

The weather in Belgium continues to be abnormally cold for the time of year. This is a real bummer because I am using a priming booth outside that is not heated and for priming, we need at least 10 degrees C. Help I'm blocked....

Well, there's always something else to do when you build an airplane. I don't really like that. You start doing things in many places and the questions months from now is, did I already do this or not. I prefer to stay organised and follow the plans.

But in this case, I have no choice. It's doing that or being blocked by weather.

My end of winter dip in working speed continues.

As my tail cone has all the bulkheads clecoed on, I decided to take a shot at the J-Channels.

The J-channels are long J shaped aluminum angles that run along the length of the tail cone.

They are stiffeners. Their primary function is to prevent the skin from starting to flutter in flight and to provide some stiffness to the structure.

The stiffeners come in long stock angles that need to be cut to length. The plans clearly indicate the different lengths so this is an easy job quickly taken care of by my air cutter with 3M cutting disc.

When the ends are deburred you can continue on cutting away the ends. I found this explained pretty confusing in the manual and plans. Well actually, it's not explained at all. The manual just says to cut away the ends and the drawing is pretty poor. I got even more confused as I started browsing to other builder sites. Especially when reading Bruce Swayzes' site. He cut them all parallel and then decided he did something wrong explaining a difference between left and right sides and re-orderd parts. I couldn't figure out what the hell he was talking about or doing wrong. I contacted my buddy builder Hugo to find out what he did. He told me the tabs all look similar except for the top J-channels where you don't need to take away that much material.

So that's what I did, I marked the dimensions on the ends of the J-channels with a sharpie pen and started cutting them. I used a very fine cutting disc in a dremel. The material is pretty thin so you don't need the heavy cutting disc here.

J-Channel preparations -23/03/2013

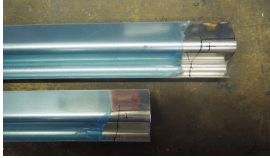
Category: 3.5. Tail bulkheads

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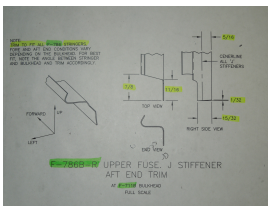
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As you can see, I also marked the center location where to drill a 1/4 hole.

You do this because the bend needs to be smoothed to avoid the aluminum to crack. The right location is drilling in the middle of the bend of the J-channel.



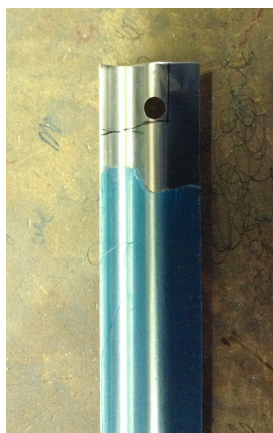
This is how it looks on the plans



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On one of the stiffeners, I made a bit of a mess by cutting a little too deep with the dremel and hitting in the lip. I solved it by filing a bit more away with a round keyfile until I passed the end of the crack. It looks acceptable. I assume it won't be this little lip that will keep all the plane together. The most important is that row of rivets that directly hold the stiffeners to the skin. This lip more serves as a shim between the skin and the bulkhead.



Similar view with the dremel cut made.



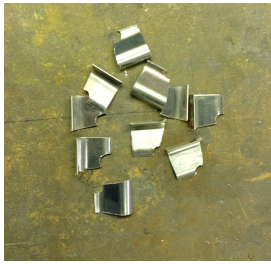
The scrap

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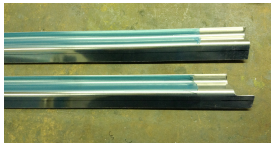
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Finally drew a centerline on the stiffeners as per the plans.

The centerline looks like it's not really centered but believe me, it is.

The bend in the material towards the J part is counted as well in the total width.



Another small task done. Hoping on warmer weather now.