

In order to drill the positions of the rudder pedal assembly on the side skin stiffeners, you need the side skins and firewall attached.

That means that I had to re-assemble the forward fuselage once more in order to be able to drill the pedals in place.

Should have done this way earlier but never got to the point. So now lost 2 hours in re-assembling the hole thing. Do yourself a favor and drill these suckers when Vans tells you to do it in the manual.

My son Matthias helped me clecoing and it's always fun when one of your kids comes out to play around with you.

I shot this picture when we were just finished and positioned the pedals.

It seemed like a simple picture at the moment but while I was going through the pictures later, this was kind of a wake-up call... Time flies !

I suddenly remembered the picture I took when I finished my workbench when I started the project many years ago. I posted that picture of Matthias crawling on storage boards as he was 7 then. Now he's 13 years old. Djeezes, I have to speed up working if I want the plane to be ready before they get married :)).



Ok, back to reality. Here's a shot of the clecoed forward side.



The left side view on the plans at DWG37 indicate that the minimum distance of the rudder pedals is at 3 inch from the firewall position. I was looking at this and then decided to go for a different approach.

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Drilling through these nylon blocks with the side skins attached seems like a difficult task where either you don't have enough space to drill and fiddle with an angle drill, or otherwise you have to remove the side skin for rudder each position and be unsure of the exact position or have the risk of moving the nylon block and get out of line.

There is a much better and easier way to do this which is also 100% secure in my opinion.

I put the rudder pedals in temporarily to just verify that my nylon block were in the correct direction before starting any drilling. The nylon blocks are prefabricated and have an angle build into the inside of the brace cutouts to mate with the angle of the side skin. I marked the blocks not to confuse the direction and then took the rudder assembly back out.



With the assembly out, the only thing you need to do now is to measure the 3 inch minimal distance marker from the firewall. For this, the firewall has to be installed on the side skin as the side skin stiffener doesn't touch all the way on the firewall. The only way you can know what the 3" distance is is to put a ruler and put it against the firewall and mark the 3inch mark. Now you are ready to remove the side skin stiffeners from the side skin and put them on your workbench.



Now mark the other positions with the 3 inch mark as your reference point.

I followed Dan Checkoway's measurements and made provisions for four adjustment positions, at  $3 \frac{1}{16}$ ",  $4 \frac{1}{8}$ ",  $5 \frac{3}{16}$ ", and  $6 \frac{1}{4}$ " aft of the firewall.

I'm kind of guessing here and going with what other people have done before because it's kind of impossible to have an idea how far you will be sitting in the seats and up to which point your legs will go.

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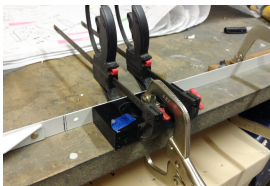
I till find it kind of far off and hope I'll be able to reach that far but as many have done it before, I'll go with these dimensions as well. They line up well and it's the farrest point you can go on to the central rudder brace.

So that means I measured 1/16" from the 3" mark, then 1 1/8" and so on. Did the some on both sides .

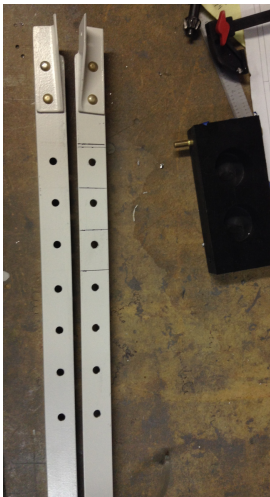


Now that you have the forward most position on each mark, you clamp the nylon block in the correct position on the marks you just made. The work bench acts as simulated side skin so you can be sure that the nylon block will be perfectly aligned with the side skin later. I clamped everything firmly down on the workbench and drilled the #12 holes for the AN3 bolts through the predrilled holes in the nylon blocks.

The 4th hole gets reused in this case but never mind drilling that last position as you will not be able to drill that on the center rudder support which I'll explain and demonstrate in the next article.



Did the same on both sides, et voila... rudder positions ready... all too easy.



## 07/04/2017 - Rudder pedal position drilling - 4h

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installed them again to verify in the assembly and they look really good.