

## The Saga of the Middlebridge Filler Caps

**(This article explains in detail how to fit the currently available caps and trigger mechanisms for the SE6 onwards, I must point out that when this stock has sold out there will be probably be no more made as the jigs have been lost and the cost of replacements could not be recouped by future sales). Mick G.**

When I bought my S2 in 2007 one of the first things I noticed that needed refurbishing was the petrol filler cap.

Now the filler cap on the S Series is made of a zinc alloy called mazak widely used in the automotive industry presumably as it's easy to cast and machine. However it does not last well in the longer term and after some 20 years signs of bubbling had become very obvious.



Filler cap 00a.jpg

And this was by no means the worst!

In November 2008 I went to the NEC Classic Car Show with pictures, drawings and measurements of the filler cap to see if I could find out which car TVR in their wisdom had 'borrowed' the design from. But search as I might I couldn't find out which major manufacturer was the source. Then success of a sort, I went on to the Middlebridge Scimitar Enthusiasts Scimitar Stand and met with Mick Gaughran. (Scimitar & TVR owner) Yes the Reliant Scimitar SE6 and GTC and the Middlebridge Scimitar all used the same petrol filler cap

as the TVR S. But Reliant/Middlebridge had sourced their filler caps from TVR!

After a brief discussion with Mick we agreed to see if we could re-manufacture the filler caps in stainless steel as Mick had contacts in both India and China.

Despite following this up immediately it took some time to progress but there were concerns as to quality etc and someone would have to travel to organise and invest in tooling costs.

At this juncture I had a call from Neil Perry at TVR Car Parts in Devon who told me that he had about 100 raw castings for the filler caps and 15 for the bases which they had bought from the factory when they took all the existing spares etc for the S Series.



Filler cap 00b

He asked me if I could organise the final machining needed and the plating. Luckily I had very good contacts to do both so the first batch has been completed.

### **The Fitting Process**

Getting to the nuts to release the old filler cap is a difficult job but can be done, the carpet trim glued to the inside of the boot needs to be unstuck from the retaining nuts.

When the filler cap is off the car the first action is to release the roll pins which hold the cap to the base and the latch to the cap. They only come out one way. Both caps I have checked were the same but please don't assume that your will be. I would suggest that you clean out the ends of the roll pins carefully so that you can see grooves and then drive the pins out in the direction of the grooves using a nail punch, see below for a sample of the latch with the roll pin loose.



Filler cap 001.jpg

When the pin is removed there is a tiny spring under the latch **DONT LOOSE IT**, I put the whole cap in a polythene bag before final removal so it couldn't get lost.

(Please check the fit of the roll pins prior to re-assembly just in case they need a little easing, the fit should be fine as all the work has been done using jigs and a cnc milling machine and double checked by hand after plating.)

I then fitted the latch to the new cap, carefully placing the spring first, putting the roll pin through both cap and latch and driving the pin home with a nail punch.

Next separate the cap from the base and the roll pin is the opposite of the other one



Filler cap 002.jpg

Next you have to remove the spring backed seal to the filler pipe



Filler cap 003.jpg

File off the peened over pins for two of the supports holding the seal as you do it, carefully save the washers, now you can remove the seal and spring easily. They remove the peening from the other two supports again saving the washers.

Take two of the washers and place on the supports on the new cap, peen them over.



Filler cap 004.jpg

Push one end of the seal under the washers, squeeze the seal down against the spring, add the second two washers and peen away.

The metal is soft enough for you to hold the cap in one hand while peening, however I did put the cap on the work bench on a cork mat for the final peening.

Please note that later cars with the carbon can type breather does not have a hole in the centre of the seal so if the components you are using aren't from your own car please check to ensure that if your cars has a breather hole so has the replacement.



Filler cap 005.jpg

Replace the roll pin holding cap to base and refit to car (by for the worst part of the job).

What the end result looks like



Filler cap 000.jpg

The whole job took about an hour start to finish and it looks fantastic

TVR Car Parts have only got limited stock of the caps and very limited stock of the bases.

Norman Farmer

Mick Gaughran