

Category: 3.8. Center Fuselage

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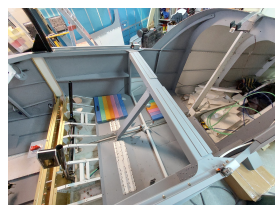
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I wanted to rig up my elevator pushrods so that I could have a better idea about the space for additional electrical wiring and obstructions in the forward tunnel.

Looked everywhere for the pushrod that goes from the stick to the bellcrank only to find that I couldn't find it anywhere.

Until I found that big tube on my hardware shelf for what I thought for a long time : why did they deliver that and where would it be used ???

Turns out, I didn't fabricate the forward pushrod yet... dummy... Well, it brings a new small project to the table that reminds me of those sweet days of metal working.



The pushrod attaches in the rear to this elevator bellcrank. The hard part is that now that the plane is on it's gear, nothing is level anymore, so it's hard to tell that the bellcrank is in the full vertical position or not.

When I initially measured, I measured with a straight angle from the top of the F729-B angle attached to the F729-A bellcrank rib. The angle is slightly angled in relation to the full level position of the longeron so it's not the best of references either when measuring. The question I asked myself is if the bellcrank needs to be perpendicular on the bellcrank rib, or if the vertical plan should be aligned according to the rivet line of the F707 fuselage bulkhead (which in case the longeron is level, is 90° angled on the longeron). Another thing to consider is that the pilot stick is not vertical, it's tilted slightly forward and that also influences the length of the pushrod.

I'm probably overthinking this again but it's the kind of things that keep me busy and make me lose a lot of precious time.

I finally went the way that Vans tells you to do. Put a socket in the opening on the F729-A rib and get it as centered as possible. That's the vertical position. From what I can tell, it looks like my idea of F707 rivet line alignment is probably the correct one.

Then I started thinking about the length. Vans makes you cut off at 45inch 15/16. I found the measurement on the F790 to tight and wasn't

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sure to be able to get the "half way in" rod end bearings on both sides on the F790 so after some measurements putting it in and out of the plane, I decided to go with couple of 16's longer on the front rod. Even with that extra length, the rod end bearings still go in and there's play for adjustments.



Then started drilling the elevator pushrod for blind rivets holding the threaded rod end on the tube.

The blind rivets are evenly spaced and a piece of tape with lines at the required intervals does the trick.



All drilled to #30 for MSP42 rivets.



Other side will follow soon and then it's tube priming time before it can be finally installed

29/07/2023 - Front elevator pushrod drilling and fitting - 2h30

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