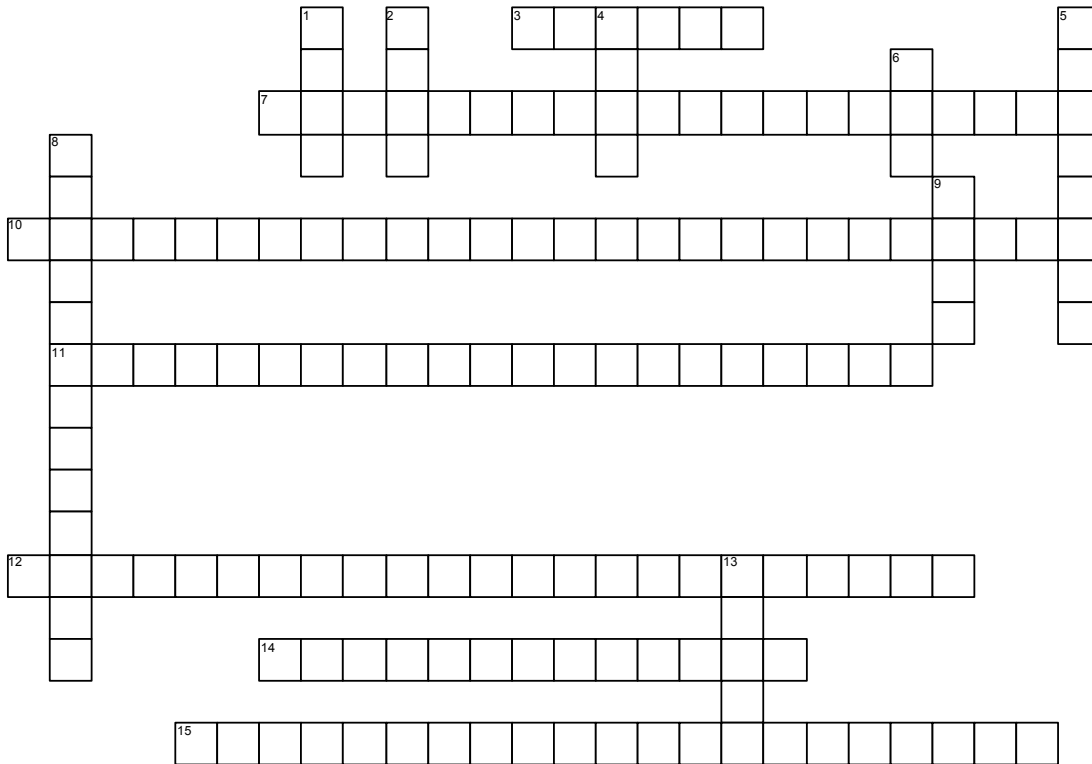


Vehicle Emission Standards And Testing

Chapter 31



<http://jameshaldeman.com>

ACROSS

- 3 If a vehicle meets the PZEV standards and is using high-technology features, such as an electric motor or high-pressure gaseous fuel tanks for compressed natural gas, it qualifies as a ____.
- 7 The _____ is the test used to certify all new vehicles before they can be sold.
- 10 The _____ type of test uses a dynamometer that applies a heavy load on the vehicle at a steady-state speed.
- 11 _____ is the standard by which exhaust emission testing for hydrocarbons is evaluated.
- 12 The states must submit to the EPA a _____ for their programs.
- 14 The higher the O₂ level, the leaner the exhaust, therefore oxygen is the _____.
- 15 Federal emission standards are set by the _____ of 1990 grouped by tier.

DOWN

- 1 All vehicles nationwide must meet the _____ standard, which started in 2001.
- 2 _____ is a vehicle certified to meet the transitional low-emission vehicle standards established by the CARB.
- 4 A _____ is compliant with the SULEV standard; additionally has near-zero evaporative emissions and a 15-year/150,000 mile warranty on its emission control equipment.
- 5 Evaporative emissions are determined using the _____, which measures the evaporative emissions from the vehicle after a heat-up period representing a vehicle sitting in the sun.
- 6 The _____ category is largely restricted to electric vehicles and hydrogen-fueled vehicles.
- 8 The higher the CO reading, the richer the air-fuel mixture, therefore CO is the _____.
- 9 Oxides of nitrogen contribute to the formation of photochemical _____ when sunlight reacts chemically with NO_x and unburned hydrocarbons.
- 13 _____ is an enriched oxygen molecule with three atoms of oxygen instead of the normal two atoms of oxygen.