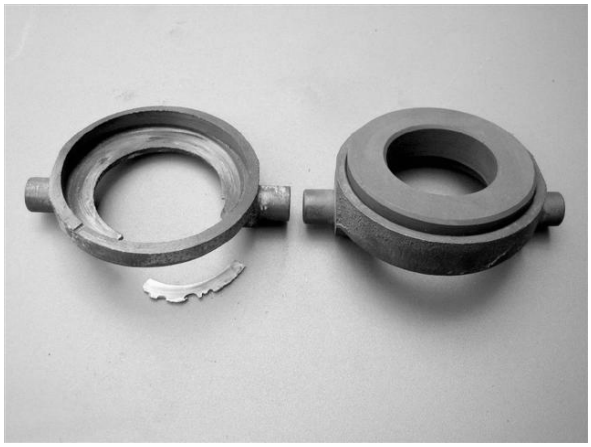
July — an Electric Month

Last month was a tempestuous one, with plenty of electric storms in the sky and several in our local MG community. No less than five club members consulted me about electrical troubles with their cars and my own roadster fell victim to one too.

My problems started with mechanical issues. The roadster's clutch was making strange noises that did not seem to, my inexpert ear, to be the throw-out bearing, so I did what a lot of members do, and that is consult Guy St. John. My pathetic attempts to imitate the sound over the phone lead him to suggest I drive it over to his place. Once I got there Guy didn't even have to drive the car and recommended that I don't go far in it either. It was, he said, a worn throw-out bearing fixable with $25 of parts and some hundreds of dollars of labor. With my wanting to use the car at the weekend and with six cars awaiting his attention already (not to mention that I'm a cheapskate), Guy didn't mind at all when I thanked him for the free advice and drove gently home to haul the engine and transmission out myself.

Looking at what remains of the bearing on the left of the picture, compared to the new on the right, I think I was lucky to get home at all. Apart from some frustrations getting the engine and transmission mounting bolts back in, the procedure did not go too



badly. While doing the job, I took Guy's advice and changed the bushing and fulcrum bolt in the clutch withdrawal lever and also used the opportunity to fix otherwise hard-to-access things like an intermittent overdrive gear switch and an oil leak on the front tappet cover.

The next morning, at about 9:30, the TV weatherman said it would start to rain around 11:00 so I took the opportunity of road testing the car at around 10:00. I had hardly driven a mile when the heavens opened and in seconds I looked and felt like a drowned rat. These people are always boasting about their three Doppler radars but we had a cat once that could forecast weather much better than they can. The result was that the car didn't get a proper run before I drove it out the next morning for the 250 mile round-trip to Hickory Corners to attend the Mad Dogs and Englishmen car show.

I went in convoy with some seven or eight other cars led by Rich Wagner. All went well at first but my voltmeter, which was showing a healthy 13.8V of charge, suddenly dropped to around 12.4V and then lower and lower. Although the dash charge light indicated all was well with the alternator, something was evidently wrong. I switched off my cooling fan and radio and at a stop, disconnected my daytime running lamps so as to preserve power. Having done that I was confident that the battery could get me to the show but not so sure it would get me home.

As we arrived the battery voltage had dropped to an alarming 11.0V but by that time I had run through all the possibilities in my head and was reasonably sure that I knew the source of the problem. I had seen this fault a couple of times before, once on another member's car when we were far from home. Once parked I took a voltmeter and put it on the alternator output terminal, it read 15V, while the car electrical system voltage was still 4V below that. The two were obviously not joined together and their connection point was one that had been disconnected in order to remove the engine. Obviously that was one disturbance too many for the 38 year old piece of wire and on the bumpy roads it broke away from its connector at the starter solenoid. Unable to jack up the car on the soft grass, I jury-rigged another piece of wire around the fault and all was well.

The point of all this is to sing the praises of the voltmeter. The alternator warning light did not come on because there was nothing wrong with it. Had it not been for the voltmeter, I would never have known I had anything wrong, until that is, the car stopped when the battery was finally exhausted.

If your classic car has an ammeter, that will tell you a lot about the charging system. If it does not have one then I don't recommend fitting one because it requires bringing heavy cable into the dash area that is hard to route and connect and because the added resistance has an adverse effect on the electrical system as a whole.A voltmeter on the hand is easy to fit and the digital one I use in my roadster simply plugs into the lighter outlet. Little British Car sells an identical device to that pictured on the left for $15. On my GT, I have wired an analog voltmeter in but it's frankly not as easy to read as a digital type.

After resting for at least 5 minutes after charging, and without any loading, a full battery should read 12.4V. Any reading less than that and the battery needs charging. Any reading less than about 11V is of concern. The battery may not start the car but my all means try. If the car won't start and the starter motor labors, then further tries may risk damaging it. Charge the battery or get a jump-start instead.

Once the engine is started and turning above about 1500 rpm, any reading greater than 12.4V indicates that the battery is charging, but you should expect to see over 13.2V, even with a heavy loading like the headlights on. If you have an alternator, a reading above 14.2V is probably a sign of a poor battery con-

nection and 15V, as I had, of no connection at all. In contrast, dynamo systems regularly produce voltages up to about 16V. Voltages above 15V, while normal for dynamo regulators, cause the battery electrolyte to boil off, lead oxide to form around its terminals and lamps to fail prematurely, so if you have a dynamo charger you should check for the occurrence of these.

You'll read elsewhere in this newsletter about Mad Dogs and what an enjoyable day it was for everyone, including me, thanks to my voltmeter.

By Rick Astley