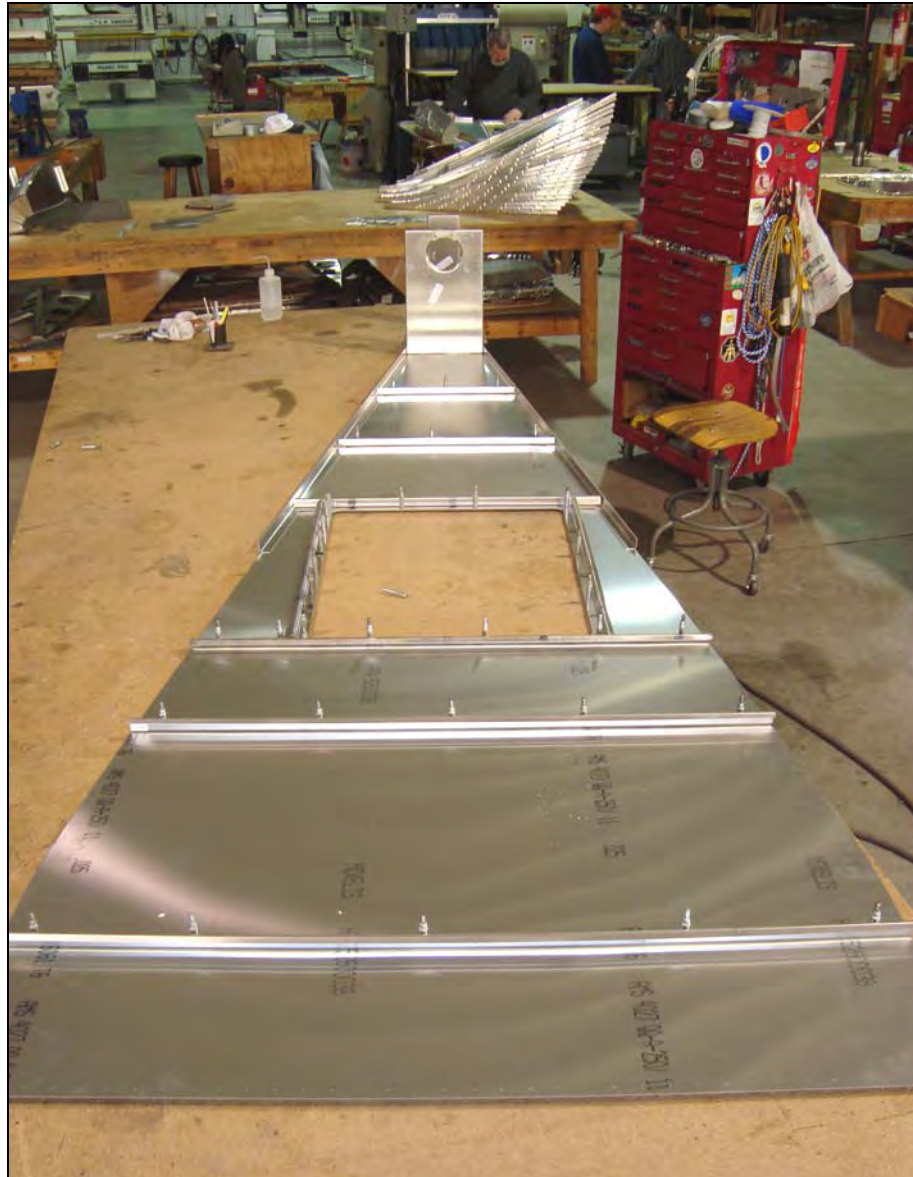


Section 6-B-1 Fuselage Bottom Skin Horizontal Tail Frames



This manual has been prepared for assembly of the rear fuselage. This photo assembly manual is intended as a supplement to the drawings. If there is any discrepancy between this manual and the drawings, the drawings supersede this manual. For more information on building standards and allowable tolerances see "Construction Standards for Zenair Light Aircraft" available from Zenith Aircraft Co.

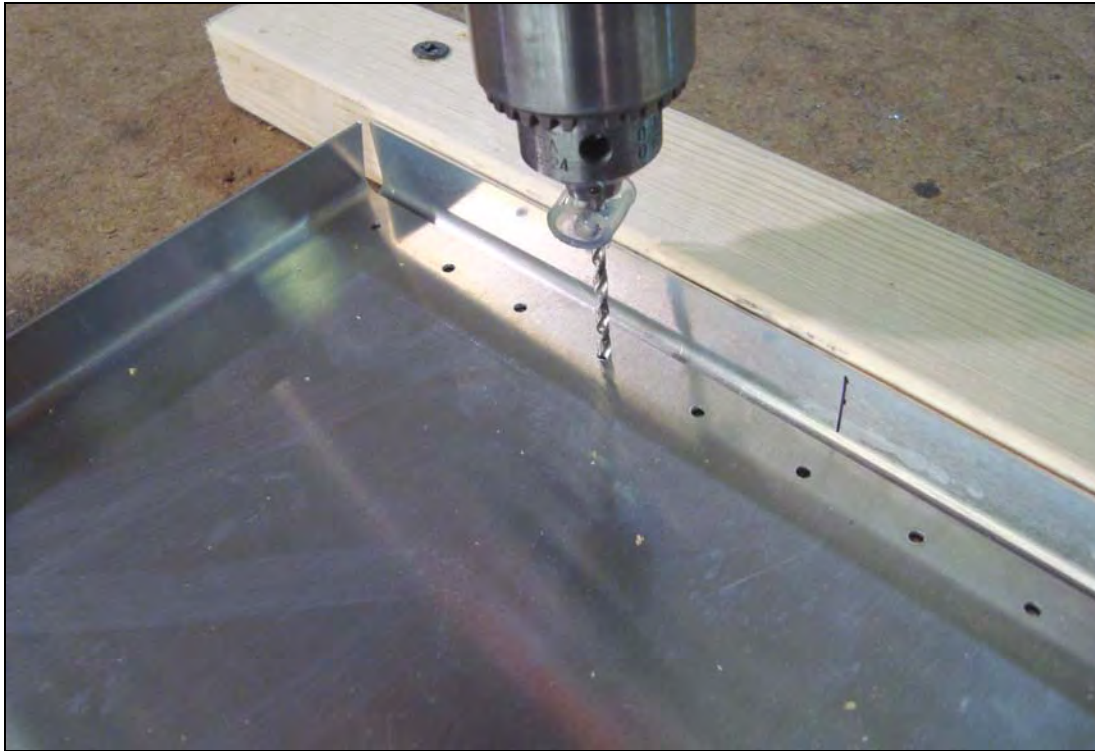


Make a simple jig by screwing 3 boards to the workbench. The first 2 boards (2x4 or 1x2 boards approximately 2ft long) are at 90 degree to each other (to butt up against the side and top flange of the H.T. Frame). Screw the third board at 376mm from the top, square to the side for the Front H.T. Frame 6B1-1.



P/N: 6B1-5
Angle

Draw the aircraft center line flanges of the Angle.



P/N: 6B1-1
Front H.T. Frame

Mark the aircraft center line on the bottom of the H.T Frame. Line up the aircraft center lines on the H.T. Frame and the Angle.

CHECK: The bottom flange of the angle is square with the side flanges of the H.T. Frame.

Back drill to A5 and Cleco.



P/N: 6B1-2
Rear H.T. Frame

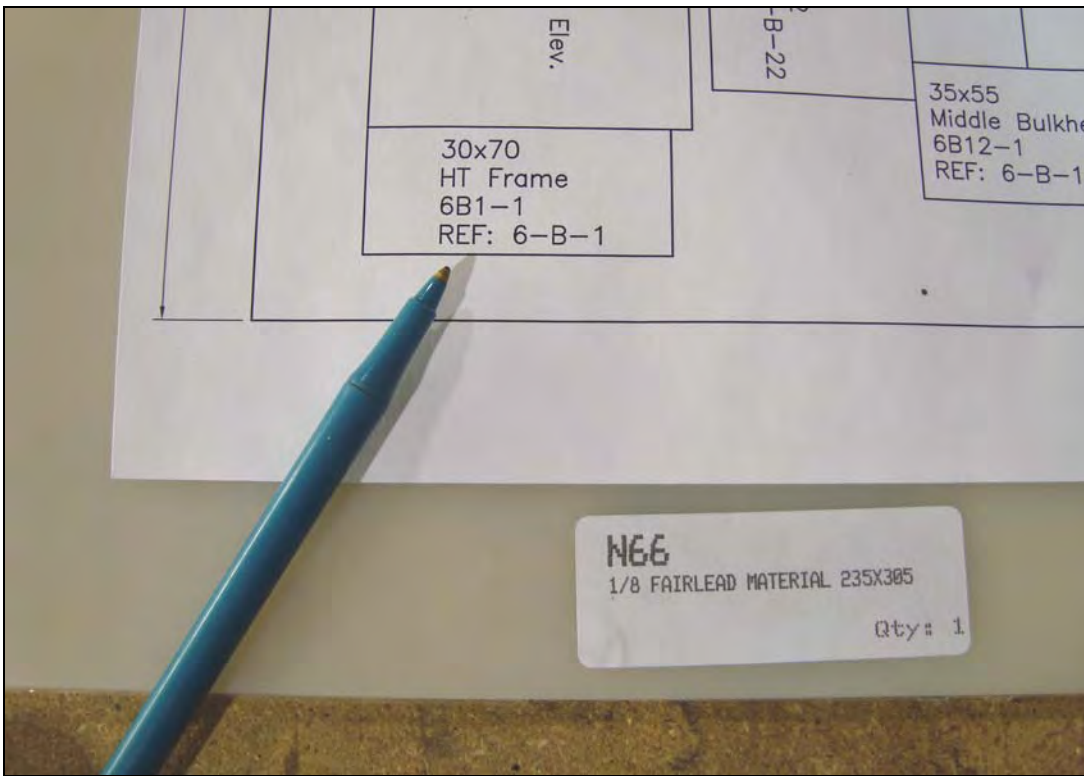
P/N: 6B1-6
Angle

Reset the jig width to 362mm. Mark the aircraft center line on the H.T. Frame and the Angle.



Check: Be sure the Angle and H.T. Frame are against the jig to ensure the Angle is properly positioned.

Align the aircraft center line on the Angle and the H.T. Frame. Drill to A5 and Cleco the Angle to the H.T. Frame.



P/N: N66
1/8" Fairlead Material

Layout and cut a 30mm x 70mm Fairlead from the supplied Fairlead material.



Draw a line 10mm from the top of the Fairlead. Center the Fairlead on the Front H.T. Frame. Position the Fairlead so the line is visible through the predrilled holes in the H.T. Frame. Back through the H.T. Frame into the Fairlead to A5 and Cleco.



Edge marker block
P/N: # 6352
www.averytools.com

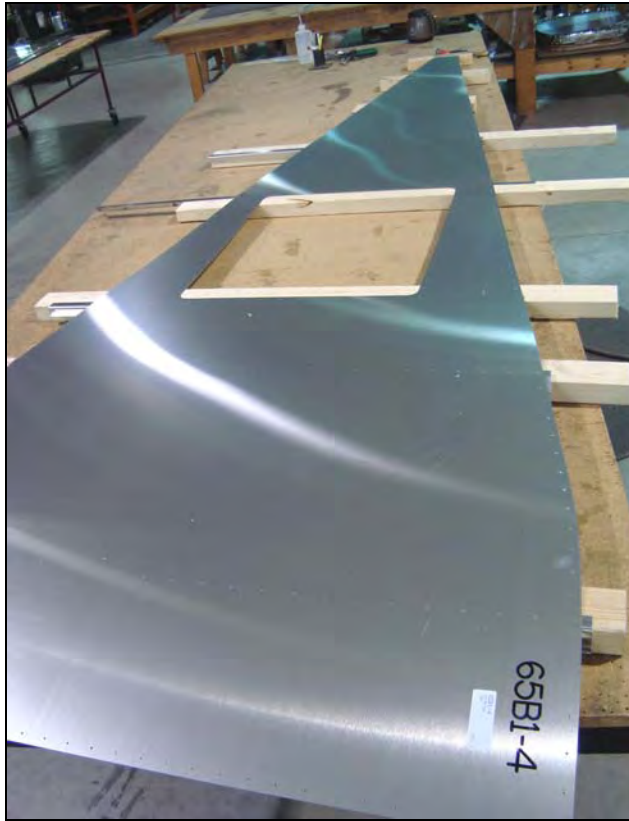
Mark the flange center line on the bottom and side flanges of the H.T. Frames as well as the bottom flange of the Angles.



Trace around edge of flange lightening hole.

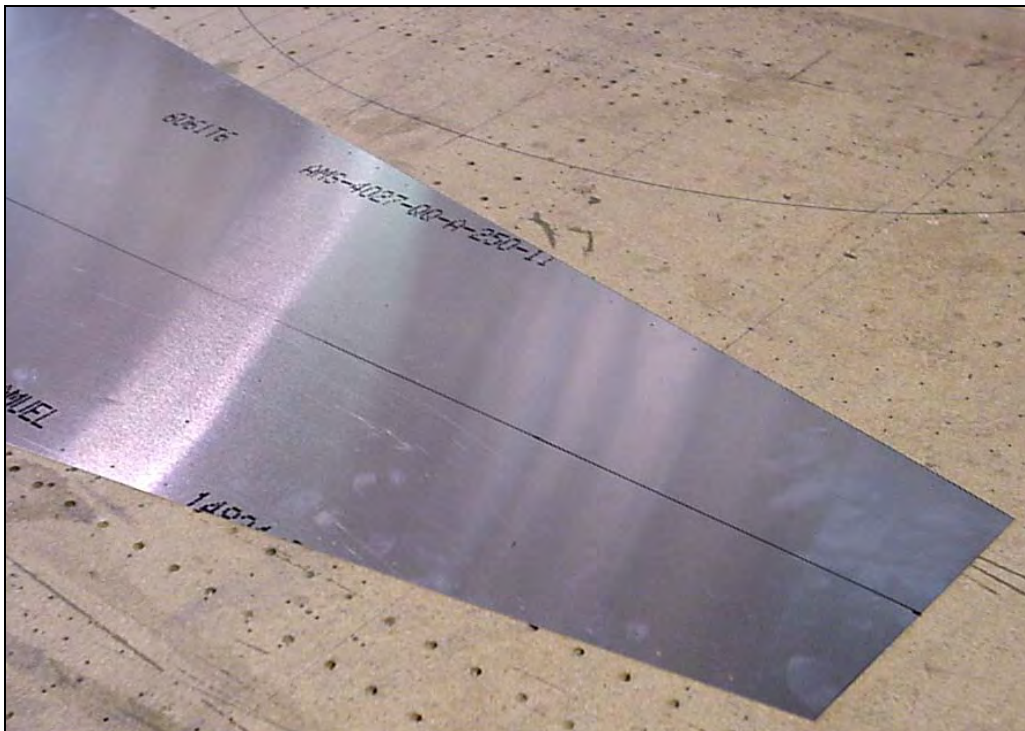


Cut the bottom of the fairlead on the line to match the curvature of lighting hole.



P/N: 65B1-4
Bottom Skin

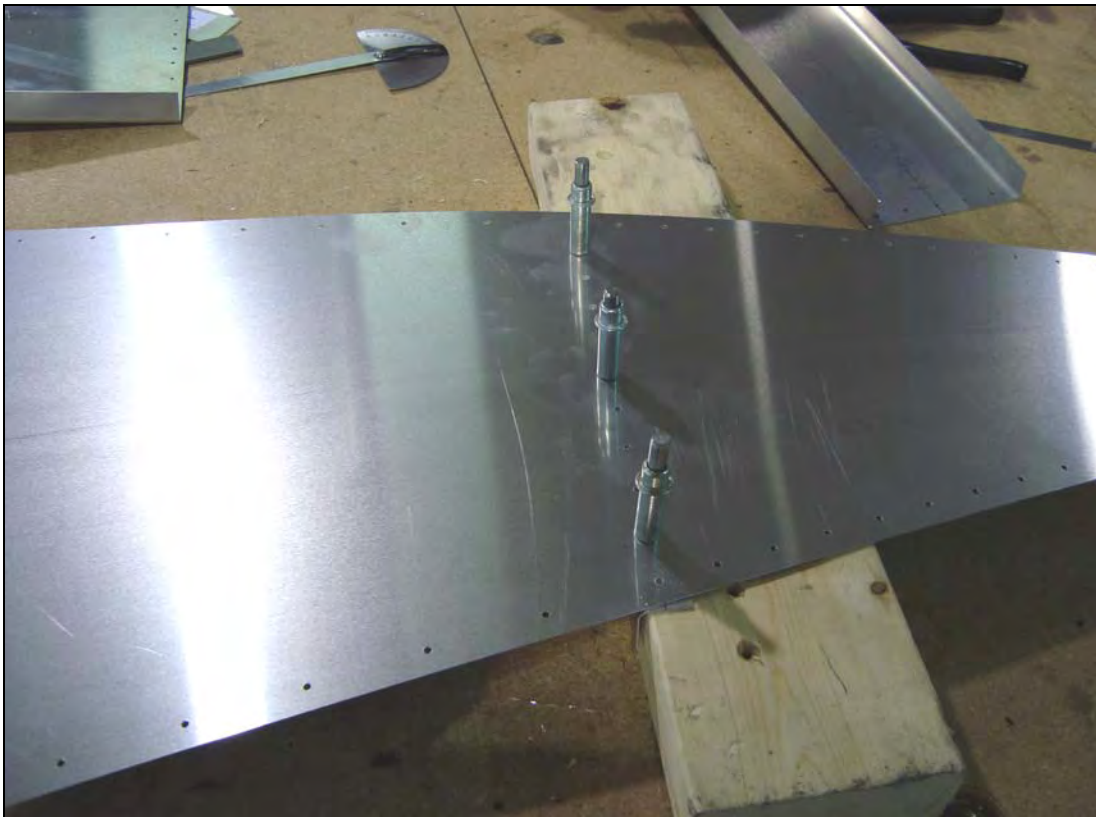
Use several pieces of 2x4 to lift the skin off the table to make it easier to drill into the stiffeners.



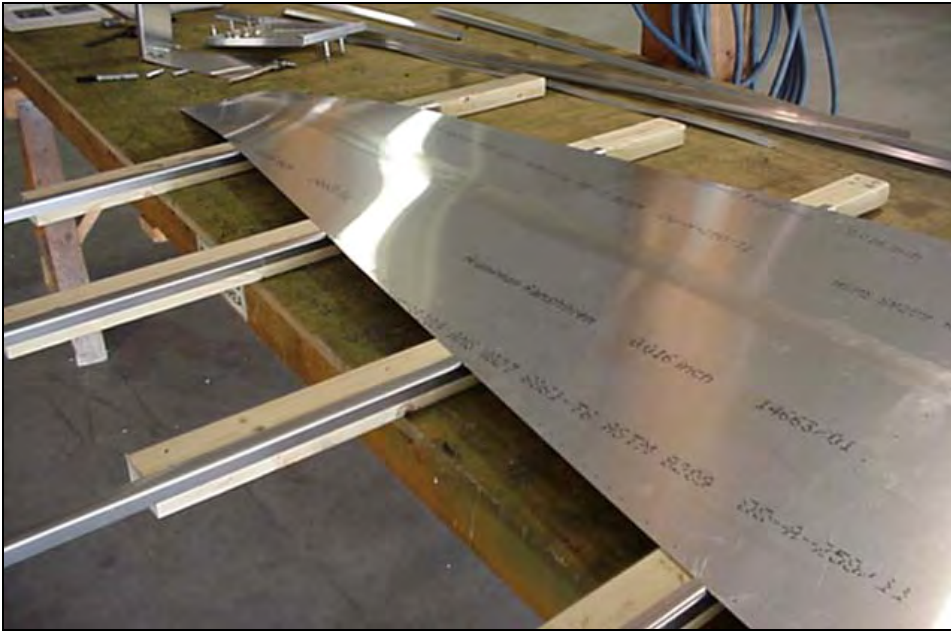
The fuselage is symmetrical along the aircraft centerline. Mark the centerline on the Bottom Skin 6B1-4.



Draw the aircraft center line and a line down the flange of the Angle (6B1-6). Align the aircraft center line on the Bottom Skin and the Angle. When the flange center line is visible through the predrilled holes in the Bottom Skin, clamp and back drill through the Bottom Skin into the Angle; then cleco the Angle to the Bottom Skin.



Follow the same procedure for the Front H.T. Frame Angle (6B1-5).



First mark the center line on one flange, drill one end hole in the L angle approximately 20mm from the end. Then place the L angle over the side of a 2 x 4, slide it under the skin and Cleco through the corresponding end hole. Back drill when the flange centerline is visible and Cleco.

Reference: 6-B-1 the bend is towards the front.



Trace the edge of the skin on the stiffeners, and remove stiffeners before cutting. TO CUT: first do a rough cut approximately 10mm from the line; snip in from both flanges and crack angle apart to make the final cut. Use a file to remove any burrs or rough edges.



Cut a Z Channel to fit between the Z Channels surrounding the access hole. Draw a center line on the flange of the Z Channel and position it on the skin. When the line is visible through the predrilled hole in the skin, back drill to A4 and Cleco.