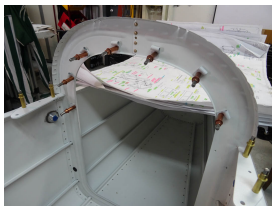
13/07/2018 - Static line bow construction and rivetting bellcrank - 3h

Category: 3.9b. Top Fuselage
Published: Monday, 23 July 2018 10:04
Hits: 1185

Installing the static line on the F-708 bulkhead is easier to do now than after the skins are on. It gets really small back there once the skins are on so it's easier to fix the static line now when everything is still open and accesible.

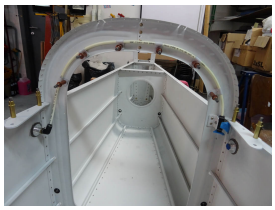
I start by drilling the little angle clips I made earlier. Drilles to #30 for rivets but later realised it would probably be better to use screws to atttached these as it would be easier for maintenance later.



I am using the safeair kit. It's very easy using this kit to release the line from a connector and reinsert it again later.

I measured the required length of the static line on the bow so there would be no tention on the line.

Inserted it in the clips and installed the elbow connector on the static port on the passenger side of the plane.



Detailed view of the connection to the static port. The little ring on top of the elbow is used to release the line from the connector and springs out when you push it back in. All you have to take care of is that the cut of the plastic line is nice and at a 90° angle.

On the pilot side, the second static port attaches to the line coming from the other side. I guess there's two ports just in case one gets clogged up with dirt or something. I'm sure there's an even more scientific explanation for this but I'm not that deep in physics as to understand all that. All I know is that the static air pressure is a

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very important piece of information that your instruments need to determine altitude (varrying static airpressure with height) and speed (ram air speed in pitot tube - static air pressure).

I used a splitter T connector to bring in the second port from the bottom and run the sum of the two forward with the perpendicular port. This connector from safeair had the possibility to run a screw throug for attachment. I made a small piece of aluminum angle which I rivetted to the bulkhead. (Closed the existing hole in the bulkead with a AN426 rivet as I didn't need another clip there and drilled to new holes for AN470 rivets. The other arm hold the connector at a height which allows easy and safe routing of the static line underneath the longeron. Positioning here is important as the static line may interfere with the seatbelt anchor line which runs just above.

The blue masking tape patches are just to make sure no dirt goes into the line.

I had some time left so I decided to rivet the elevator bellcrank.

Clecoed it all together and used the pneumatic squeezer to rivet the AN470AD4 rivets.

Overall very nice results (don't mind the mark on the right side? It 's just some brown paper that didn't come off after priming).

This part can be stored for now until the elevator pushrods get installed.

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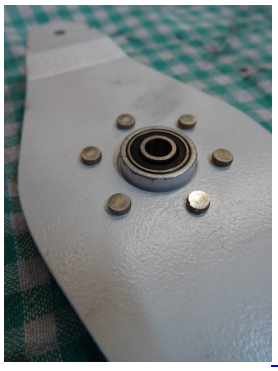

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