

Troubleshooting: Some Case Histories

By Dick Ray

This article describes some interesting breakdown case histories and is intended to show how to apply some of the troubleshooting techniques described in the earlier articles.

At a recent meet, one M19 would not start. Since I regard this as mechanical insubordination and a personal challenge I went over to help.

We checked all the usual things and found nothing wrong. I knew this car had run reliably before and that it had enough compression to start. However, no amount of choking would get the plug wet. This is an unusual symptom. We had already disconnected the fuel line and watched fuel run out. We dripped some raw fuel into the plug hole, put in a new plug, and it fired right up—but then died again. A repeat of this procedure convinced me that no fuel was being drawn into the cylinder.

Next we pulled the plug on the bottom of the carb and watched fuel flow onto the ground. But wait! It didn't look right. Instead of splashing, it puddled, indicating that it was oil, not fuel. Somehow the owner had gotten straight oil into the fuel lines, possibly by pouring oil into the tank and then adding gas. Fuel could not get into the carb because the oil was in the way.

Once we saw fuel coming out of the carb we tightened the plug tight and it started right up. Another problem solved!

Later, being at the back of a 40-car pack I was not surprised to find an M14 set off at a grade crossing about 30 miles out, with the engine cover off. It had a military vibrator coil which was buzzing several times per revolution, and the car would not run unless the headlight was on. We simply bypassed that coil and attached my spare 6V coil with clip leads. The car ran fine the rest of the day.

Although I still don't know what was wrong, the lesson here is that a spare coil at the back of the pack, two six-foot clip leads, and a six foot plug wire with a plug connector at one end will often get a stalled car to the end of the run. In addition the trouble area has been isolated so the owner can fix it.

On the second day, another car was operating erratically and the owner asked me to take a look. Upon seeing a new coil in the ignition box I

immediately assumed that it was the source of the problem. We have learned the hard way that new coils come assembled but not adjusted. It is necessary to take the points apart and adjust them according to the instructions on the replacement point package. (These were reprinted in the Fall 1990 issue of *THE SETOFF* and also on page 9 of this insert.)

However, this was not the problem with this car. Instead we found a poor ground at the timer. The self-ground on a Weathersealed timer often isn't. There is a Fahnstock clip for a ground wire on the timer and I suggest that it be used. While adding that wire, it is a good time to ty-wrap the two wires together and to the timer control linkage so that they don't rub on the flywheel or stress the connections.

The final case concerns an MT14 that started running badly part way into a trip. After a stop, the Onan engine would start but then die. Clearly a carburetor problem, right?

The car was taken in tow and at each of the later stops the carb removal and disassembly process continued. Unfortunately the engine still would not continue to run after starting, and the car finished the trip on the end of a towbar. Later the owner told me that it was the coil.

Of course! The old axiom is still true. IGNITION TROUBLES OFTEN SEEM TO BE CARB TROUBLES. With a weak ignition the engine becomes sensitive to mixture.

If we had enough time to do proper troubleshooting, and if we had isolated the weak ignition, we could have gotten it going with an old trick. Change the plug gap to half of the normal value to reduce the stress on the ignition and it will probably run. Of course, this is an extremely temporary solution and the faulty part must be replaced as soon as possible.

The lesson here is to not be too hasty to blame the fuel system. It may be the ignition.

