

Wheels: We have a letter from Jeff of Dayton who has a 1990 Dodge minivan equipped with a 3.3 liter V-6 that misses, cuts out, and occasionally stalls. It does not do this all the time. Do you have any ideas?

Halderman: If the van is equipped with a tachometer, try to see if the needle jumps up and down while the engine is missing. The signal for the tachometer comes from the low voltage pulsing of the ignition system. Therefore, if the tachometer is acting up when the engine is missing, the problem is due to a malfunction in one of the following:

- Crankshaft position sensor (or pickup coil)
- Primary winding of the ignition coil(s)
- Ignition control module (also called an igniter)

If the engine missing does not effect the tachometer, then the problem could be a fault in the computer that controls the operation of the fuel injectors or the secondary (high voltage) portion of the ignition system.

You said in your letter that the engine will restart immediately after it stalls and seems to run okay for several days until it acts up again. This intermittent nature of the problem seems to indicate to me that the most likely cause is a poor electrical connection. To check the wiring follow these simple steps:

1. Start the engine.
2. Start wiggling wiring under the hood.
3. If the engine starts to run rough or stalls when the wiring is moved, check the wiring for corrosion or breaks.

If the vehicle wiring passes the wiggle test, stop the engine and unplug each electrical connector and check for corrosion or other evidence of a poor electrical connection. Be sure to properly reconnect each connector before checking another connector.

Wheels: What else could Jeff check if the problem is still not corrected by doing all of the above?

Halderman: In Jeff's letter he also said that the amber check engine light had never come on, therefore, I doubt if the fault is due to a computer sensor. A defective computer, however, could cause your problem and not turn on the check engine light. Before Jeff starts "throwing parts" at the problem, I will suggest further diagnosis including checking fuel pump pressure. A weak fuel pump could cause these problems. I would definitely suggest replacing the fuel filter if it has been at least a year since it has been changed. A dirty fuel filter can cause a restriction in the system and could cause a driveability problem. Also, try to avoid driving the vehicle with a fuel level below ¼ tank. When the fuel level is low, any water and/or alcohol in the fuel tank is more concentrated and can cause the symptoms you describe.

If the problem continues, take your van to a knowledgeable service technician for further diagnosis.

