

Category: 4.4. Landing gear

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Started working on the passenger side brake line. This surely is a lot more fun than the pilot side. The pilot side is short, has only 2 bends after on top of the gear leg and is easy to manipulate.

The passenger side brake line runs across the firewall to the pilot side of the firewall and is a lot longer tube to work with. You can't just flex it around so a bit of pre-thinking and pre-planning is in place here.

After some elaboration, I decided to start at the tyre with the brake loop. This seems more difficult to get it right once all the other bending has been done. So I did the same procedure with some springs over the tube and handbend them in the right shape. This takes a couple of attempts and fine tuning but with the practice from the pilot side, it sure went faster than the other side.

Again, as explained on the pilot side article, make sure you clear the brake disc pad. The bend goes between the leg and the pad, not passed. If you go passed, you will have difficulties getting the wheel pant on later on. It's a tight spot. The brake pad cylinder also has some movement on it and you want your tubing out of the way of anything that can wear them out.



Then the real fun starts. bending it towards the firewall and guiding it to the other side. I've consulted image of other builders but the amount of material out there is scarce and most of them do it in another way.

I opted for the method with adelclamps on the lower bar of the engine mount. This placed the tube slightly higher away from the lower engine mount bar and gives you some extra clearance from the lower engine mount intersection weldings. I can not think of anything that would be in the way in this lower area so decided to go that way. I will place an adel clamp below the shunt and one on the passed first welding near the middle. Than should give plenty of support. The bolt head is close to the firewall but I think it's ok. I'll probably add some high temp RTV on there to prevent any possible chafing in the future.

The initial bending makes it impossible to rotate the tubing. Once the loop is around the wheel, You can almost no longer remove the tubing without removing the wheel itself. As said, bending will have to be done in-place and this make the job a bit harder and impossible without these springs to support the bending. A tube bender is close

to impossible to use here.



I made the bends to clear the hardware steel clamp that hold the gear leg fairing fingers and bend the tube roughly through the back of then engine mount.



The clearance to the gear leg fairing looks good, I can continue working along the line. All has to be fine before you proceed to the next bend. It's probably impossible to come back to a previous bend and change it if other bends are following across the line. You can probably get away with fine tuning but no structural changes.

