21/06/2024 - Wing Deutsch connectors - 4h

Category: 5.3. Systems
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I have been thinking for a while about the installation of connectors at the wing root for wiring of the nav and landing lights, fuel senders, stall warner and Dynon autopilot wiring.

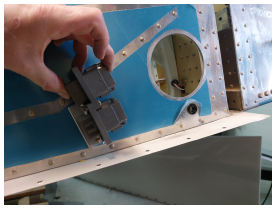
I went through all the debates of having an additional potential point of failure and the fact you will probably never ever remove the wings again.

I initially bought some CPC connectors but these finally looked quite bulky and required a rather big cutout hole in the side rib of the fuselage in the outer seat rib.
I finally found a builder who had used deutsch connectors. These are really nice and are fully weather proof.

The nice thing is that I can mount them on the side of the seat rib using a piece of aluminium angle and be done with it.

The type of connector is DTM deutsch connectors. I bought them at Mouser Electronics. They are quite expensive but worth the price.

In the image above and below you see they can easily be stacked in the narrow space between the side of the fuselage and the inner wing rib. I will install them slightly angled. the connector will insert from the front side and the wiring will penetrate more backwards in the middle of the seat rib.



These are the 2 angle brackets I made to stack the connectors on the passenger right side.
The bottom connector on the passenger side will take the NAV and landing/taxi light wiring, fuel sender wire.
The top connector will have 7 wires from the Dynon Autopilot wiring harnas.

On the pilot side there will be only one connector required.

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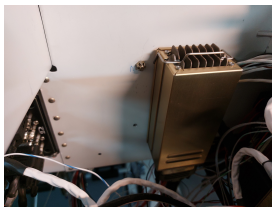
The wiring here is for NAV, landing/taxi lights, fuel sender and stall warner.

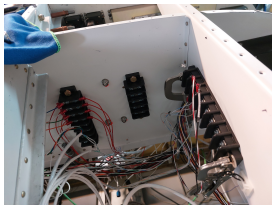
On the front side of the F7105-A sub panel behind the instrument panel, I installed an additional terminal block.You can see the two AN3 bolts holes (one with temporary a castle nut on it) on the left side of the sv-com box.



The is the view from the front.
On the left side I had my terminal block that has the wiring for the trim switch wires on the top, the AP/disconnect in the middle and the NAV lights wires on the bottom.
On the right side you see the smaller new terminal block which will be used for the Aerosun VX landing/taxi light wiring.

On the FWD fuselage rib, you can see another terminal block which is used to split Power wires from the EMS module.

Not sure yet if I will maintain this or solve it in another way as I'm not completly sure yet how many of these split power sources I will need for the sensors.



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