



In July 2012 I finally got around to my fuel pump project. I have a MkII 3000, a BT7. This had an AUF 301 (SU, of course). I think that BMC switched from LCS pumps around the time my car was built so I am not sure if my pump was original, but no matter. It had let me down in the past...the usual hesitancy cured by a hard rap on the bulkhead. So, I rebuilt the pump. It had single contact points which I swapped for doubles. Likewise, it had a condenser across the terminals. Better, the experts say, than nothing. Anyhow, I fitted

a diode. (CSX 1004 for negative earth vehicles, 1005 for positive. Or snip off the lugs and swap them over; these things only work one way.) If I learnt anything from having to fix my pump it was:-

- 1) Double contact points
- 2) Diode
- 3) Giving the extra rotation of the diaphragm to be sure of the “throw-over”.

The pump worked fine but I always wondered.....I wanted to eliminate, at least reduce, the chance of future pump problems. People have used various modern alternatives to replace SUs or to work in conjunction with them. Or they have fitted an extra SU as a backup, using clever wiring to switch between pumps. All good stuff, elegant solutions to an enduring problem. Personally, I like to stick close to the original but am happy to embellish upon it. So, I was leaning towards fitting an extra SU but then decided upon fitting a double ended SU. My reasoning was this:

- 1) It's a little neater.
- 2) One can use the original bracket, no hacking and drilling.
- 3) Because I had a 7-way fuse block I could give each side of the pump its own fused and switched power supply.

There are various double ended SU pumps. High and low pressure. Separate or simultaneous pumping. And then there are the variations arising from polarity and the optional conversion from points to electronics. I wanted negative earth, simultaneous pumping ie the capacity to pump separately or together.



Now, finally to the point. I asked the Healey list a number of questions regarding the fitting of a double ended pump. I received some very helpful information. I also received a number of requests for details of how I got along..photos etc. So here we are:-

Actually, I found the bracket first. I had been trying various listing combinations on eBay and one showed a bracket for a 12 cylinder Jaguar E-Type, see left. The bag had “PH/PFK101” written upon it. Maybe a Jag part number? (The vendor

said that he used to sell pumps to 12 cylinder owners all the time, that the pumps came with brackets and that these were redundant because the purchasers used their original brackets. They should have rebuilt their pumps, but that's another story!)



I opted for one of the AZX1500 (previously AUF500) range. A pump's exact name and corresponding initials depends on its polarity and whether it is has points or is electronic. I found several on eBay and was able to buy one quite cheaply. Vendors' blandishments as to their pumps' condition were meaningless as I intended to clean up the body and replace the innards with rebuild kits. (Assuming the body was structurally sound, which you would expect). See left for a

new one and below for mine, ex eBay.



So far as I can see from visual comparison of the external view and the internal workings, this pump is two AUF 301 pumps siamized(?) in the middle. Anyhow, one buys two rebuild kits; one uses all of one kit and half of the other, the electric bits being duplicated and some of the mechanical/pumping bits being shared.

I wanted to use the original pipework, bracket and wiring with an additional wire run for what was effectively the additional pump. ie I already a fused

wire to the existing pump, so all I had to do was put a switch into the existing circuit and run in a second, identical, fused and switched circuit, which should have been easy.

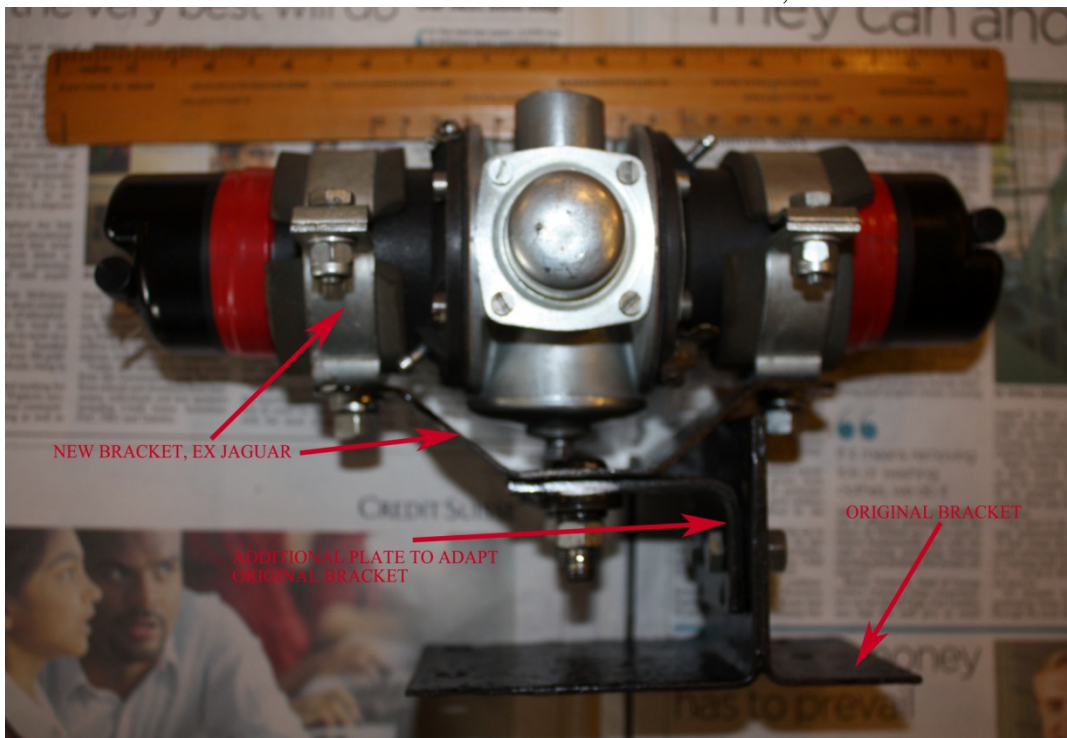
- 1) **The original bracket.** The existing bracket is a fairly robust thing held onto the bulkhead through captive nuts. See below for the pump and bracket on the bench.





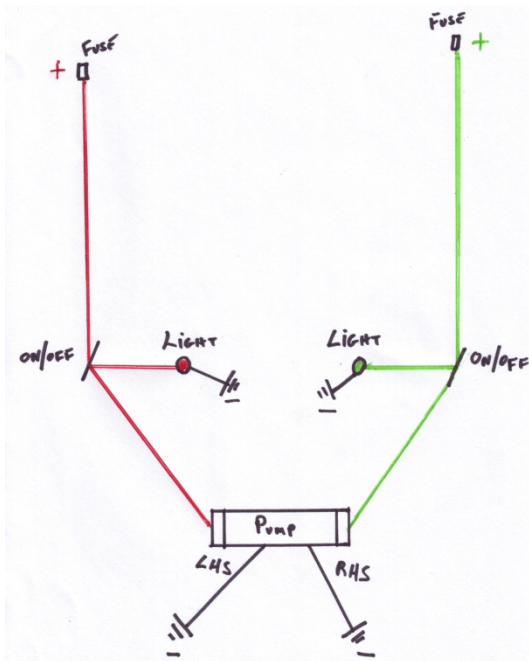
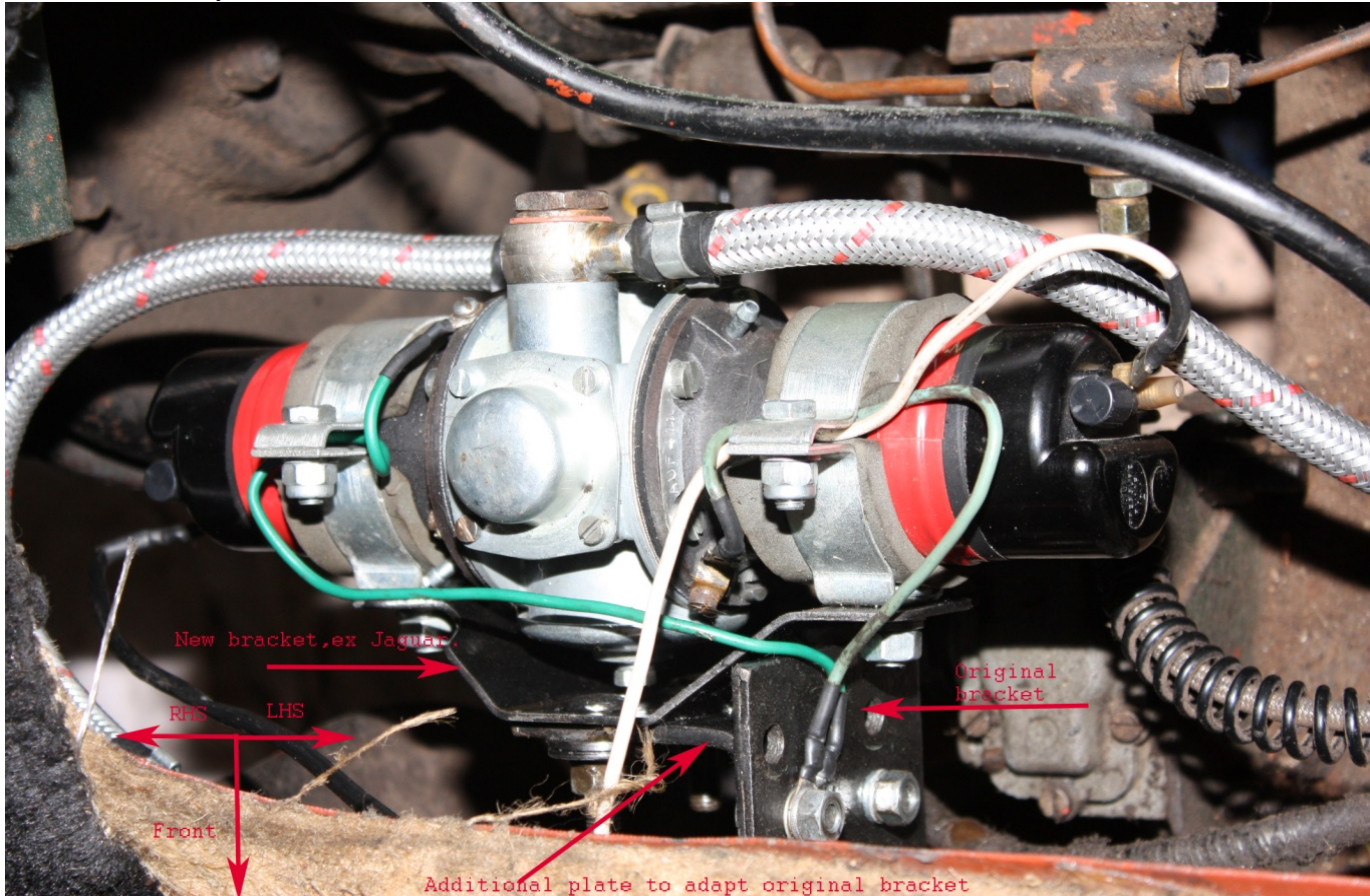
See above for the original pump in situ with original pipework, bracket etcetc.

- 2) **The adapted bracket.** My old mower had just died and, whilst stripping off useful bits, I saw a section of steel out of which I could fashion a second, additional bracket. See below.



What I have done, as I hope you can see from the photo, is add an “L” shaped section of metal which is bolted to the original bracket. To this new section is bolted the ex-Jag bracket

containing the double pump. Of course, I worried that I had made an error in my measurements but, this time, I got it right and it all fitted together and went right in. The order of assembly was a little counter-intuitive in order to allow access.



See above for the new pump in situ using the original white wiring with some temporary additions ie only one circuit and no switches. This was the test stage, easily managed by removing either power feed.

3)Wiring the pumps and switches. I had a diagram in my mind, drew it, wired it in and fuses blew in all directions. I began to doubt what was a very simple piece of wiring. The logic was there, but the thing just did not work. I sought advice and one person's advice as to the methodology of finding the flaw allowed me to discover a fault/short in one of the switches. So.....it's in; it's simple and it works. Two on/off switches, each with a warning light, both separately fused. LHS to have white/red tracer cable with red light and LHS to have white/green tracer cable with green light. (Port and starboard for the nautical types).

4) **The Switches.** When I bought my car it came with boxes of assorted broken “spares” and other rubbish. Of course, I kept anything that looked like it might be halfway useful; some of it *looks* useful but I have no notion what it does. There was a bunch of little warning lights, all with a common earth so they had plainly been part of something elaborate. I kept these and, in the belief that they had a +/- 60s “period” look, I used them here. Plainly the switches are modern, but they look similar to, say, the overdrive switch. I made a little bracket, trimmed it (rather crudely) and mounted it via the two bolts that attach the heater controls to the dashboard. In the picture, the LHS is **on** and the RHS is **off**. (I am still not 100% sure about the whole thing....switches, lights and panel, but I can always have a rethink. Something smaller maybe. Out of sight, without the lights...?)



In conclusion...obviously, few people have 7-way fuse boards so that aspect will be difficult to replicate. But one can use inline fuse perfectly easily or bring the cable to, say, a Lucas 7FJ 4-way box, ex MGB, Mini etcetc. See picture on left, shown without its cover. These boxes are cheap, easily sourced, look contemporary in our cars and are easy to fit. Anyhow, I do believe that, if one is going to wire in an additional pump, one might as well wire in a further margin of peace of mind with

an additional fuse.

Simon Lachlan
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