21/07/2017 - Stiffeners and aft top fuselage skin drilling.

Category: 3.9b. Top Fuselage
Published: Monday, 18 June 2018 06:57
Hits: 1130

To increase the amount of material to be primed in my next batch, I decided to move on the the next step of construction which is the preparation of the aft top skins.

Before the skins can go on, you have to cut the J-stiffeners F-786A-R and L.
These stifferens have been cut to length some time ago and now it's time to cut the sides of so that the last part of the stifferener can slide nicely in the bulkheads.
It's the same process as we needed to do some time back when we worked on the lower and upper fuselage stiffeners.

Marked distance, drilled hole, cut back the sides to the hole with the disc cutter and finished it of with the die grinder and some sanding paper.

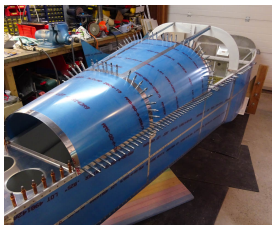
When both are prepared, you draw a centerlin on the top with a pen and position it in place. You don't really have to be worried about the bulkhead positions yet as the aft top skins will pull them in place once clecoed.
Now use some duct tape to fix the location of the stiffeners. (see bottom of picture). Yes, airplanes are constructed using duct tape, ackward isn't it :)

Then slide the F-775 rear top skin in place and cleco it to the longerons and bulkheads. No need to position the F-709 bulkhead yet at this point.

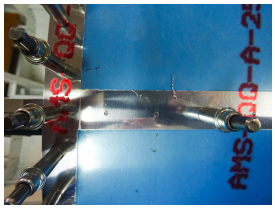
Phoca PDF

21/07/2017 - Stiffeners and aft top fuselage skin drilling.

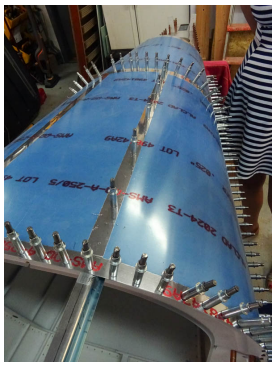
Category: 3.9b. Top Fuselage
Published: Monday, 18 June 2018 06:57
Hits: 1130



Make sure the centerline of the stiffeners is visible over the whole length through the two top lines of the aft skin. Make small adjustments if necessary but make sure the stiffener stays nicely secured in it's position.



Drilled the intersection of stiffener and F-707 first and then moved on towards the back drilling every 3rd hole. Continuously keep checking the centerline through the holes. Drilled #40.



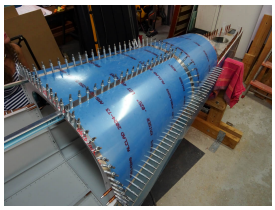
Check on the inside and the positioning of the holes looks good.

Drilled all the remaining "in between" holes for the stiffeners and clecoed. In the next picture, the stiffeners are drilled.

Phoca PDF

21/07/2017 - Stiffeners and aft top fuselage skin drilling.

Category: 3.9b. Top Fuselage
Published: Monday, 18 June 2018 06:57
Hits: 1130

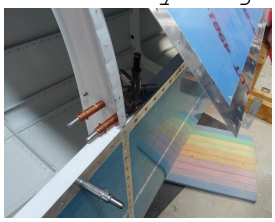


Then matchdrilled the aft top skin to the F-708 bulkhead and to the longeron using the #40 reamer.

Do not matchdrill the F707 line yet. This will be matchdrilled when both aft and rear top skin are on.

Another view from the top after matchdrilling.

Now it's time to position and drill the F-656 gusset plates (small triangular reinforcements) to the F-707 bulkhead. This fixes and reinforces the F-707 in it's final position.
Removed the clecoes to halfway from the bulkheads and peel the skin back so you get access to the longeron and F-707.

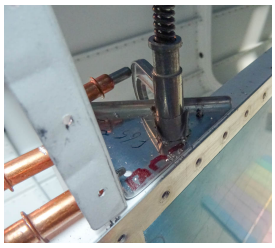


Cleco and clamp F-656 in place and matchdrill through the F-707. Then recheck the positioning of the longitudinal line of the F-656 and drilled using an angle drill #30.

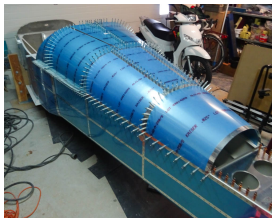
Phoca PDF

21/07/2017 - Stiffeners and aft top fuselage skin drilling.

Category: 3.9b. Top Fuselage
Published: Monday, 18 June 2018 06:57
Hits: 1130



Clecoed the F-7112 aft top skin on to continue the matchdrilling of the forward side.



Another shot from the side. Looks really nice.

Phoca PDF