16/02/2020 - Wing closing and inspection - 4.5H

Category: 2.8. Closing skins
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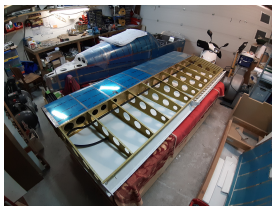
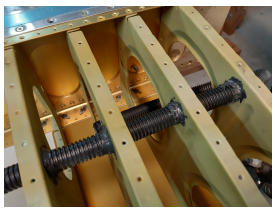
Wing closing time... These have been in the cradle for so long. One of the next milstones is mating the wings. For this I will need to bring the whole plane out on my patio to assemble. Before we can do that, the bottom wing skins must be rivetted. I had to leave these open because of the inspection by the belgian aviation authorities. I got green light after inspection so now I'm ready to start rivetting.

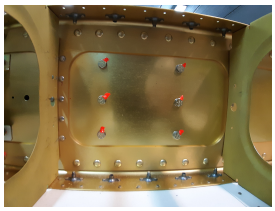
The finishing kit box comes in very handy as a table to support the wing.



First I started inspecting the wing interior for remaining tasks. One of the things I recently found is that many people put some RTV on the wing ribs and conduit in order to keep them from moving.



Next I found out that I didn't put the middle AN bolts in on the fuel tank Z brackets. Installed those and torqued and sealed all of them. Putting torque on bolts in a nutplate is in my opinion not really accurate as the nutplate sometimes is soo thight that the bolt isn't set yet and the wrench already clicks on 25 inch/lbs because of the resistance of the nutplate. I put them in completly and then applied the torque. Inspected and double checked all bolts were in place. Also installed all 8R8 countersink screws that hold the tank to the spar.



I noticed SB 16-03-28. This talks about annual inspection of the aileron hinge for cracks on the rear spar. The SB says it's not necessary to replace on finished wings. My brackets are already rivetted but the skin is still off so the bracket is still very accissible. If you read through the SB, it's actually quite

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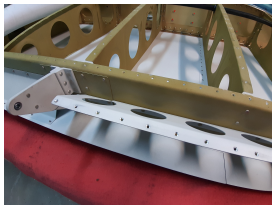
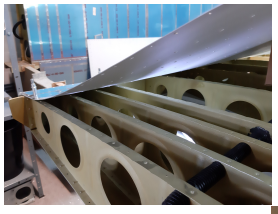
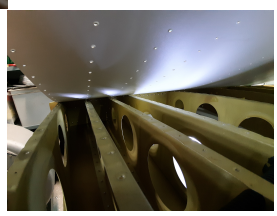
challenging to apply this on finished and closed wings so I decided to remove the brackets now and order the parts for the SB and apply it now that it's still easy to do so. I'll have to be very carefull drilling out the rivets. I sent a mail to support and they told me that larger fasteners will not be allowed by engineers on these rear spar holes. Making an error here is not an option.



Closing the wings is done by rivetting in an L shape. You start on the rear spar wing walks and move up gradually. It's very thight in there and challenging to evaluate the quality of the set rivets.
I purchased a USB android inspection camera and this works really well.





Here are the first set rivets on the rear spar. It's all rivetting blindly on feeling.

some more

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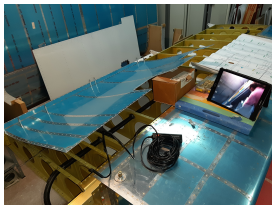
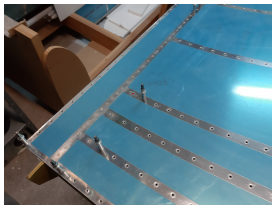
Here you see the camera in place and the android tablet showing the real time image.



This is how far we got in this first session. Not much but at least it's a start.



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