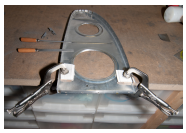
Leading Edge Left Wing - 28/12/2011 - 4h50

Category: 2.4. Main Wings
Published: Wednesday, 28 December 2011 19:48
Hits: 1607

I took this picture when I started working today. Nice view of 'needlehead' .
I'm out of cleco's and it's a real mission to find enough cleco's to install the other leading edge today on the left wing.

Before being able to assemble the left leading edge, had to finish prepping one more rib. This rib prepping with all those small notchesstarts to be a real burden.
I'm clamping the ribs to the workshop table and use small key-files (flat rectangular and round sharp tipped) with sandpaper wrapped around to clean those little notches.



The picture below shows the waste in sandpaper for just cleaning 6 ribs... what a mess.

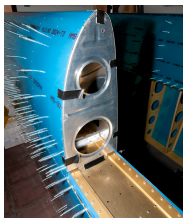
Once the ribs were finished, I installed the leading edge cradle on the workshop again and clecoed the ribs in the leading edge skin. Freed about 60 clecoes and installed the left leading edge on the left wing. The process is the same as for the right wing.
Next step is installing W-408-1 and the joint plate. I have some experience in this now so work went faster this time. It's also a bit easier to inspect the results because there is a square cut-out in the left leading edge skin for the inspection cover plate for the stall warner.

In the picture below, I used gorilla tape again to position the rib and then backdrilled using the 12" #30 drill through the bottom flange of the rib.

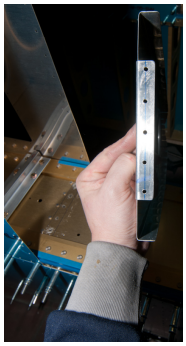
Phoca PDF

Leading Edge Left Wing - 28/12/2011 - 4h50

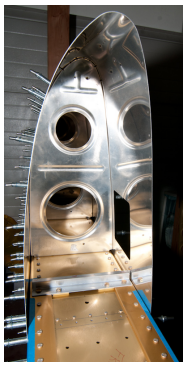
Category: 2.4. Main Wings
Published: Wednesday, 28 December 2011 19:48
Hits: 1607



The result is very pleasing.



Cute shot, it shows the inner rib, the tie down reinforcement plate that also holds the brackets for the aileron bellcrank and you can clearly see the opening in the skin on the right side for the stall warner access plate.

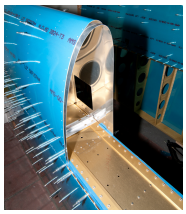


To joint plate is a 38" long flat piece of aluminum sheet. It is straight and needs to be bent before it can be installed between the skin and the rib.
The easiest way to do this is by pre-bending the joint plate before installing. I used the curvature in the skin to help bend the plate. This works fine.
The piciture below shows how I did that. The positive side of doing it this way is that you automatically get the bends in the right location and the ends left and right can be positioned to leave the same gap between joint plate and spar.

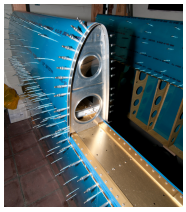
Phoca PDF

Leading Edge Left Wing - 28/12/2011 - 4h50

Category: 2.4. Main Wings
Published: Wednesday, 28 December 2011 19:48
Hits: 1607



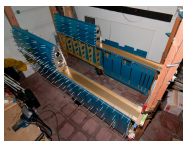
After marking the joint plate with a line at 1/2" outboard, installed it so the line is visible through the prepunched holes and inserted the rib.
After matchdrilling, the leading edge inboard rib is complete. The holes came out bit closer to the web then with the right wing but acceptable. It's just going to be more difficult to buck when rivetting.



Also backdrilled the other ribs through the spar.

I will matchdrill the rest of the skin to the ribs and spar by end of the week.

And finally, an overview shot of the workshop as per end of 2011.
I will take a couple of days rest now and restart with full courage in 2012.



Phoca PDF