The importance of the seemingly insignificant – breather pipes on an SU fuel pump

Peter Cook highlights the need to ensure the breather pipes are connected to the vents on an SU fuel pump to avoid the ingress of water. Here he explains.

My V8 seemed to be suffering from fuel starvation problems in that anything over quarter throttle created an induction noise but no additional power. Releasing the accelerator resulted in a minor, very fleeting surge in power. To find the cause and a remedy I started with the cheap possibilities by changing the under-bonnet fuel filter and the spark plugs. This didn't solve the problem so heeding Barrie Jones' advice I removed the petrol pump and took it over to his workshop for inspection.

The fuel pump is the modern SU type, that is, the traditional SU pump but electronically controlled rather than with the original points under the cap. The electronics end seemed fine on inspection, but when it was subjected to a 12 volt charge the pump sounded quite unwell.

Further dismantling revealed the cause. Inside the main body the diaphragm assembly seemed fine until it was removed when a large amount of rust was discovered inside the main body of the pump, the coil housing. It was apparent that the armature spring, the spindle and the diaphragm backing plate were all seriously corroded. The accumulation of rust and the rust on the spindle meant that the spindle's up and down movement was seriously constricted. Eventually the spring would have been the first to disintegrate completely such was the severity of the rust. Most of the components have to be pure steel given steel's magnetic properties so a stainless steel or brass solution is not possible.

So what had caused the rust? The answer is that whenever the pump had been fitted, although the plastic vent pipe was correctly fitted to the vent on the pump, the rest of the plastic pipe was loosely wrapped around the adjacent battery cage. Therefore as the vent operated, especially in in heavy rain and on sodden roads, it had been drawing in moisture from the outside which was then rusting the pump's innards. The correct destination of the vent pipe should be through a grommet in the spare wheel area about six inches to the left of where the wiring loom enters that area. The plastic pipe should be topped with a 'T' piece as is used on the windscreen washer assembly. This way the pump can breathe but does not ingest water.

Interestingly, my version of the MGB Haynes manual mentions the removal of the vent pipe when removing the fuel pump, but says nothing about the importance of the vent pipe and its whereabouts on replacement.

Fuel pump on a chrome bumper V8 needs the two breather pipes

Roger Williams mentions this in his book (Expert guide to MGB problems and how to fix them, published by Veloce) saying "the fuel pump on chrome bumper cars needs the two breather pipes. The top breather pipe (arrowed) was omitted from rubber bumper cars since the top vent was protected by the boot. Failure to use the airtight breather pipes applicable to your car will result in an ingress of water". That can then damage the fuel pump resulting in poor fuel supply.

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