# Aft fuselage rivetting - 02/11/2013

Category: 3.7. Tail Assembly
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**UPDATE 11/2016: In the article below, you will see that I rivetted F-729A bellcrank rib to the F-778 bottom skin. Do NOT do this now ! In the enthousiasm of rivetting you tend to do as much as seems possible at the moment. However, you still need to be able to remove the F706 fuselage bulkhead later when mating the center and aft fuselage toghether. You matchdrill, deburr and dimple those lines later. With what I did, I was unable to dimple the skin and 706 bulkhead individually around the center bottom and had to dimple the material squeezed together as I couldn't remove the rib anymore. It's also easier to dimple the second line just behind the F706 if the 706 can still be removed.**

After a lot of prepping and drilling and priming and cursing about the tail wheel assembly, it's finally fun-time again.

It's rivetting time !

First you rivet the bulkhead lines. Make sure you don't rivet over the line of the middle j-channel. You still have to be able to pull away the upper section to insert the longeron later.

Also rivetted the forward lines of F729A and F728A. It's not a big deal, just a lot of rivets to hammer.

One thing to pay attention about is the rivets on the bulkhead lines. The flanges of the bulkheads are slightly at an angle. to get nice straight and flat rivets, you'll need to keep your bucking bar and an angle too. It sounds obvious but for some reason, the visual apprearence makes you tend to want to keep the bucking bar straight with the web of the bulkhead. A good tip and trick is to first put your bucking bar flat on the side skin, note the angle you have with the web and move the bucking bar in the same position over the rivet. that guarantees nice rivet heads. I had to drill some out first before I got to that point.

It is also worth using a tungsten bucking bar with an angle on one side. The rivets in the corners near the bulkheads are hard to set with a straight one.

I am rivetting the aft fuselage upside down. This is much easier then having somebody with the gun on his back all the time. You just have to slide under the aft fuselage and can "easily" buck from the inside. I put easily between quotes because you will notice that after 50 rivets, you won't call it easy anymore. Expect some muscle pain the day after by manoeuvering in all kind of positions inside. It's better



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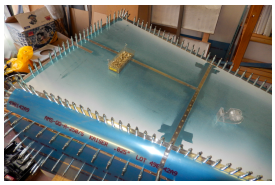
here to do multiple sessions of rivetting.



Oh yeah... this baby is never coming apart again. A very rewarding thought.

I'm stilling trying to get my kids interested in the building process. They start getting at an age where the intrest for mechanical work grows. So I pulled out some scrap parts and did some drilling and deburring and dimpling.

Here's Robin carefully checking alignment on the drill spot.

And the actual drilling

Deburring... And a little hint on protection and safety.



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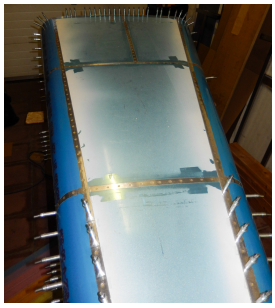
Then Matthias dimpled the plate using the squeezer.

That made a perfect practice plate for rivetting to try some rivets with a new rivetting assistant.

After all the bulkheads, shot the long line that attaches bottom and side skin. I did this until the F708 bulkhead. I still have some work on the tail wheel fork mount so I need to make sure I can still slide that in later.



Side J-channels rivetted also until F708

An inside look.



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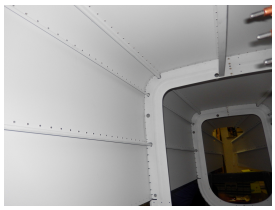
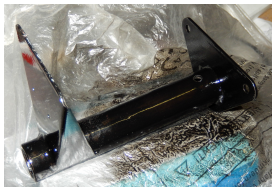


I had spray painted the tail wheel mount before but for some reason (double painting when already dry), I had some paint peeling off.

So I sanded the whole thing again and started all over. This time the result is satisfactory so I can install it now betweene the tail skin and F711 and F712.



But that's for the next session.



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