

TECHNICAL NOTES SERIES

**JOWETT JAVELIN – PA, PB, PC, PD & PE
JOWETT JUPITER – SA & SC**



– PART XXVI –

INSTALLING AN ELECTRIC FUEL PUMP

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*Compiled by Mike Allfrey – 12th November, 2015.
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INSTALLING AN ELECTRIC FUEL PUMP (SU)

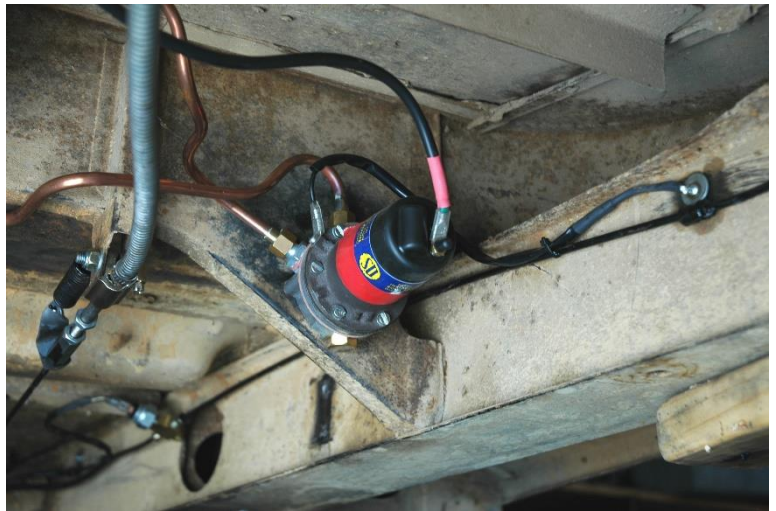
An Electronic Sound Effect 'Click'

As a part of preparing our Javelin for the National Jowett Rally at Armidale, the engine's petrol supply came under consideration. Over the years I have developed a mutual relationship with the AC mechanical pump – it is based entirely on mistrust. Mind you, my relationship with the electric SU type pump has always been such that when it becomes erratic, throw it away and install a new one. This philosophy is based on fiddling with points on Morris Eight vans in winter snows and trying to obtain some petrol flow to the twin SU carburettors on various MGs. Fortunately, my Jupiter's electric pump has been reliable over the years. However, while the engine was out and the overhauled one being built, the pump became sluggish in operation. A look in Holden Vintage & Classic's catalogue revealed that electric fuel pumps to the old SU configuration were still readily available. A Positive-to-Earth unit was ordered on the Internet, and it arrived four days later. Very convenient, until Tony George threw his biggest spanner in the works! Electronic ignition, as described in a recent issue of *The Javelin*.

In my situation, this was too tempting and, as part of the engine project, electronic ignition was added. This required that the Jupiter's electrical system be converted to Negative-to-Earth. The Holden Vintage & Classic Website was perused again and a pointless electronic pump was here in two days. Their service is as good as that of our club!

Thus I had a spare (new) SU Positive to Earth petrol pump sitting idle and, as the Javelin's overhaul was progressing, it was decided to convert to electric pulses rather than mechanical thumps. The car was high up on chassis stands and the underside rear was studied for a good location for the pusher type pump. On the driver's side, at the rear under the seat there is a convenient triangular gusset in-board of the chassis RHS box member. Two ¼" holes were marked out and drilled for the pump securing setscrews. A suitable piece of 3 mm steel plate was found under the bench and was similarly drilled and cut to size to form a strengthener, the chassis gusset being sandwiched between the pump and the support plate. That was the easy bit.

Right: Figure 1. SU pump mounted on gusset and its pipes. To the rear of the pump is an earth cable.



A couple of metres of 5/16" OD copper tube was obtained and, using a pipe bender in the vice, along with many trips under the car, the pipe work was formed and installed. Joiner olives and unions are still available from Pirtek, as are the silver solder nipples for the petrol pump inlet and outlet unions. Furthermore, once the tubing is bent to shape, Pirtek will silver solder the nipples to the pipes. It was decided to remove the pipe from the petrol tank, this is a steel pipe and it was in good condition. The petrol tank is on the LHS of the car and the pump is mounted on the RHS. The pipe from the tank was cut and bent, using a tube bender, so that it passes over the rear tailshaft shield. Where it passes over the shield, a length of loose fitting rubber hose was fitted over the pipe to prevent rattles. An olive connector joined the supply pipe to the copper tubing connected to the pump's inlet fitting. Suitable pipe clamps hold the pipe to the underside of the car.

The outlet side of the pump was connected to the remaining piece of the original supply pipe adjacent to the mid-ship bearing cross member, the copper tube passing above the mid-ship bearing and held close to the floor with pipe clamps. With this installation, my car now has an electric petrol pump in a similar position to that in my Jupiter, so it should work well in delivering copious amounts of fuel.

An earth cable was attached to the chassis gusset and a main feed cable was inserted into a sheath with the petrol gauge cable and a ring-in red cable of unknown parentage, but as all the electrics worked before the car was laid up, was left well alone. This feed cable was then secured along the under body and fed up to the front bulkhead. The electrical supply to the petrol pump is taken via a fuse box from the control box A5 terminal, the same as the Jupiter.

All that remains to be done is the installation of a good filter and a Speco Performance Parts pressure regulator, most likely on the front bulkhead. There is already a thick aluminium plate mounted over the original petrol pump mounting face on the crankcase.

Mike Allfrey.