

## My Hawk build Part 13 by Stuart Clarke

### Time to juice it up!

With the body back on, I can now think about fitting the fuel tank.

Before I did that I thought it best to fit the Seat belt frame.

The seatbelt frame sits on the rear bulkhead. It fastens through the floor to the chassis and also has two tension straps that attach through the rear bulkhead through the boot floor to the chassis. This is also the frame to which the roll bar fits but although this is already ordered from Gerry, I haven't had it yet.



There are two holes that need to be drilled through from the underside. It's a bit of a squeeze to get under the car (yes it's now been raised to car status!) but luckily my other half has informed me that I'm on a diet and I'm already noticing the difference. There are two cap head screws that are included with the seatbelt frame that bolt through from underneath. These need to be nipped up but not tight at this stage. I'm getting to be a master at doing these jobs by myself. The amount of cardboard that I've shredded to use as wedges, anyone would think that I was a hamster!

As I'm fitting a roll bar (when I get it) the manual says to cut two cardboard disks and fit them to the top of the tubes where the roll bar fits. I understand that these are to be used as GRP cutting guides later on. A good tip to get them the right size is to put the cardboard over the tube of the seatbelt frame, and using a hammer tap the cardboard against the tube and this will cut the cardboard to the perfect size.

The cardboard disks need to be taped to the tops of the tubes and then the frame can be put in place and the bolts nipped up.

Connection point  
for tension straps



The green cloths are to stop the stainless seatbelt guides from getting scratched.

The two tension straps attach to the frame from the boot and clearance holes need to be drilled for these. I drilled some pilot holes from the front and then drilled the 20mm clearance holes from the back.





The bolts for these straps are included and the other end fixing utilises some bolts that are already used to bolt the body to the chassis in the boot place the tension straps in place and you can see which ones are used. These bolts need to be removed as the tabs on the straps need to be drilled to accept these bolts.

The tabs were marked and drilled and everything was reassembled and the bolts were tightened (including those to the underside of the seatbelt frame).

For the fuel tank I decided on Gerry's stainless steel version. This comes with the mounting straps and I also ordered the 289 filler cap, grommet and filler pipe and the sender to suit a Smiths gauge.

I loosely fitted the connecting pipes to the tank and set about fitting the level sender.

The sender comes with an adjustable length float arm that needs to be set to the right length. This comprises two lengths of wire, one is connected to the sender and one has a bent end that clips to the float. There are a couple of clips to clip the two wires together to get the correct length. These should then be soldered together to stop the two wires parting in the depths of the fuel tank. I spent some time working out the length and I decided to forget the second piece of wire and in fact shorten the one wire and put a bend in that one and snap on the float. Sorted!



This gives me a sender that works freely and when it is at the bottom (i.e. fuel tank empty) this still leaves a couple of gallon of petrol in the bottom of the tank.

I'd got some M4 stainless cap screws that were perfect for attaching the sender to the top of the tank. I was now ready to slot the tank in place. As I was only putting the tank in place to locate all of the fixings, I didn't use the foam at this time. I just used some cardboard to space it out.

I stuck some masking tape in the rough locations of where the holes needed to be drilled, put the tank in place. Located it centrally and put the brackets in place and marked out the holes to be drilled. I also cut a cardboard disk and fitted this as a drilling template for the filler cap hole. I drilled the holes out and refitted the tank using none nyloc nuts at this stage.



I found the centre line of the car which coincided with the mark in the gel coat for the filler cap and drilled a pilot hole.

I took the fuel tank out and found that the pilot hole was slap bang in the middle of my cardboard drilling guide. Perfect!

If it wasn't I could take the cardboard disk and keeping the same orientation and using the pilot drill as a locating tool I could fit the drill through the disk and through the hole in the body, draw around the disk and this would give me the exact location of the tank filler nozzle on the top side of the body, for the hole I needed to cut out. As I was using the grommet, I needed to cut a 70mm diameter hole. I drilled a 54mm hole using a hole saw and cut the rest with my dremel and a burr.





I then had to cut down the filler cap adaptor (as it was too long), fit the grommet, fit the filler pipe and drop in the fuel cap and adaptor.

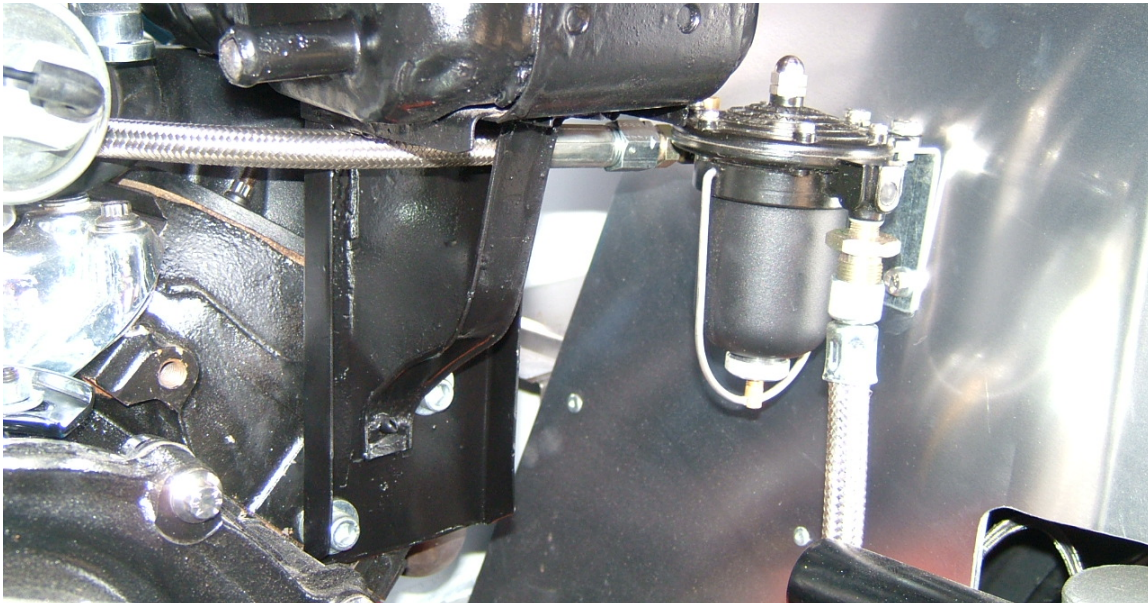


It all lined up perfectly.

This type of cap is known as a Presto cap. The IVA regulations state that it can't protrude more than 50mm from the vehicle body. (This is in addition to the radius issues.)

I could then finalise the fuel lines.

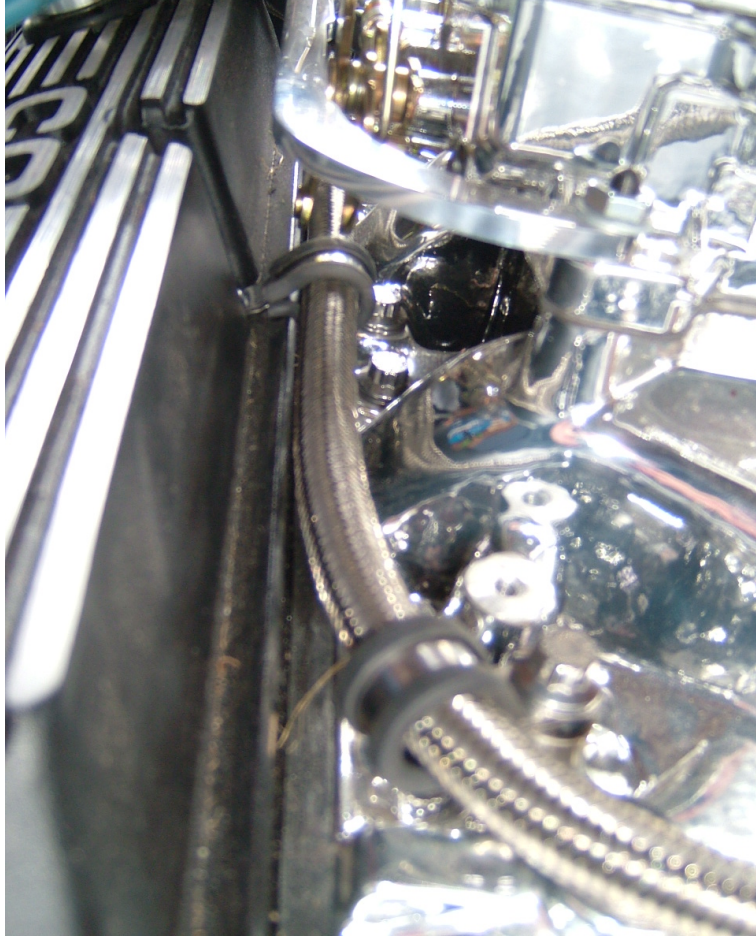
Included in the fuel line kit was the filter king - regulator and filter. This is mounted in the engine bay on the nearside inner wing. I had to bend the mounting bracket as it was flat originally. This was then bolted to the inner wing to suit the hose from the fuel pump and the hose to the carb.



The hose from the filter king to the carb wasn't included in my kit but luckily I have a good friend in the Hydraulic hose business and he was good enough to swage me a matching stainless steel braided hose.







It has to be securely mounted as with all of the other hoses and pipes. It also has to be positioned so there isn't anything that can chafe the hose.

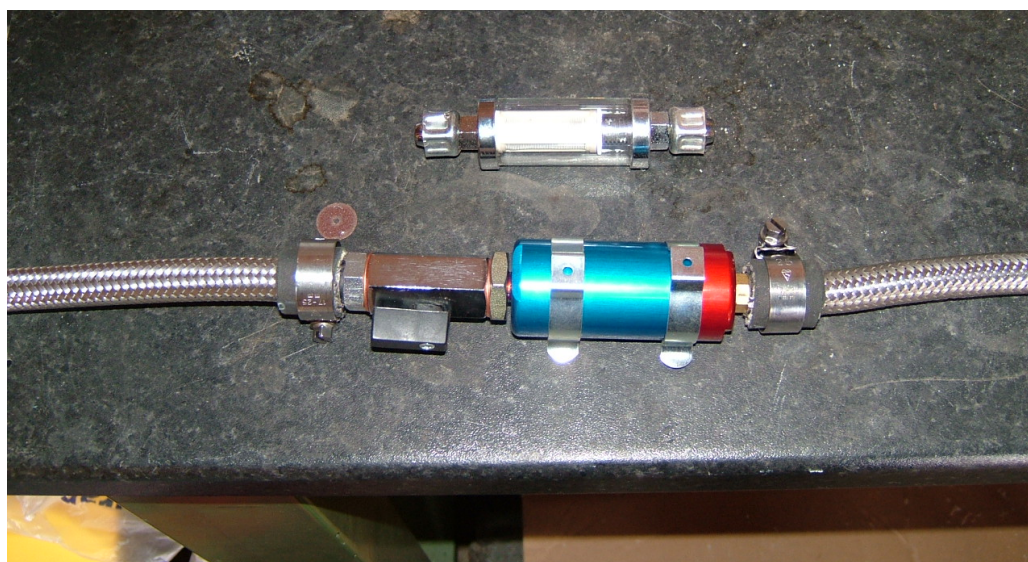
The next thing on the agenda is the pre fuel pump set up.

The kit from Gerry contains a glass fuel filter that is supposed to be located underneath the boot area. There are quite a few people who don't like these filters as the glass can be shattered and this then dumps the contents of the fuel tank all over the road! Without considering the fire implications there's also a cost and inconvenience factor that I'd prefer to avoid.

In addition to the risk, I didn't like the position of the glass filter as it would be really difficult to access to change the filter.

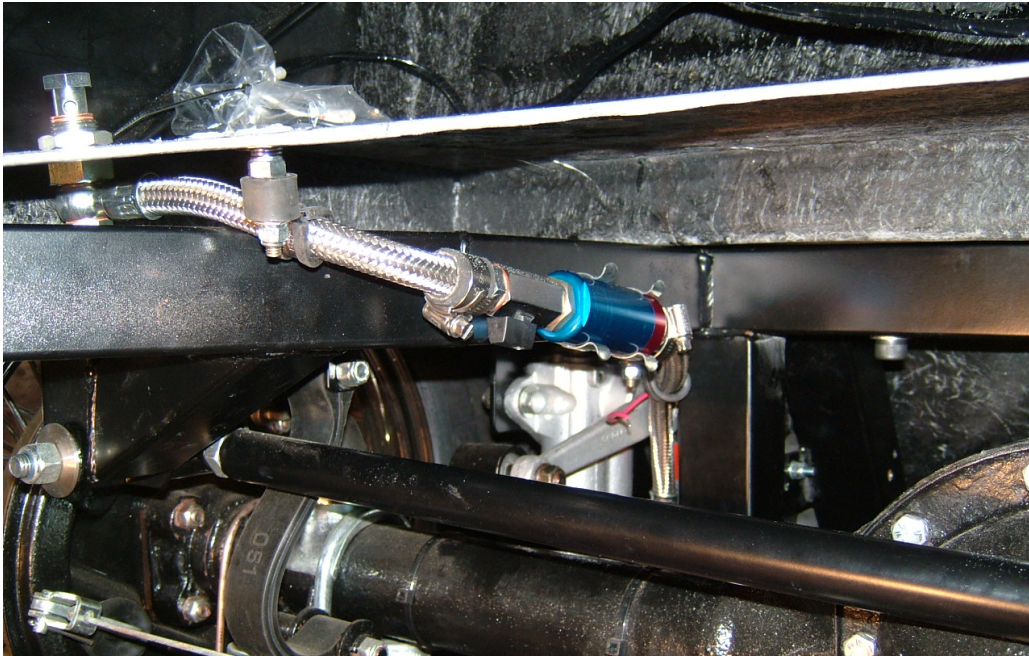


One option is to fit a “shatterproof” aluminium filter and whilst I was at it, I fitted a tap to isolate the fuel tank. Just in case I needed to change the fuel filter.





The filter came with two mounting spring clips and used the old hose and banjo connections.



It was up out of the way and secured nicely. Just the job!

Before I refitted the fuel tank I wanted to sort the wiring out along the back of the bulkhead in the boot and also fit the foam strip that supports the tank. Using plastic P clips the holes were drilled and tapped and the section of the loom to be routed behind the tank was secured in place. This picture also shows the tank breather pipe secured in place.





Before I refitted the tank I rinsed it out with some petrol. Just to make sure there was no gunk that would block the new fuel filter straight away.

The tank fitting only took a few minutes and all of the connections and pipes matched up. The only bit of an awkward job was fitting the tank strap upper fixings to the bulkhead as I wanted the breather pipe to go over the top of the straps.



I cut and fitted some heater hose under the tank straps where they attach to the boot floor as it says in the build manual. The 3/8" ID hose I had was perfect for that.

I connected up the tank sender to the loom and fitted the 70mm jubilee clips to the filler cap hose.

I checked all of the connections were tight and I checked that the breather hose was still "breathing" I've ordered a one way tank vent valve for the breather hose but it's on a long delivery so I'll fit that later.

That's that.