

My Hawk build part 25 by Stuart Clarke

Fitting the Roll bar!

More good news! The roll bar had finally arrived!

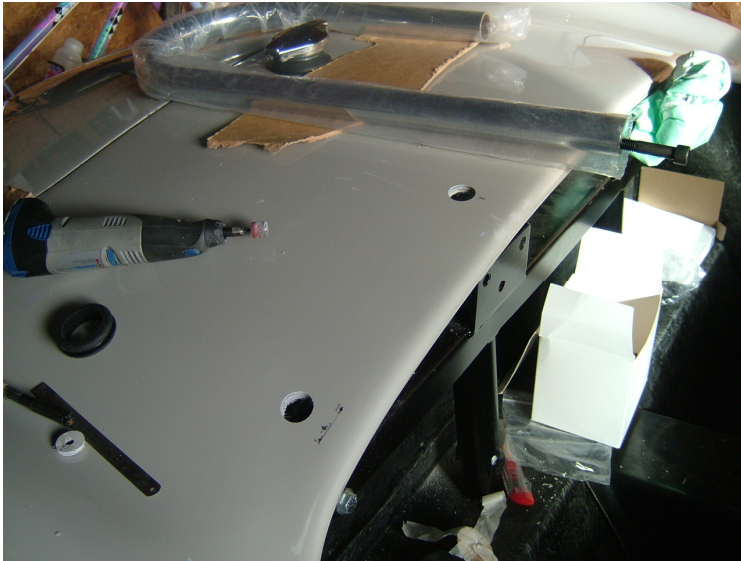


It was well worth the wait as the quality is superb.

The roll bar comes in two pieces. The hoop part that mounts to the chassis and, the already fitted, SVA frame and the outrigger that bolts to the hoop and fixes to the chassis through the floor in the passenger footwell. I also ordered the two special grommets that will hopefully make the installation look much neater. The only thing I did do to the parts supplied is to replace the black allen cap heads supplied with zinc plated ones in the same 12.9 grade. I thought that it would spoil it having a really nice chrome roll bar bolted together with a rusty bolt.

I measured out where I needed to cut the holes in the fibreglass using a number of templates (not forgetting that you need to bear in mind that the roll bar leans back slightly) and drilled some pilot holes and after checking they were in the correct place I cut some 25mm holes with a holesaw. The plan was to dremel the rest to ensure there was more chance of getting the holes spot on.

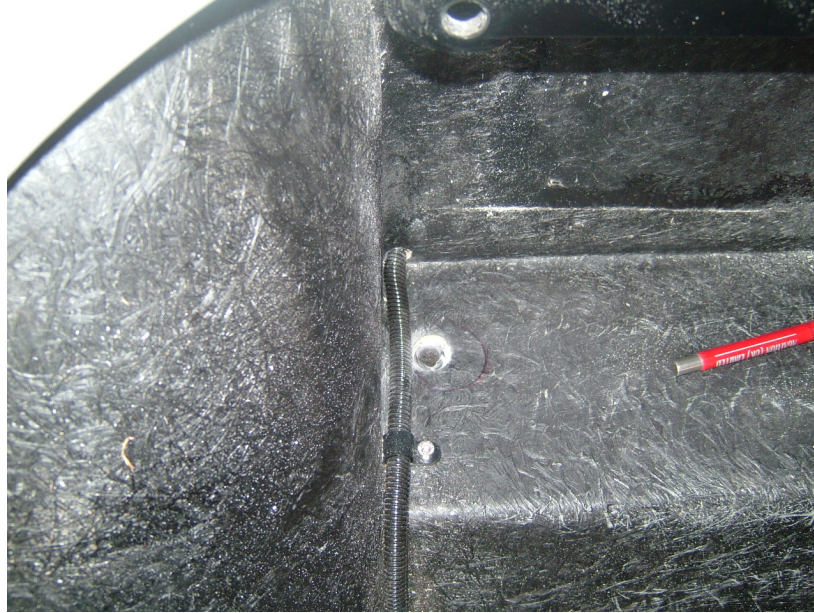
Once I was happy that the holes were in the right place I ground them out with the Dremel so that the roll bar hoop could just pass through them.



Then I made the holes big enough to fit the grommets.



The next stage was to drill the hole to enable the longer leg of the bar to be bolted to the chassis. The hole through the chassis is already present but it's a pig to get at. The best way that I found was to drill a clearance hole, from above, in the GRP floor that lines up with the hole beneath. To find the location I marked around the roll bar where it meets the floor, measured and drilled.



I could then fit the hoop.



The bolt could be screwed in from below (in order to do this I had to remove the lever arm damper mounting bolts.)



I could then drill the two 7/16" clearance holes (as described in the manual) to bolt the hoop to the SVA frame. The one side uses the bolt that fixes the SVA frame to the straps in the boot and the other side just needs an additional bolt.

The strut attaches to the hoop with the cap head screw provided (although I replaced this with a zinc plated bolt of the same 12.9 tensile strength).



In the passenger footwell I notched out the tunnel flange a touch to give the passenger and seat a bit more room and marked the hole that needed drilling in the floor. I drilled and tapped the hole, which also goes through a solid steel plate on the chassis outriggers, and fitted the nut and bolt provided.



Last thing up on this episode was to bleed the clutch and brakes. I've already got a small compressor so I bought a vacuum bleed kit to use. Never used one before but they are quite simple. Rather than pumping the pedal for ages, the kit uses compressed air to create a vacuum which sucks the brake fluid through. The theory is that when the air bubbles stop being pulled through and it is pure brake fluid, then the system is fully bled.



I did the clutch first. I filled the reservoir with Dot 4 and connected the rubber cap on the brake bleeding kit onto the bleed valve on the clutch slave cylinder. I cracked the bleed valve and pulled the trigger. After a few minutes liquid started coming through and after about 10 minutes it was pure liquid with no bubbles. I pushed the clutch pedal and my better half assured me that the clutch arm was levering backwards and forwards when I pushed the pedal. It saves a lot of time if you don't let the reservoir run dry whilst bleeding!



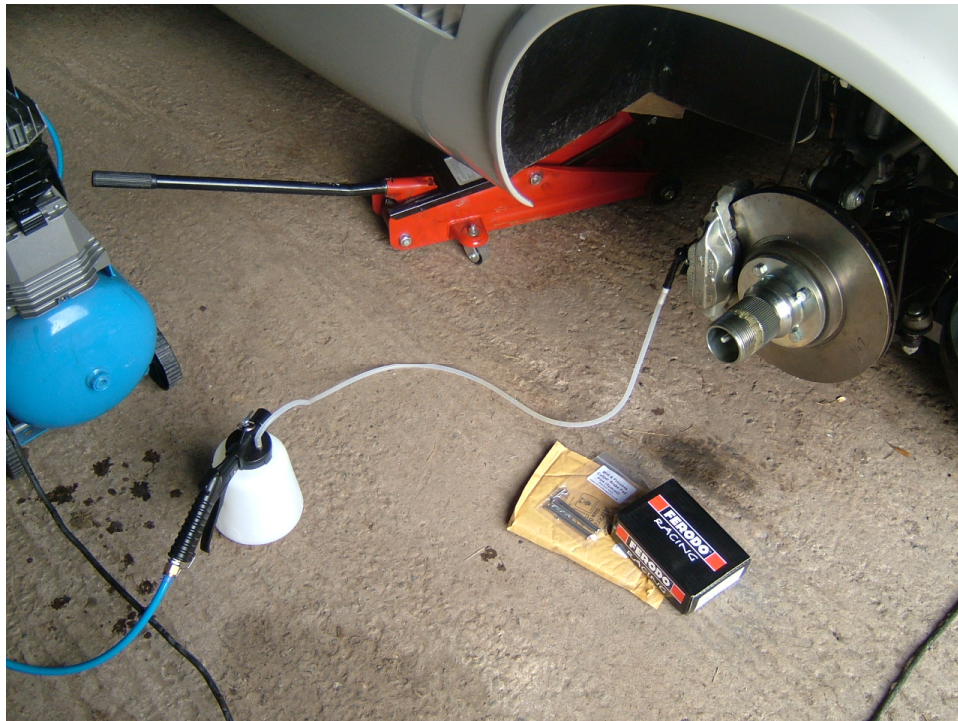
Result!



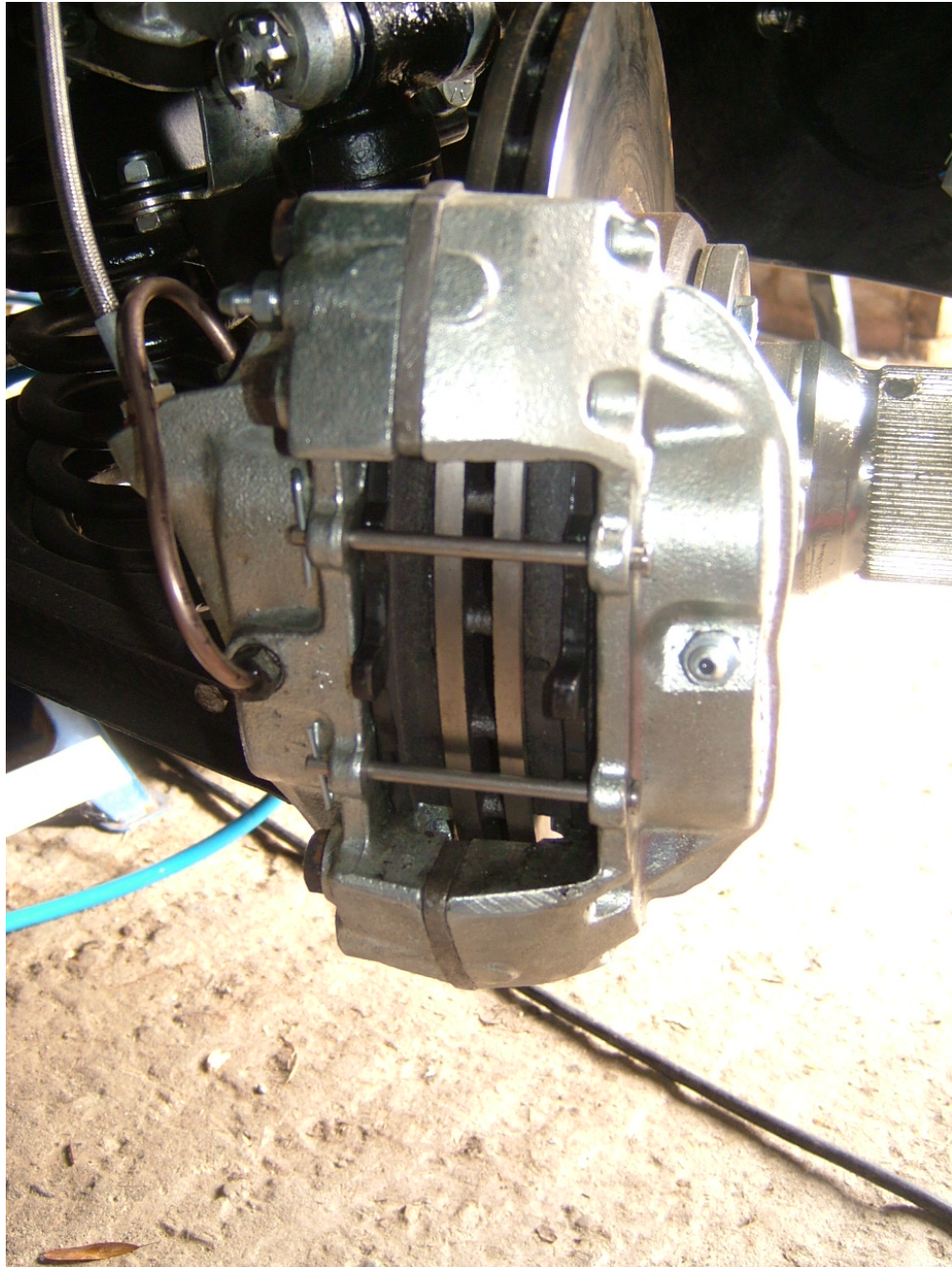
Same procedure with the brakes and I did the back ones first. I just made sure that I swapped from side to side every few minutes.

I also found that the bleed valve on the rear brakes is much smaller than those on the front calipers and clutch. I was much more effective when I cable tied around the rubber connection when it was on the bleed valve to get a better seal. The back brakes took about an hour until I was happy that there was no air in the system.

Front calipers next and I changed the old pads at the same time for nice new Ferodo DS pads.



I also fitted some of the R clip type retaining clips as recommended by the fellow 289 register members. They are much better than the normal split pin retaining clips.



The front calipers took a good couple of hours to bleed. But eventually the pedal was nice and firm. I'd recommend that any work carried out on the brakes be checked by a competent person just to make sure that everything is correct. Cleanliness is extremely important and to ensure that no oils or grease come into contact with the brakes or brake fluid.