

Wheels: Desperate in Dayton writes, “I own a 1986 Dodge Dynasty with a 3.0-liter V-6 engine with approximately 145,540 miles. Since I bought the car, it has operated flawlessly outside some minor tweaking. However, too often now, while in transient on the highway or driving within city limits, my Dynasty just Dies Nastily. Before it dies, it sort of hesitates like it is not getting enough gas. Even when I attempt to accelerate, it is to no avail – it still dies. After pulling to the side of the road, I have to try several attempts to restart the car before the engine actually resurrects to idle.

I’ve already taken it to a local Dodge dealership to have diagnostics performed. They first suggested I replace the fuel pump, fuel filter and do throttle body cleaning. The second visit entailed a tune-up, consisting of spark plugs, wires, air filter, oil change and engine flush. Further visits have failed to achieve a diagnosis of the real problem. Could you please help me diagnose the real issue to my engine problems?”

Halderman: Whenever confronted with an intermittent problem, I always perform a thorough visual inspection. Because the engine fault may be heat related, I would check all electrical connections for corrosion or damage. A search of archives of the international automotive technician network (www.iatn.net) showed several similar vehicles being repaired by replacing the wiring and ground connection under and near the battery. One similar vehicle was repaired by cleaning the carbon out of the vacuum passages leading to the MAP sensor under the throttle body fuel-injection assembly.

Wheels: After a thorough visual inspection, what else could cause the problem?

Halderman: This is the difficult part because there are many different possible causes. I would ask that a skilled service technician check for any stored diagnostic trouble codes (DTCs) and also check the operation of the automobile shut-down relay (ASD) or the idle air control (IAC) motor which was called the automatic idle speed (AIS) motor in 1986. A fault with this unit can cause the exact symptoms you describe. A scan tool is needed to check for proper operation and it could just need to be cleaned to remove carbon. After these relatively inexpensive items have been checked, it is possible that a faulty crankshaft position sensor, ignition distributor or even a powertrain control module (PCM or computer) could be the cause. Also, with over 145,000 miles on the odometer, I would also suspect an engine mechanical problem that could contribute to the problem such as a worn timing chain or other engine fault.

Wheels: There seems to be many items that can be the cause. How would you diagnose this problem?

Halderman: I would install a fuel pressure gauge and take a spark tester with me during a test drive. When the engine stalls, I would check if the fuel pressure drops. After it stalls, I would install a spark tester to the ignition and check for spark during cranking. These two steps will help narrow the problem to either the fuel or ignition system.

