Dimpling aft fuselage - 29/09/2013

Category: 3.7. Tail Assembly
Published: Friday, 04 October 2013 12:13
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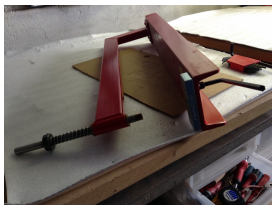
During my visit to Oshkosh, I purchased a c-frame conversion kit from Cleveland tools to be able to use rivetting sets in the C-frame tool.

My C-frame is from avery and the conversion kit of Cleveland is made just for that. I also bought a 12" backrivet set to use with the c-farme tool.

To convert the c-frame, you unscrew the allen screws from the bottom.



This is how the c-frame look as you buy it from avery. There's only a small hole to put dimple dies.

Here is the content of the C-frame retrofit. It's 34$ and in combination with the backrivet set you'll pay 50$

One issue to overcome is that the opening in the bottom (the middle hole) needs to be enlarged to 3/4".

I did this slowly with the unitbit.

Then just screw the new bottom plate in place.

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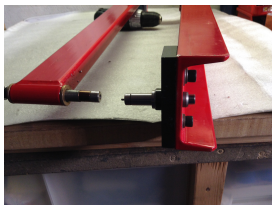
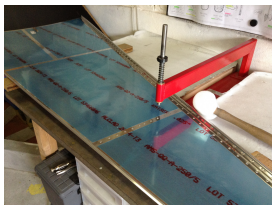


Ok... enough playing for now... It's time for the real work again, dimpling the bottom plate and the side skins of the aft fuselage.

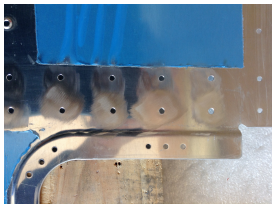


After some advice of Hugo, I decided that some of the holes in the make the whole are stronger than in case of leaving the oval holes.

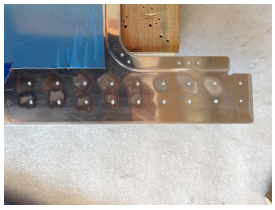
The same applies for the last 3 holes on the aft fuselage skin drilling and the holes are slightly oval. Hence on the area when them.

You can see in the picture below how the holes look like on the F711 section. Some are a bit misshaped but not bad enough to updrill

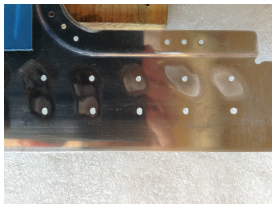
Also notice the scuffing of the skin. I had to do this because the holes were very rough after drilling due to the tension.



This is the line of holes on the F712 intersection, I think you can clearly see the difference.



A bit closer look to illustrate, the hole in the bottom row (middle) illustrates well why I will updrill this to #30.



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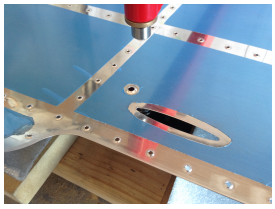
Below you see the last three holes in the aft fuselage skin. Also these above the sharpie mark will be updrilled (there's another holes under the tape which should be left open for the rudder stop)

At the same time, I used the #8 dimple die to dimple the hole where a #8 screw will hold an adel clamp for the rudder cable later. Easier to do it now while the skin is flat on the workbench.



A shot of the skin after dimpling. The bottom row (edge of the bend) are done with the pneumatic squeezer. It's too hard to do it with the c-frame tool when you are working on your own.

Dimpled the back

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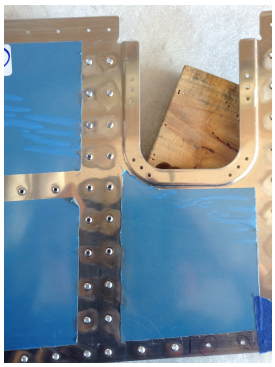
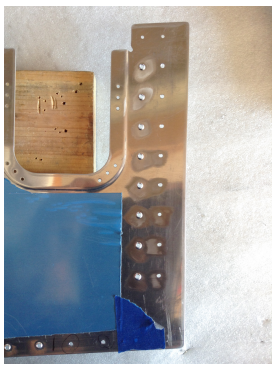
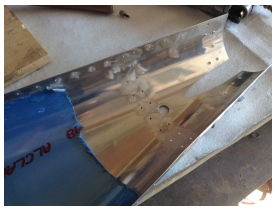


And left open the last row as I will updrill them later after re-assembling the aft fuselage.

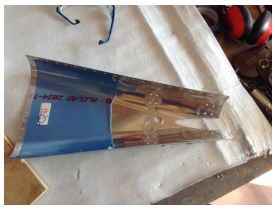


Then scuffed the holes on the rear fuselage skin. Same reason, some scratches by forcing the skin in place and some rough holes after drilling.

These small blue rotary discs in the die grinder take quick care of that.



And finally, dimpled the rear skin.



Next, I will re-assemble the skin so I can updrill the #30 holes.

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