Right wing ribs complete - 01/11/2011 - 5h

Category: 2.4. Main Wings
Published: Tuesday, 01 November 2011 18:34
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The wing ribs of the right wing are finally completed. Both wing ribs prepping took in total 40h.

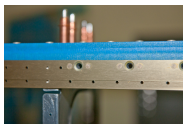
I spent another 4 hours in levelling the spar in the wing jig.

Here is the picture with both lower wing skeletons in the jig and ready for matchdrilling the ribs.

I started the levelling of the wings and it will need some more work tomorrow. To measure the twist in the wing, you hang a plumb bob on the spar to a cleco using a fishing line.

The line is not visible in the picture but you can see the plumb bob. One hangs on the inboard, one on the outboard. Measure the distance of the line to the rib. If both values are the same, there is no twist in the wing.

Another trick to make sure the spar is level is to use a fish line along the predrilled holes in the spar. Due to the weight of the structure, the spar will sag. I used a jack to support the wing in the middle and pushed it up until the fishing line from inboard to outboard showed the same distance over the entire length. Here is a picture of the middle of the wing.



To ensure there is no false reading, slide a washer underneith the cleco so the fish wire is a fraction in front of the spar.

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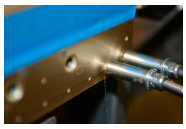

Measuring is a time consuming process but no need to underline the importance of having all square and level before starting to matchdrill the holes.

Tomorrow, co-builder Hugo will pass by to verify some of my work and help measuring. He already constructed his wings so he has some experience.

I'm sure I'm being too precise and exagerating on the levelling, wondering about millimeters but I guess it's safer this way then being sloppy.

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