

**Wheels:** This week starts a series of eight columns on the operation of dash warning lights and what they mean if they come on during driving.

### **Red Oil Pressure Warning Lamp**

The red oil pressure warning lamp comes on as a bulb check whenever the ignition switch is turned on and the engine is not running. If the lamp does not light, the bulb is defective or there is a fault in the wiring on the oil pressure sensor. When the engine starts, the red oil pressure warning lamp should go out. The sensor that controls the lamp operation is threaded into an oil pressure gallery on the side of the engine. When oil pressure exceeds 3 to 7 psi (depending on make, model, and year), the sensor opens the path to ground for the oil pressure warning lamp. Normal oil pressure is 10 psi per 1000 RPM of engine speed.

**Wheels:** What should a driver do if the red oil pressure warning lamp comes on while driving?

**Halderman:** I would suggest that the driver safely pull off the road and stop the engine as soon as possible if this happens. There are two possible causes:

1. There was a sudden loss of oil or a catastrophic failure in the engine.
2. The red oil pressure warning lamp circuit has a fault.

Since the oil pressure warning lamp only comes on if there is a drop in oil pressure, it is possible that serious engine damage has already occurred. When the light comes on, try to find a safe location to get out of the roadway. After being sure it is safe, get out of the vehicle and raise the hood. If there is evidence of an engine failure such as excessive smoke or noise, call for help. If the engine does not appear to be damaged, check the engine oil level. If the oil level is low or does not indicate on the dipstick, then have the vehicle towed to a vehicle repair facility. Do not drive the vehicle or serious engine damage can occur. If the oil level is OK, there may be a fault with the oil pressure sending unit or circuit. If the engine runs and sounds OK, drive the vehicle to a repair facility where the oil pressure can be tested using a known good mechanical gauge.

**Wheels:** What does it mean if the red oil pressure warning lamp flashes at idle only?

**Halderman:** If the oil pressure warning lamp flashes, then the oil pressure is close to the rating on the sensor. There could be a fault with the sensor or the oil pressure may be low due to a fault in the engine. Examples of items that can cause low oil pressure include worn engine bearings, defective oil pump, or a defective oil pressure regulator.

**Story Time:** I was driving an older model Ford with a 390 cu. in. engine that I had just purchased when I heard the valves making a clicking sound. When I got home, I found the oil level was 3 quarts low (out of 5 quarts), yet the oil pressure warning lamp never came on.

