

Pajero Blister Fender Snorkel



By Ernie Merrick

Disclaimer. I am not responsible for errors in this document. You can follow this guide at your own risk. This is how I did it.

It all started at Chimes. A friend of mine drowned his patrol and so the need for a snorkel arose. I looked at pictures of other snorkels and started to design this one. I decided to use 76mm x 1.6mm steel pipe. The initial idea was to run the pipe on top of the fender, but after some inspection , I came to the conclusion that the pipe will fit under the fender.

The Bends

On the picture below one can see the bends. The pipe was cut to a approximate length and I made the first bend. I made the bend by cutting the pipe at an angle and welding it with a gas torch (oxy,asetelene). A normal welder on low amps can also be used. I did this 8 times to get it as round and smooth as possible. The other bend was also done like this but with only 2 cuts. They were later joined.



Preparation

If you look carefully at the picture above you will see that i cut away a small piece of the body. I made the cut with a small angle grinder. I would suggest the use of a 1mm thick cutting disc. Below is a picture of the removed pieces. I forgot to take a picture of the body before fitting the snorkel. Also a picture of the rib that I had to remove.

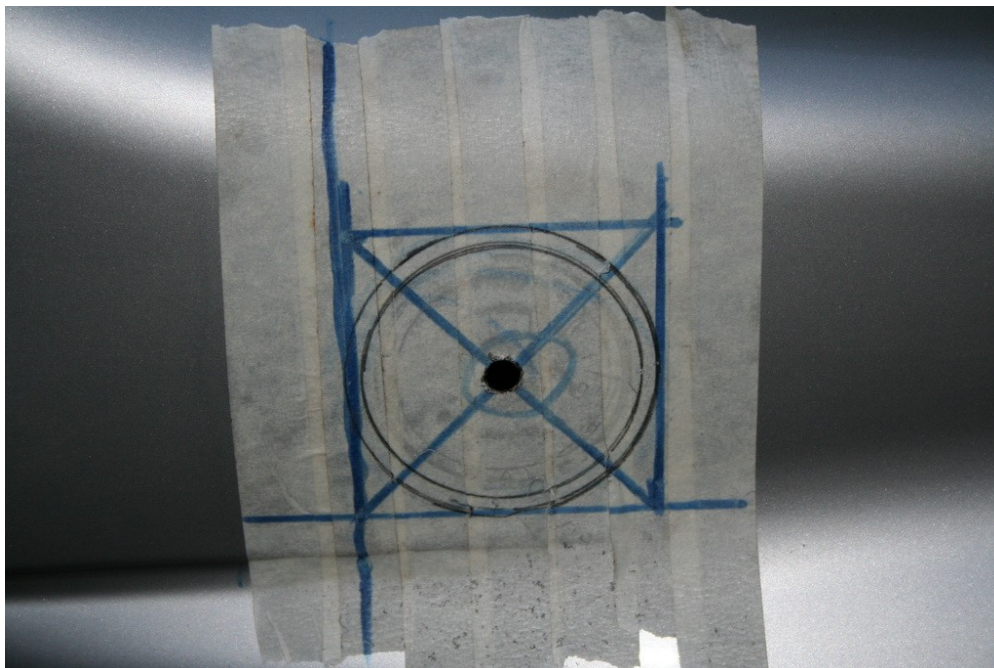


The hole

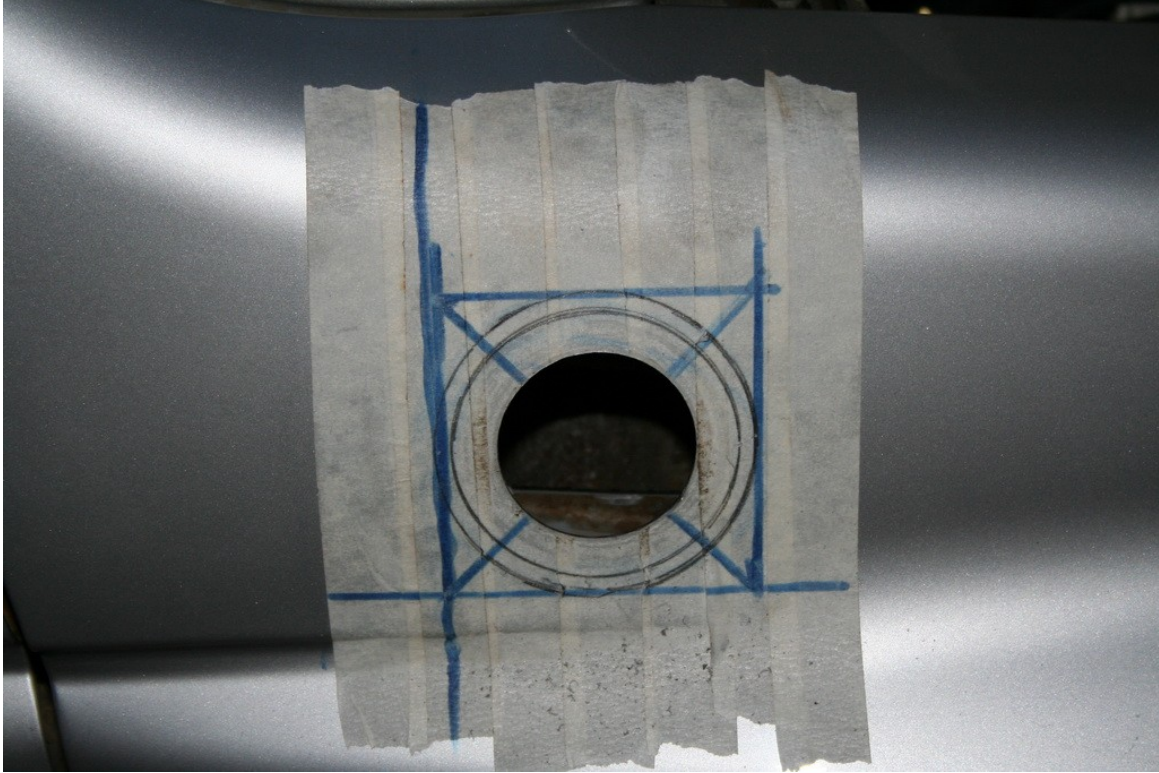
This is the part that frighten most people, and it should. If you don't get this right, you will be sorry. A new fender plus a paintjob is going to cost a bit. I did it as follow. I marked the end of the cutout with a dry wipe marker on the panel under the windscreen. Next placed the fender in its original place and marked the left most edge of the hole.



I then measured out a 76 mm square, and the center point. I drilled a hole on the center point. Using a screwdriver and a piece of stiff wire I outlined the hole. I also outlined a bigger 80mm hole to allow for the rubber.



Next I used a chassis punch to punch a hole in the fender. A steel hole saw can also be used. Just make sure that the first hole is smaller than the drill of the hole saw.



I then used a jigsaw with a fine steel blade to cut the hole to size. The masking tape is there to protect the paint, and to mark more clearly.



Mounting

I then made 2 small brackets to hold the snorkel to the body next to the windscreen. One 100mm from the top opening and the other on the bottom of the pillar. These were made from 3mm steel. I Used to pop rivets to fasten it to the body. I did try to drill to the inside of the cabin and fasten from there but there is a thick piece of metal inside the pillar, possibly a roll cage of sort.



The last bracket was made by drilling and tapping a hole for a 6mm screw where you can see the slight bend under the fender. This is fastened from the inside of the engine compartment.



Last bits

For the connection between the snorkel and the air box I used a piece of aircon hose I got at a local scrap yard. it has the correct diameter of the snorkel and it was used for the last bend. This was sealed using silicone sealer, and a hose clamp.



I finished the project with a rubber surround for the hole and paint.



Just a word on the painting.

Sand the snorkel with 100 grid to get rid of the rust. I used a flapper disc on my grinder. paint with undercoat. The ones in cans works great. Next sand lightly with 400 grid sandpaper. Apply another coat of undercoat. and sand again with 400 grid.

Do the same for the black paint.

I also used a bit of body filler to fill some minor holes on the bend on the outside before painting.

I hope you find this helpful.