Fuel-Injection Components And Operation
Chapter 78

ACROSS
1. The idle air control valve is also called an __________ valve.
3. A _______ _______ may also be used and can readily reconfigure an existing design fuel sender into a returnless sender.
5. In some applications, an externally mounted permanent magnet motor called the _______ _______ _______ mechanically advances the throttle linkage to advance the throttle opening.
7. A port fuel-injection system uses a pipe or tubes to deliver fuel from the fuel line to the intended fuel injectors; this pipe or tube is called the ________.
10. A _______ _______ design uses a nozzle for each cylinder and the fuel is squirted into the intake manifold about 2 to 3 inches from the intake valve.
12. New technology needed to address pulsation dampening/hammering and fuel transient response, therefore, the _______ _______ _______ technology was developed.
13. In this system, the injectors are timed and pulsed individually, much like the spark plugs are sequentially operated in firing order of the engine, this system is often called _______ _______.
14. A _______ _______ is employed at the tank to relieve overpressure due to thermal expansion of fuel.

DOWN
2. A _______ _______ system delivers fuel from a nozzle into the air above the throttle plate.
3. The on-time in milliseconds that the nozzle is open is called the injector ________.
4. The first production returnless systems employed the _______ approach.
6. The method for pulsing injectors in groups is sometimes called ________.
8. Some GM throttle-body units do not hold pressure and are called ________.
9. The power driver contains a high-current transistor that controls the pump speed using pulse width modulation, this system is called _______.
11. An increase and then decrease in engine speed is often called an engine _______.