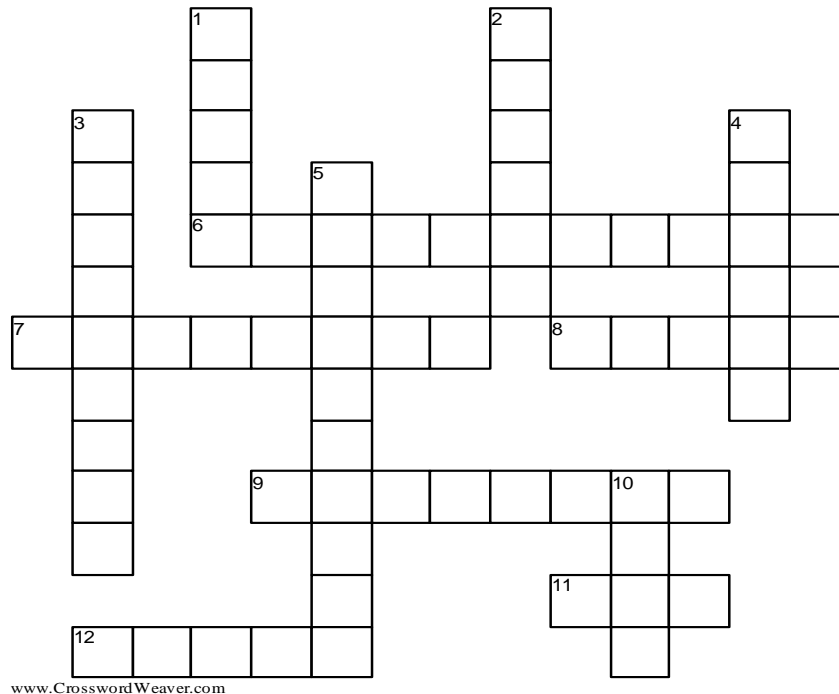


Advanced Engine Performance Diagnosis 8th Edition

Chapter 24

Fuel-Injection System Diagnosis and Service



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ACROSS

- 6** _____-____-_____injector: A type of fuel injector that initially uses a high current (peak) to open the injector, then reduces to a lower current (hold) to keep the injector open, conserving energy and reducing heat.
- 7** The _____ balance test involves using an electrical timing device to pulse the fuel injectors on for a given amount of time, usually 500 milliseconds or 0.5 seconds, and observing the drop in pressure that accompanies the pulse.
- 8** A pulse-width modulated type of injector drive circuit uses _____-resistance coil injectors.
- 9** Do not test an injector using a pulse-type tester more than one time without _____ the engine to help avoid a hydrostatic lock caused by the flow of fuel into the cylinder during the pulse test.
- 11** A ____ noid light indicates excessive resistance or low voltage available to the injector.
- 12** All fuel-injection systems require the proper amount of _____ fuel delivered to the system at the proper pressure and the correct amount of filtered air.

DOWN

- 1** Do not _____ plastic fuel lines.
- 2** If the noid light is on, both power and a _____ are present.
- 3** In a _____ switch-type injector-driven circuit, voltage (usually a full 12 volts) is applied to the injector.
- 4** One of the first checks that should be performed when diagnosing a no-start condition is whether the fuel injectors are being _____ by the computer.
- 5** Refers to the maximum current flow through a fuel injector coil, typically reached when using a saturated-switch injector, where the current remains constant during the injector's operation.
- 10** _____ light: A diagnostic tool used to test whether the fuel injector is receiving the proper electrical pulse from the engine control unit (ECU).