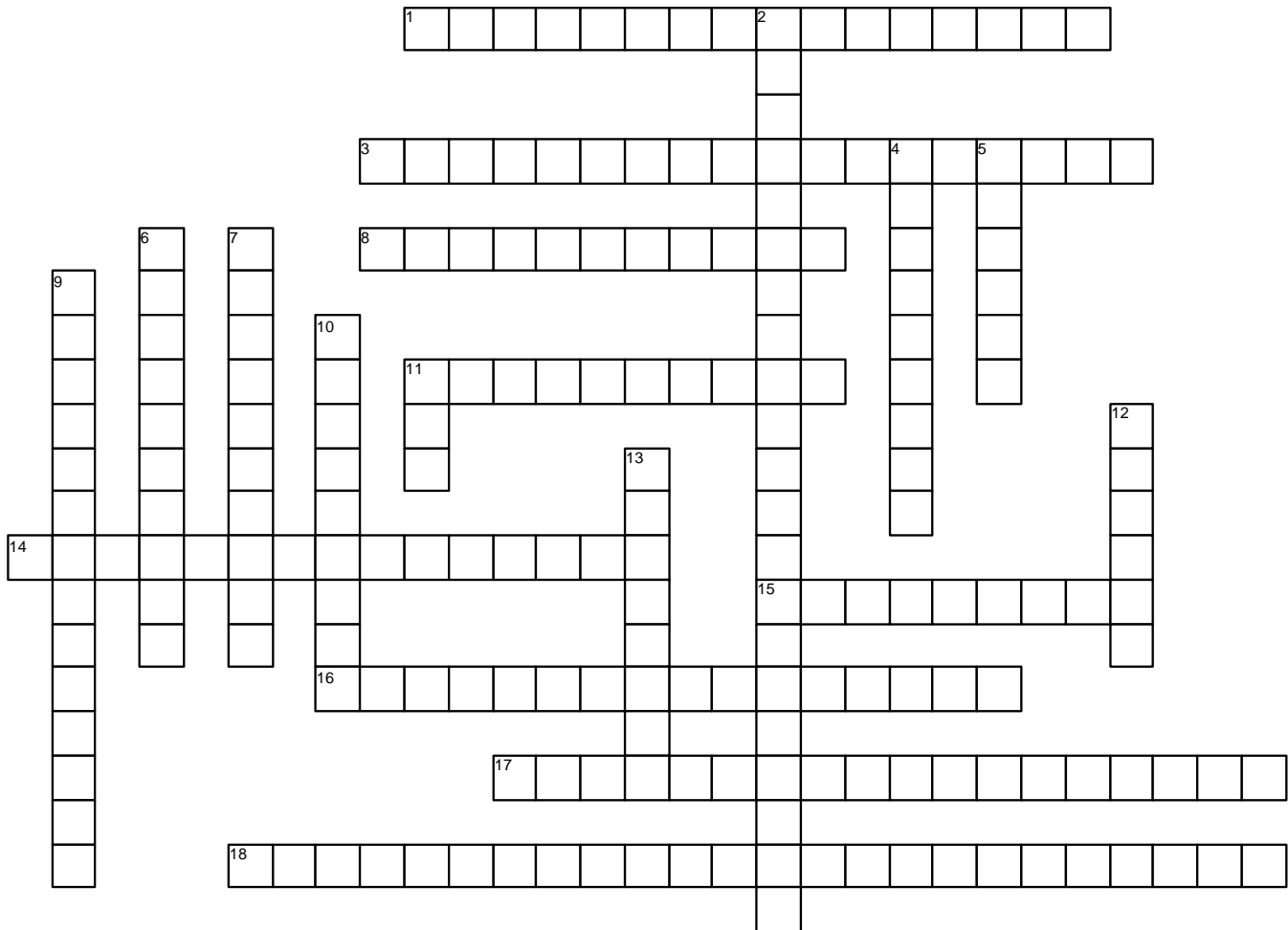


Cooling System Operation And Diagnosis

Chapter 21



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ACROSS

- 1 The _____ fan drive is mounted between the drive pulley and the fan.
- 3 In the _____, coolant flows into the block under pressure and then crosses the head gasket to the head through main coolant passages beside each cylinder.
- 8 Heat is transferred through the tube wall and soldered joint to _____.
- 11 In series flow systems, _____ in the gasket, block, and head perform the function of letting out the steam.
- 14 The water pump is a _____ that can move a large volume of coolant without increasing the pressure of the coolant.
- 15 _____ have oval-shaped coretubes that coolant flows through. Heat is then transferred through the

_____ tube wall and soldered joint to cooling fins.

- 16 In the _____, the coolant flows around all the cylinders on each bank.
- 17 A second type of thermal fan has a _____ added to the silicone coupling fan drive.
- 18 Some engines use a combination of two coolant flow systems and call it a _____.

DOWN

- 2 Vacuum pulls the coolant from the plastic container back into the cooling system, keeping the system full, this system is called a _____.
- 4 Some vehicles use a _____, which is located at the highest level of the cooling system and holds about 1 quart of coolant.

5 Coolant leaving the pump impeller is fed through a _____.

- 6 The _____ is a temperature-controlled valve placed at the engine coolant outlet on most engines.
- 7 Another name for bleed holes is _____.
- 9 Some engines use _____, which means that the coolant flows from the radiator to the cylinder heads before flowing to the engine block.
- 10 In most vehicle radiators, the coolant flows through oval-shaped _____.
- 11 Many vehicles manufactured in Japan or Europe use radiator pressure indicated in a unit called a _____.
- 12 A _____ around the closed thermostat allows a small part of the coolant to circulate within the engine during warm-up.
- 13 The pump pulls coolant in at the center of the _____.