

http://jameshalderman.com

## ACROSS

- 2 Another name for an SAI pump is a \_\_\_\_\_
- **5** When manifold \_\_\_\_\_ is high, the PCV valve restricts the airf low to maintain a balanced air-fuel ratio.
- 6 The process of gases leaking past the rings is called \_\_\_\_\_, and the gases form crankcase v apors.
- 8 The \_\_\_\_\_\_system provides the air necessary for the oxidizing process either at the exhaust manifold or inside the catalytic converter.
- **10** A P0101 DTC indicates a MAF or \_\_\_\_\_ circuit range problem.
- **11** A \_\_\_\_\_ contains a spring-type metallic disc or reed that closes under exhaust back pressure.
- 12 A secondary air-injection system is most commonly called \_\_\_\_\_.
- 13 Another name for an SAI pump is a \_\_\_\_

## DOWN

- 1 The \_\_\_\_\_ is performed by simply removing the PCV valve and giving it a shake.
- 2 Turbocharged and many fuel-injected engines use an oil/vapor or oil/water \_\_\_\_\_ and a calibrated orifice instead of a PCV valve.
- 3 The \_\_\_\_\_ will fail if the PCM detects an opening between the crankcase and the PCV valve or between the PCV valve and the intake manifold.
- **4** Ford uses an \_\_\_\_\_ to prevent ice from forming inside the PCV valve and causing blockage.
- 7 The proper operation of the PCV valve can be checked by placing a finger over the inlet hole in the valve when the engine is running and removing the finger rapidly, the valve should \_\_\_\_\_.
- **9** An oil/vapor or oil/water separator is used in some systems instead of a valve or \_\_\_\_\_, particularly with turbocharged and fuel injected engines.
- **14** \_\_\_\_\_ systems were developed to ventilate the crankcase and recirculate the vapors to the engine's induction system so that they can be burned in the cylinders.

