09/08/25 - Fuel and Pressure sender install - 6h

Category: 5.2. Electrical components FFW
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Worked on the installation of the pressure senders on the transducer block.
To start, I had to install the AN fittings in one side of the transducer block. There is one 45° fitting for the oil pressure sender and a 90° fitting for the fuel sender. In the top I will measure MAP pressure and installed an AN816 fitting. These fittings have NPT threads so they need thread sealant on the threads. Installation of NPT threads is done by turning the fitting to finger thight and adding half to 3/4 turn to make it snug. Don't overdo it, the only thing you do is adding stress to the part it's screwed into. The NPT thread is conical so the deeper you go, the more pressure. It kind of acts as tapping set that deforms the hardware as you go deeper and deeper. The receiving part can also break or have deformed threads. That would mean replacing the part if you'd ever have to unscrew it.

I kind of overdid the seal application. there's too much on it but it won't hurt either. Sealant sets by lack of oxygen so it hardens inside the tapped hole but stays kind of "liquid" when it's still exposed to air. I'll clean a bit off the exposed part here when the inner part is cured.

Then installed the plugs on the other side.

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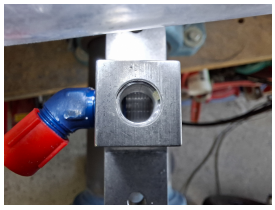
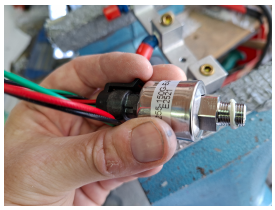
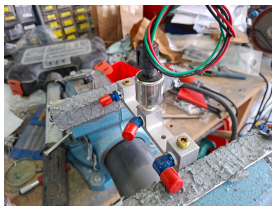
Looking inside, the fitting is set nicely. Make sure it doesn't block part of the opening. (another side effect of screwing in too hard and too deep)



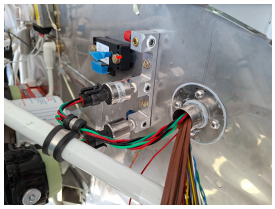
Then got out the 2 pressure senders from the EMS Dynon kit and screwed them into the transducer block with thread sealant applied. When fastening these, use a wrench on the hex part of the sender. Don't turn the body.



Oil pressure sender installed.



Next installed fuel pressure sender and routed the wires through the firewall penetration point. the wires are supported by 2 adel clamps on the engine mount



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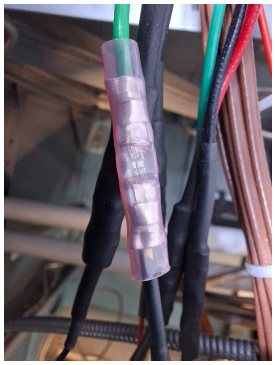
On the inside, use splices to hook up the sender wires to the wires going to the EMS bus bar (pin 17 and 18 shared with all senders and trim motors)

Here is a shot of the crimps before I covered them with heat shrink tube. The other 2 behind the splice already have the heat shrink installed.



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