the spar web.

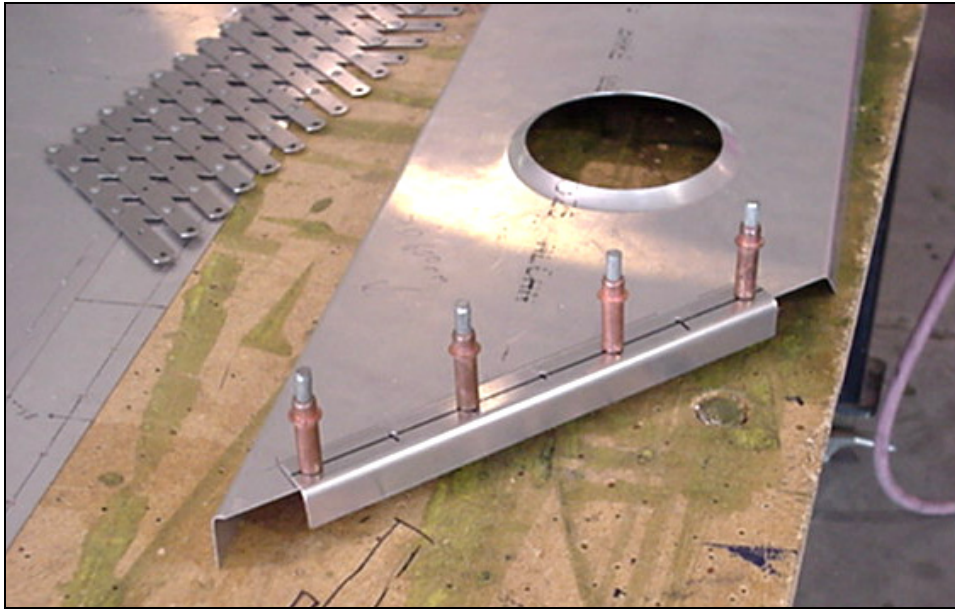


“Handi-clamp”
(Cam level action clamp)

Avery tools
P/N 42100
<http://www.averytools.com>

U.S. Industrial Tool & Supply
TP640HC
<http://www.ustool.com>

Drill and Cleco a length of ‘L’ angle (230mm) along the 45-degree edge of the Spar Tip (overlap the L angle on the front face of the Spar Tip; the other flange points towards the rear). Center the L angle with equal distance to the top and bottom corners (approximately 30mm). Line up the edge of the 45 degree Spar Tip on the bend tangent line of the L angle. A4 pitch 35.

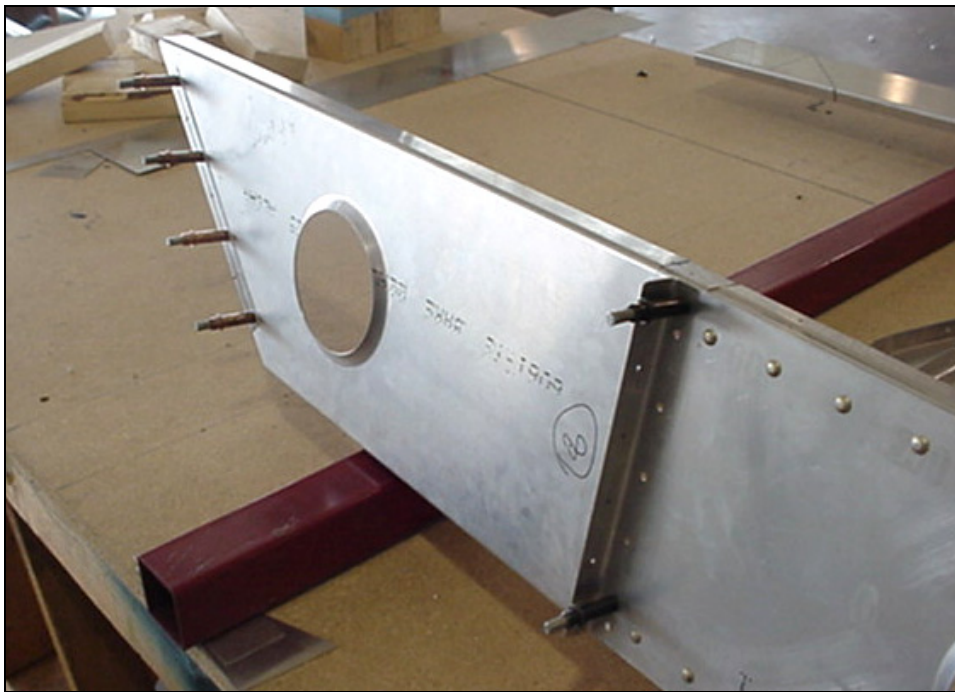


Even Rivet Fan Spacing
Or
Rivet Fan Spacing tool

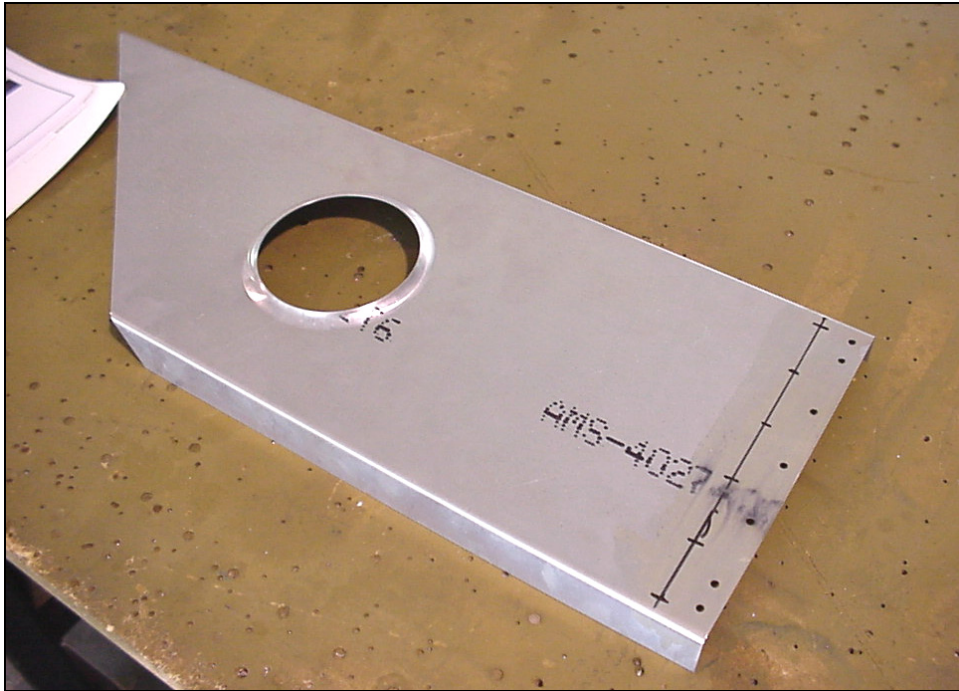
Avery tools
Tool P/N #81
<http://www.averytools.com>

U.S. Industrial Tool & Supply
TP621
<http://www.ustool.com>

L angle clecoed to spar tip.

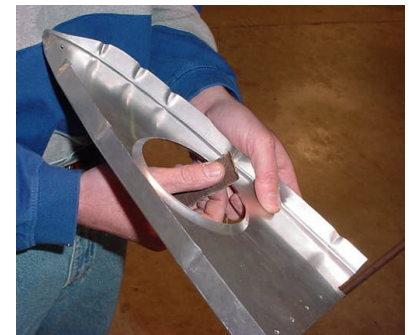


Looking at the front side of the spar assembly.



6 RIVETS A5
(RR#9 to 6W5-1)

Layout the rivet line for RR #9
Pre-drill the holes in the Spar Tip for the RR #9 with #30 or #40 drill bit.
Cleco and rivet the Spar Tip 6W5-1 to the Spar Web 6W3-1
total 7 rivets A5.



If necessary, deburr the edge of the flanged lightening holes.

NOTE: the hole at the back of the ribs indicates the BOTTOM side of the rib.
Nose ribs do not have a rear flange.

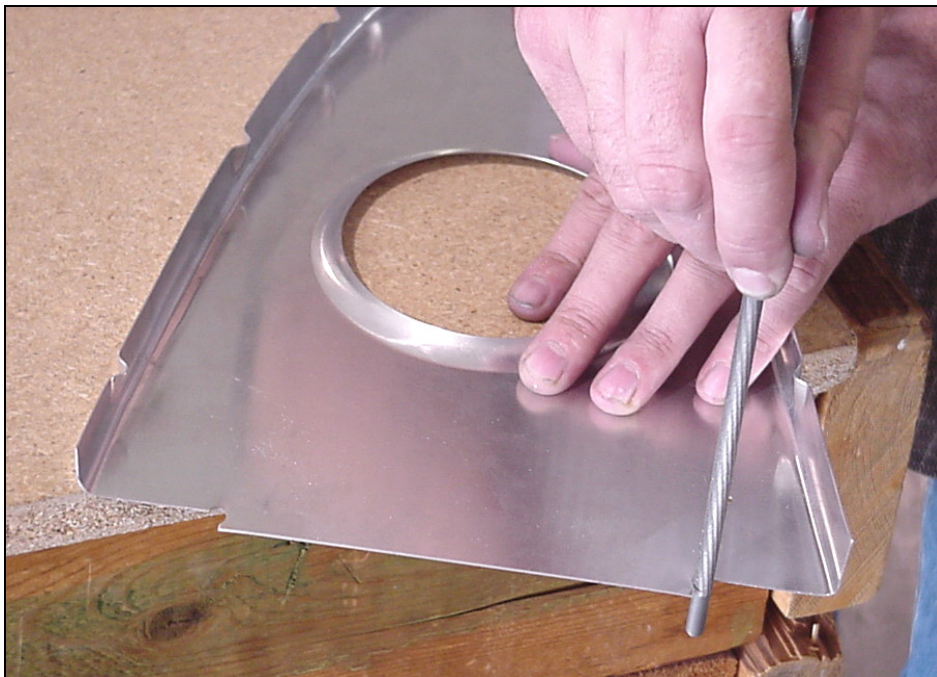
Photo of nose rib as supplied without the top and bottom cutout to clear the spar caps



Layout a parallel line to the aft edge of the rib at 8mm.
Mark the location of the corner relief hole



Use snips to cut the corner
(including side flange).



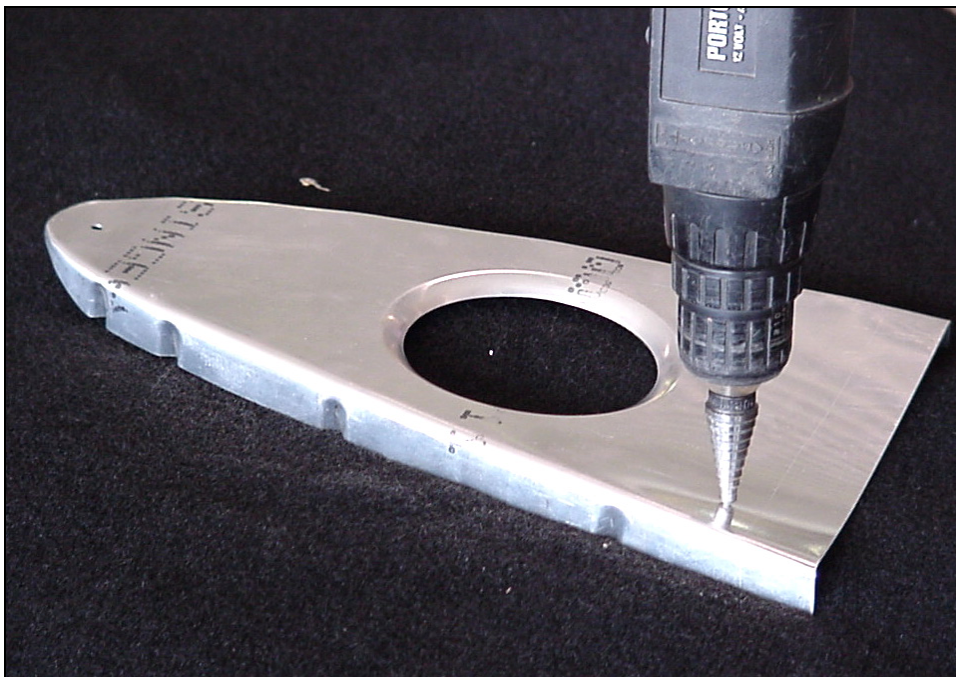
Corner relief hole.

Layout the cutout on Nose Ribs 1 to #3; the cutout is to make room for the front upper and lower spar doublers 6W3-2 and 6W3-3. Cut with snips, and then use a chainsaw file (round file) to file a corner relief hole in the corner. An alternative method is to drill 3/16" then snip into the corner relief hole.



Nose Ribs 1, 2 and 3
See 6-W-7 for flange
directions.

Cutout to make room for the front upper and lower spar doubler 6W3-2 and 6W3-3



A step drill or "Unibit" works very well to drill larger holes in thin material.

U.S. Industrial Tool & Supply
TPA5612
(3/16" to 1/2")
<http://www.ustool.com>

GROMMETS
MS35589-14
(AN931-8-13)
1/2" ID (fits in 13/16" hole)
Qty=4 (see 6-K-1)

Drill the 13/16" hole in the ribs for the **fuel line**. Refer to the text at the bottom right on drawing 6-W-5 for the vertical location of the hole. Only the hole in NR#3 is centered on tooling hole "C". Only in NR# 3 drill a 1-1/4" for the fitting out of the tank (a grommet is not required).