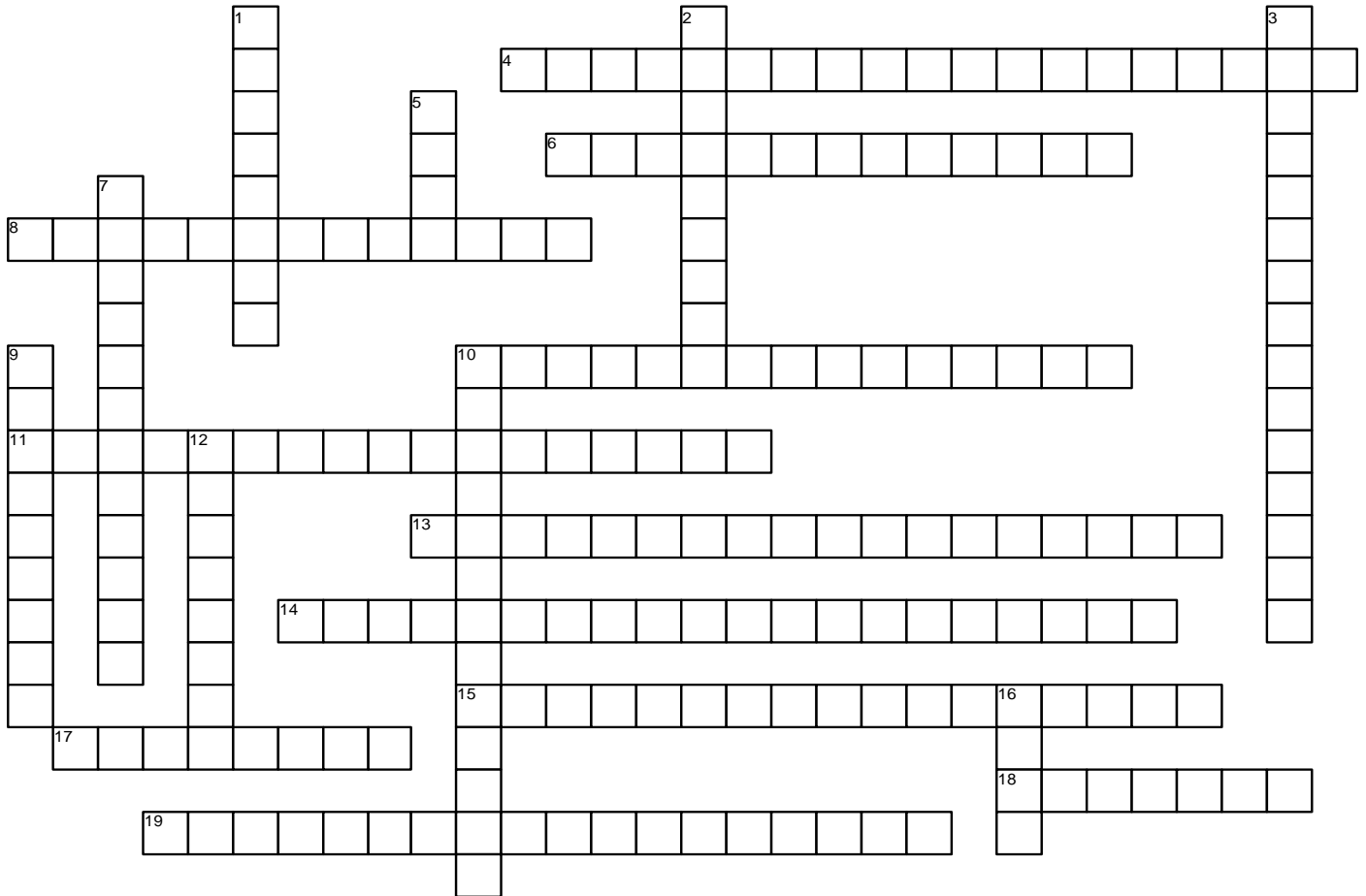# Diesel Engine Operation And Diagnosis
Chapter 10

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 ____.