02/04/2017 - Rivetting firewall gusset and F704H - 3h

Category: 3.9. Forward and Center fuselage
Published: Wednesday, 05 April 2017 07:48
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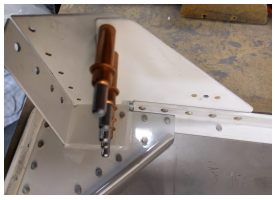
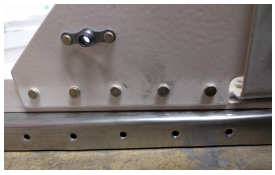
Some small tasks done this weekend.

Rivetted the firewall gussets (F-684) to the firewall angles on both sides. Only the top row on the vertical angle is rivetted for now as the bottom horizontal row gets rivetted in assembly with the F-770 side skin.
The vertical row will be covered by the side skin and there will be no more way to access it later with the squeezer or gun so they must be rivetted before the side skins go on. Also don't forget the nutplate.
I was able to squeeze all of them with the pneumatic squeezer. As usual, by the thickness of my primer, I had to use the longer size rivet to set them.

Inside view of the gusset squeezed on.



Outside view of the manufactured heads.
I will redo the 3rd and 4th rivet from the left. If you zoom into the picture you can see that there are some vertical lines in the manufactured head.
I'm not sure if this is a crack or split on the rivet. It's caused by the fact that I have to set these in two pushes. First halfway through and then to the final size.
The squeezer has some problems setting them completely at once due to the fact that the rivet cup set is too high and the arm cannot full extend at it's full pressure position.
That's why I need to squeeze them in two stages.



then I rivetted the F-704H to the F-770 side skin. This is where the

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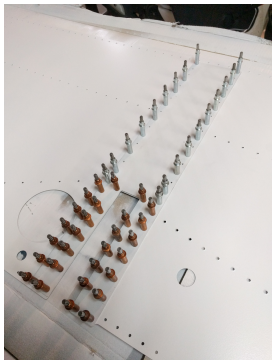
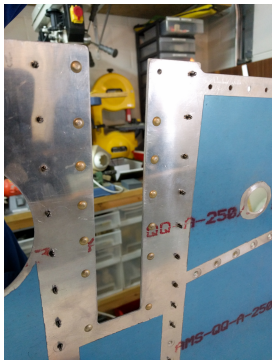
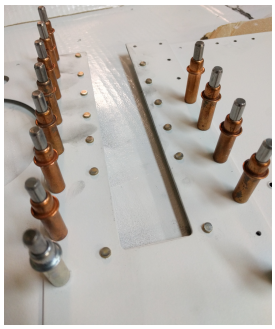
wings mate with the fuselage and at this point, only the rivets on the inner spar cutout need to be set with the exception of one rivet on the bottom forward side.
This rivet will be set in assembly with the bottom skin and can't be done now.



Upside down picture but this gives a good idea of the rivet that needs to remain unset. Note also that these are AN470 universal head rivets and not countersunk. This area is covered by the wing and it's fiberglass fairings so they don't need to be flush with the skin.



Shophead view from the inside.



And same on the right side skin.

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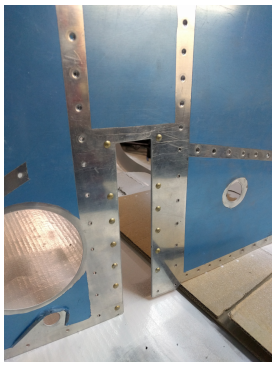

After that I sat the conduit brackets for my conduit routing underneath the baggage area and seating area with LP4-3 rivets. Also set the two rivets to nowhere in the bottom skin that are opened for the brake lines on an RV-7A. I'm building a 7 so just filling these pilot holes with small "rivets to nowhere"

Before I can rivet the rest, I will need to deal with some unfinished business on the rudder pedals. My new nylon blocks came in last week so now I can drill the rudder pedal positions on the aux longerons.

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