

Category: 2.6. Ailerons

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The final steps of the wing work have started.

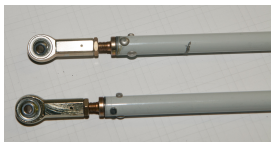
I still had to rivet the small aileron pushrods. Set them with -11 rivets (the -12 in the manual are too long and will tilt over.

Hugo helped me with this task as many people mess this up. He already did it on his plane. We used the c-frame and a backrivet set to set these rivets at 60PSI.

The first one went fine in the beginning but then slipped out of my hand and flattened the rivet head on the side. Bad bad bad. We continued on the other rivets and those all turned out fine.

It took us a lot of time to remove and drill out the AD4-11 rivet. Part of the rivet was left in the tube but we somehow managed to drill it out without ruining the bars.

The rivet is slightly too small after resetting. I suspect the rivet to have expanded partly in the tube. Nevertheless, it has an acceptable size and it will serve it's duty.



Installed the female rod end bearing on the pushrods.



Then installed them on the wing. The picture below shows how the rod end is attached to the aileron.



Installed the aileron bellcrank. I didn't torque these bolts yet and used castle nuts or nylon nuts with additional washer to save the nut for re-use later. Nylon nuts should only be used once.

This assembly will probably still have to come off for transportation so decided to install this only temporarily.

Adjusted the push rods to the correct length using the aileron bellcrank jig and the aileron in it's neutral position. This also will be done once the final assembly takes place so I don't worry too much about it for now. It's just kind of cool to be able to move your aileron from the inboard side of the wing.



overview picture showing the aileron pushrods.



My laziness has no limits. I discovered that I can actually use an electric drill at screwdriver speed to turn a bushing in the pipe cutter. I had to make a lot of small bushings and turning the pipe in the cutter got boring.



Once the bushing is cut, I had to make it a tiny bit shorter. I put the bushing in the bench drill and put a small key-file under the drill head. Slightly push the drill press down and you start to take away some material from the bushing (perfectly perpendicular) You can finish it off in the same way some later using some sandpaper stapled to a block of wood.



Allright... next task... Oh yes, That big AD6 rivet still had to be set.

This is a left over from a screw-up some weeks ago. We managed to have a nice hole again without cracks but had to enlarge the hole to #12, which is the size of an AN3 bolt or an AD6 rivet.

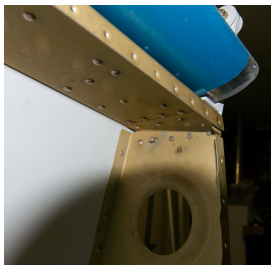
Some people gave some advice to use a bolt. The stubborn donkey in me decided to give it a try with the AD6 rivet.

The picture below shows the size of the AD6 rivet. It's a monster :)

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We gave it a try with a test rivet in a test plate and managed to make it look well from the first attempt using 60PSI and a long burst of about 4sec.

So we moved to the real part and tried to set the rivet. The result in the picture below.

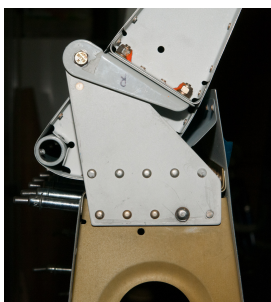


Bad bad bad... The shop head looked fine but the manufactured head was all beaten up. We had to shoot, and shoot again and again and again. In the end, you ruin the head.

Being afraid of messing up the hole again, I left it in.

The next day, Hugo came over and also had his doubts on the acceptability of this so we (fortunatly) succesfully removed it without enlarging or damaging the hole.

We gave it another test try and a new go at the real piece and managed to set an almost perfect AD6 rivet. A little smiley on the bottom but nothing to worry about and certainly not to drill out again. This certainly looks uch better then the first attempt.



That completed the work on the wings. I did some cleanup of the shop and took this picture. The last picture with the wings in the main

Various remaining jobs - 24/12/2012 - 3:30

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spot.

