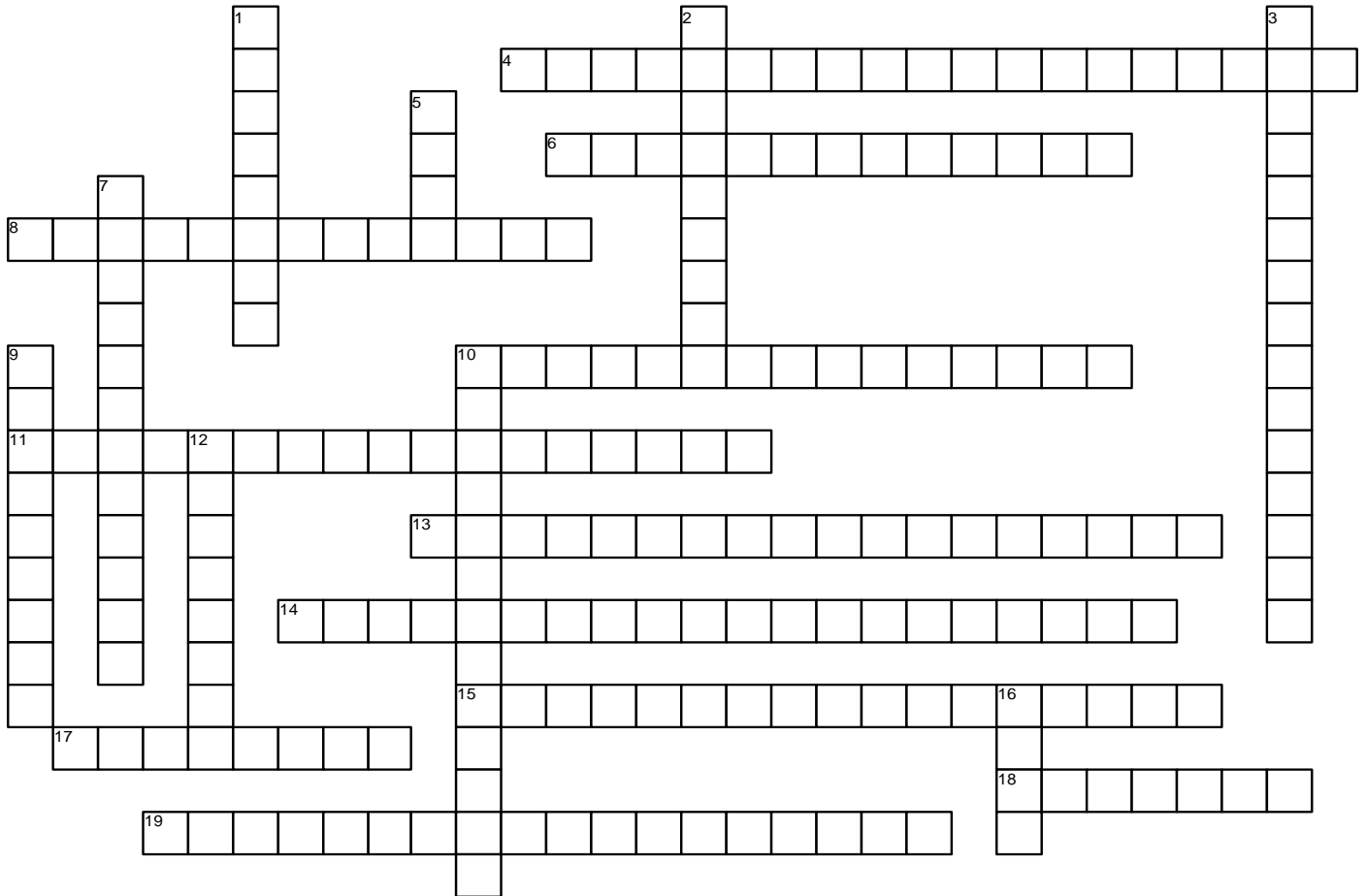


Diesel Engine Operation And Diagnosis

Chapter 11



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ACROSS

- 4 Ford 7.3 and 6.0 liter diesels use a system called a _____ unit injection system.
- 6 A diesel engine uses a fuel system with a precision _____ and individual fuel injectors.
- 8 Urea is called _____ fluid in North America and AdBlue in Europe.
- 10 _____ catalyst are used in all light-duty diesel engines, since 2007.
- 11 _____ refers to tiny particles of solid or semisolid material suspended in the atmosphere.
- 13 _____ reduction is a method used to reduce NOx emissions by injecting urea into the exhaust stream.
- 14 The _____ sensor has two pressure sample lines.
- 15 Incoming air is compressed until its temperature reaches about 1,000°F

(540°C) and is called _____.

- 17 The diesel fuel is usually drawn from the fuel tank by a separate pump, called a _____ and delivers the fuel to the injection pump.
- 18 _____ means the percentage of light that is blocked by the exhaust smoke.
- 19 Newer diesel engines use a fuel delivery system referred to as a _____ rail design.

DOWN

- 1 A _____ is a heating element that uses 12 volts from the battery and aids in the starting of a cold engine by providing heat to help the fuel to ignite.
- 2 Between the fuel tank and the lift pump is a _____ separator.
- 3 In a _____ diesel engine, fuel is injected directly into the

cylinder.

- 5 _____ is used as nitrogen fertilizer.
- 7 The process of purging soot from the DPF is described as _____.
- 9 A _____ is a device used for checking a diesel injector nozzle for proper spray pattern.
- 10 _____ particulate filter are used in all light-duty diesel vehicles, since 2007.
- 12 In an _____ injection diesel engine, fuel is injected into a small prechamber, which is connected to the cylinder by a narrow opening.
- 16 Another name for particulate matter is _____.