

Section C75-FA-2 Top Fuselage Skin & Rear Fuselage Assembly



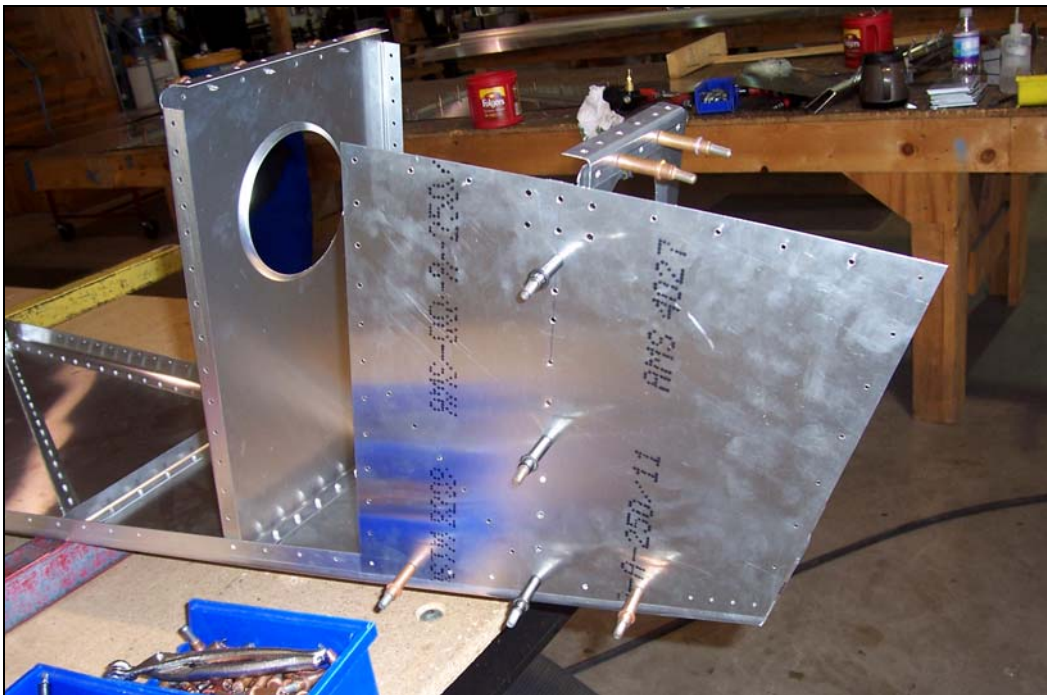
This manual has been prepared for assembly of the rear fuselage supplied with match drilled parts. This photo assembly manual is intended as a supplement to the drawings. If there is any discrepancy between this manual and the drawings, the drawings supersede this manual. For more information on building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



P/N: C75F2-1
Top Skin

Install the lateral L angles and diagonal L angles to the Top Skin as previously done on the other Rear Fuselage Skins. The lateral L angles overlap the Longeron rivet lines. The diagonal L angles do not overlap any other parts.

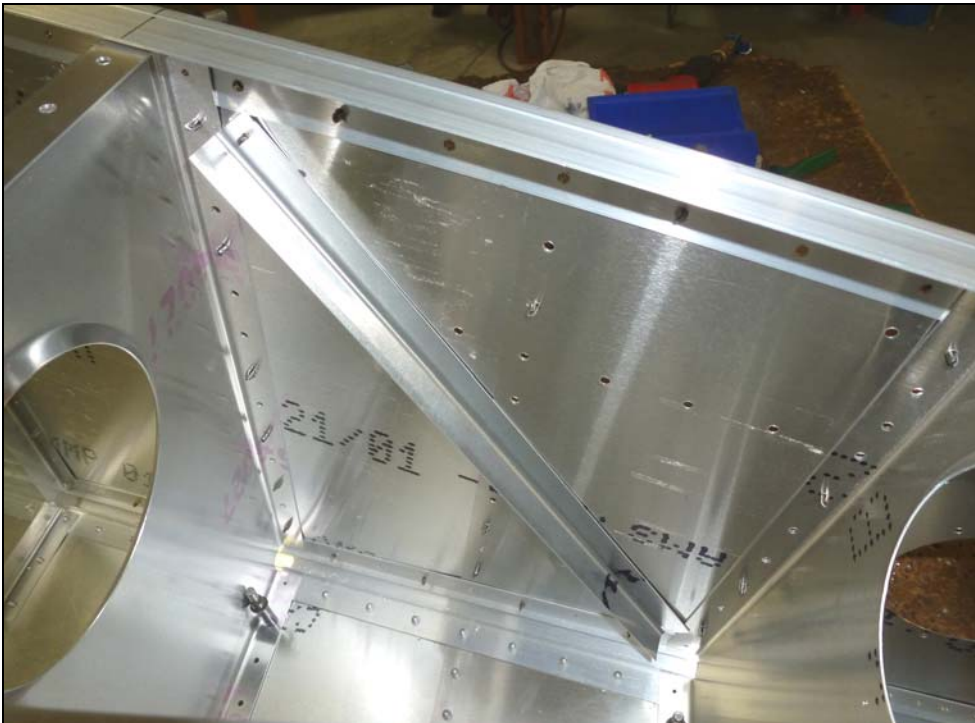
Reference: See drawing C75-FA-2 for L angle locations and orientation.



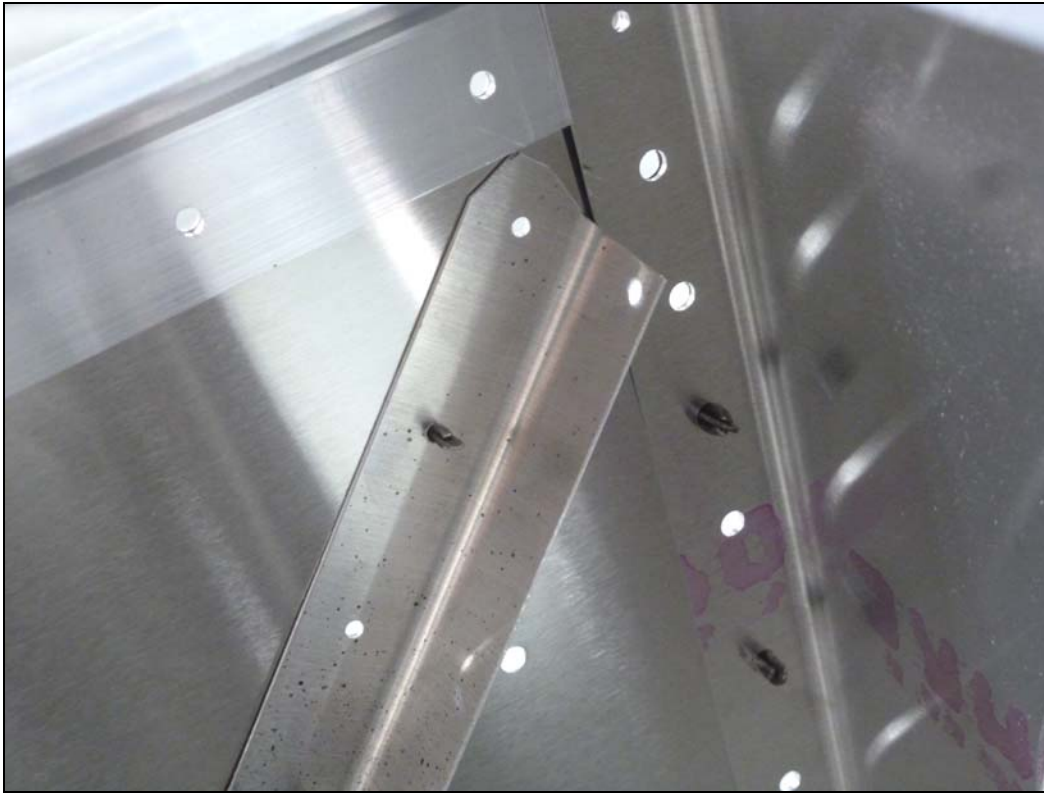
Cleco the Rear Side Skin to the Rear H.T. Frame. Check the bottom of the Rear Side Skin to be sure it is positioned correctly on the Longeron. The Skin edge should be against the lip on the Longeron at the start of the radius. With a #30 drill bit, back drill through the Rear Side Skin into the Longeron and Cleco. With a #20 drill bit, expand the holes through the Rear Side Skin into Longeron.



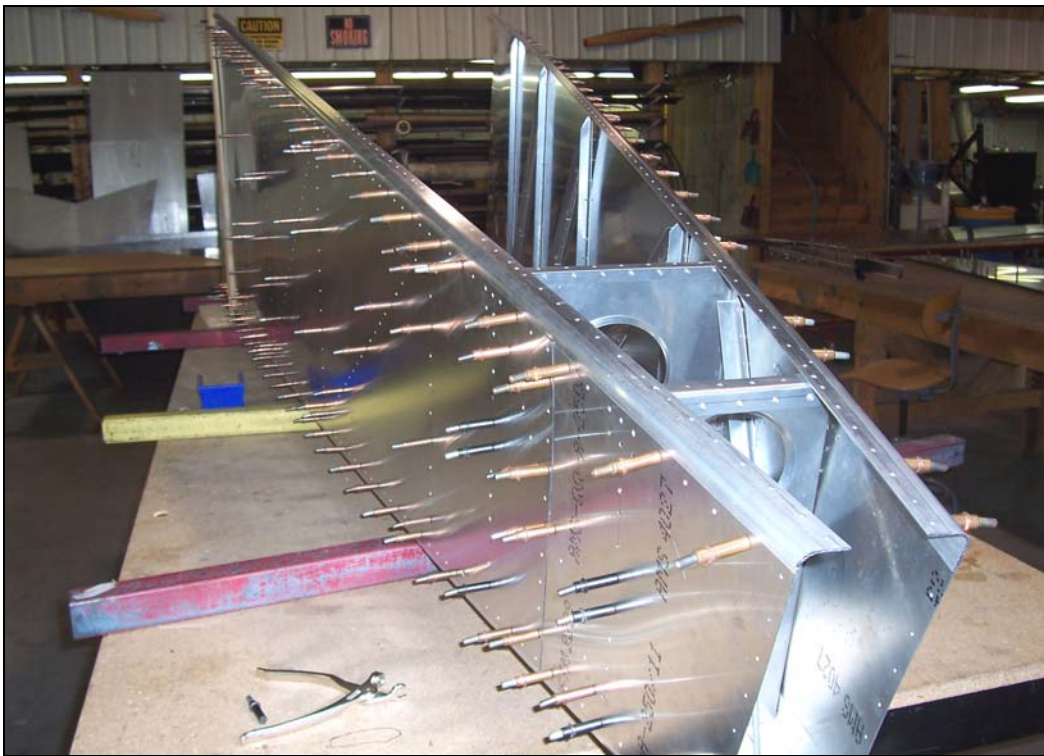
Cleco the Side Skin to the Forward H.T. Frame and to the Rear Side Skin. A 2"x4" has been screwed to the work bench with another board screwed to it to support the side skin. Check the bottom of the Side Skin is positioned correctly on the Longeron, the Side Skin should set against the lip on the Longeron. With a #30 drill bit, back drill through the Side Skin into the Longeron and Cleco.



Cut an L angle to fit between the H.T. Frames on a diagonal. Draw a center line on one flange and position it over the holes on the Side Skins. With a #40 drill bit, back drill through the Side Skins into the L angle and Cleco the L angle to the Side Skins. With a #20 drill bit, expand the holes and Cleco.



Trim the angles to clear the Longerons and H.T. Frames.





Mark the Longerons using the Bottom and Side skin. Remove each Longeron one at a time and trim using a hacksaw on the rear and front of the Longeron. Deburr and file the edges and replace back on the skins.



P/N: C75F3-4
Upright

Cleco the Uprights on to the Fuselage Side Skin. This will help support the Side Skin at the front.



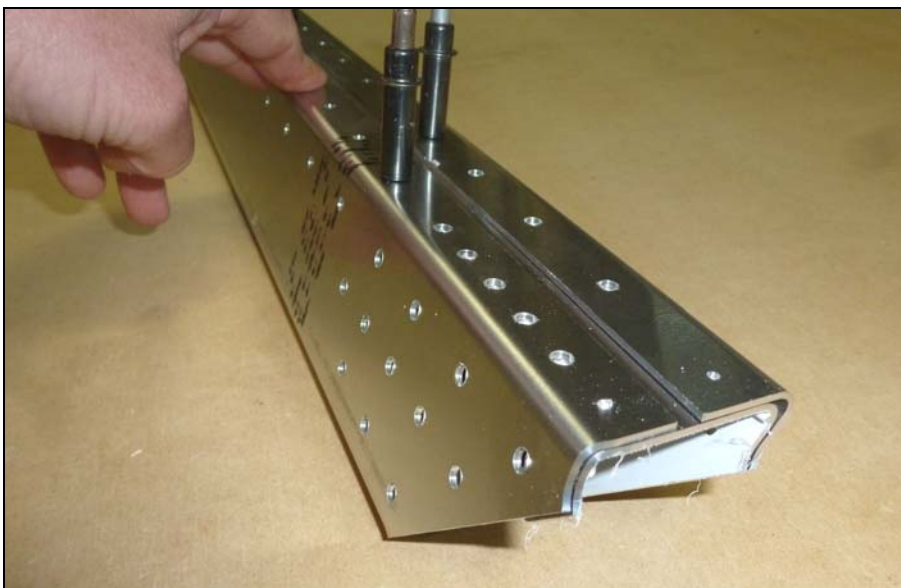
P/N: C75F3-6
Rear Top Channel
Angle

P/N: C75F3-4
Rear Top Channel

P/N: C75F3-3
Top Channel



Cleco the Rear Top Channel Angle to the Rear Top Channel.



Cleco the Top Channel to the Rear Top Channel. The Rear Top Channel fits inside the Top Channel.



P/N: C75F3-1
Upright

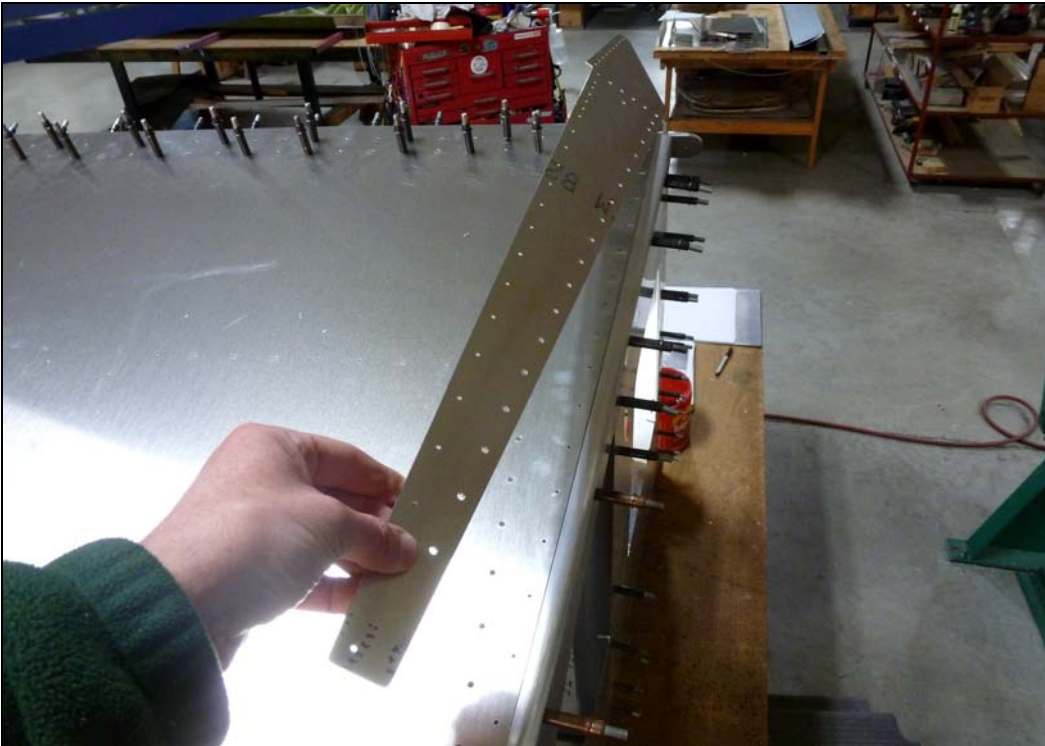
P/N: C75F4-4
Rear Wing
Attachment

Cleco the Rear Wing Attachment and the Uprights to the Channel and Side Skin. This will support the Side Skins.



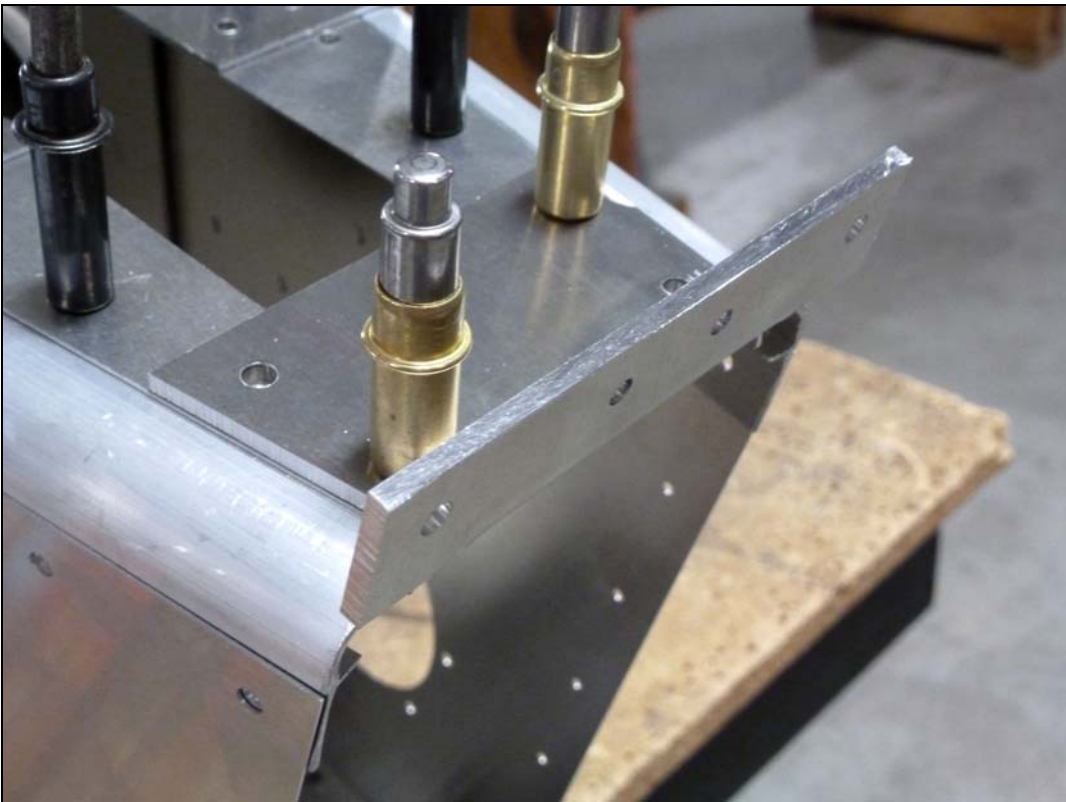
Position the Top Skin on the Rear Fuselage. Cleco the Top Skin to the Top Channel and also cleco the Top Skin to the H.T. Frames at the rear. With a #40 drill bit, back drill through the Top Skin into the Longerons. Start at the rear and work forward and Cleco every third hole. With a #30 drill bit, expand the holes through the Longeron. Expand the holes to #20 at the rear and front section. See Drawing C75-FA-1 and C75-FA-2.

Check: Make sure the Top Skin is against the lip on the Longeron and not on top of the radius of the Longeron.



P/N: C75F4-3
Top Doubler

Cleco the Top Doubler to the Top Skin.



P/N: C75R3-5
Upper Fin
Attachment

Cleco the Upper Fin Attachment to the Rear Fuselage using 3/16 clecos.



P/N: C75R3-6
Lower Fin Attachment

Cleco the Lower Fin Attachment to the bottom Rear Fuselage.



P/N: C75R3-6
Lower Fin Attachment

Position the Tie Down Ring in the center of the Lower Fin Attachment.

This is a good time to dismantle the Rear Fuselage and deburr, apply corrosion protection and rivet the Rear Fuselage area. See drawing for correct rivet size.