



The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

When the Engine stops - (With thanks to Essex Austin Seven Club, The Chassis, May 2001)

There you are bowling along on a nice sunny day (?) when suddenly the Austin's engine cuts out or begins to stutter and whatever and then cuts out. Usually this happens in the thick of traffic or in some remote spot and where ever it happens it is a minor disaster and it can happen to the best maintained vehicle. So what is the cause of this lack of forward motion?

One possibility is simply water or filth in the petrol which has got through the filter at the fuel pump and has landed up in the carburetter bowl. There it can clog the tiny jets found in the bottom of the float chamber. These can be easily removed and carefully blown through before replacing. Other causes of fuel problems can be more serious such as failure of the fuel pump itself. The diaphragm inside which makes the suck and blow, can fail as can the two valves, but this is not a common problem. Nevertheless, I carry a spare pump in the 1001 box of bits in my car. Sometimes the fuel has run out altogether because the fuel gauge is telling big lies - I have had that happen to me as well - so spare petrol is carried as well.

The next and most common area of sudden failure is in the electrical system, most notably the ignition system. Now this problem area strikes at modern cars as well, and when their ECU's (electrical control unit) fails, the vehicle in question has to go home on a lowloader because the fault is terminal (and expensive.) The same total failure can afflict the Austin, but in this case the remedy is not only cheap, but fixable by the roadside. Starting with the distributor, sometimes the ignition points can close up with wear (readjust) or they can be burned and pitted. This latter condition is caused by a failing condensor and if spotted before breakdown day, a new condensor and set of points can be fitted thus avoiding trouble. However, the condensor can fail without any warning other than for the engine to begin the spluttering and wheezing that often precedes the actual running out of petrol or a carburation problem. This problem is ter-

minal as far as forward motion is concerned, but the fitting of a new condenser (which you will now be carrying in the 1001 box) cures the trouble and happy days are here again. Condensers are strange little creatures made out of thin metal foil and old age plus damp puts them to sleep in the end. The points by the way, switch on and off the low voltage current that runs back into the coil and is converted to high voltage and then fires off at the appropriate spark plug.

Moving on to the coil, this is the equivalent of the modern ECU because when it fails it does so without early warning and fails totally. When this happens, the car is disabled and replacing the coil ends the problem (cost about £10.) The failure is often as not the high tension windings where an internal short circuit has developed. Coils are made up from thousands of turns of fine copper wire wound around a core and eventually, the insulation between the windings breaks down and so does the coil. These things can work O.K. for decades until one day they don't, as happened to me on the April 1st Run. On this occasion a 23 year old coil had failed so I fitted the spare 67 year old one I was carrying and away we went. But I now have a new coil in the 1001 box - just in case.

The big point of all this is to advise that spare points, condenser and coil should always be carried in the car as these are areas that can let you down. Also it should be remembered that these days, simple parts as these cannot be found in any old motor accessory shop.

Whilst on the subject of electrics, it is advisable to renew all the ignition leads and the HT and LT coil wiring at intervals of 5 years or so. You'd be surprised how this wiring deteriorates gradually and dodgy plug leads can cause misfiring and reduced efficiency. Wire is very cheap and you can use Lucas Hyperlon (60p a foot) for plug and coil leads. It is copper cored (don't use anything else but copper core wire) and has a soft black rubbery insulation which looks very period. Make sure that all the terminals are clean and bright including the rotor in the distributor (which has also been known to fail) and install the new wiring. These days suppressors don't seem to be needed on our cars and this is just as well as they can set up a resistance in the circuit when they get knackered by time.

And what about magnetos you may ask? Well, the points about wiring apply to them, but magnetos can also suffer from total stoppages due to internal shorting and wires coming adrift. There are also points to be kept in order. As these devices (which are excellent when in good health) need an exposition of their own and as I haven't dealt with one of them lately, this needs to be a matter for another article.

In conclusion you might be interested to learn that in the 1930's when coil ignition had replaced the magnetos, heavy goods vehicles of the day sometimes had both systems with two plugs per cylinder. I used to run a 1936 Leyland-Metz fire appliance for the Enfield & District Veteran Vehicle Society and this machine, being an emergency vehicle, had dual ignition as a fail safe. I usually ran on the magneto and started on coil and magneto together. Running on both did not produce that much more power from the 8.8 litre petrol engine!