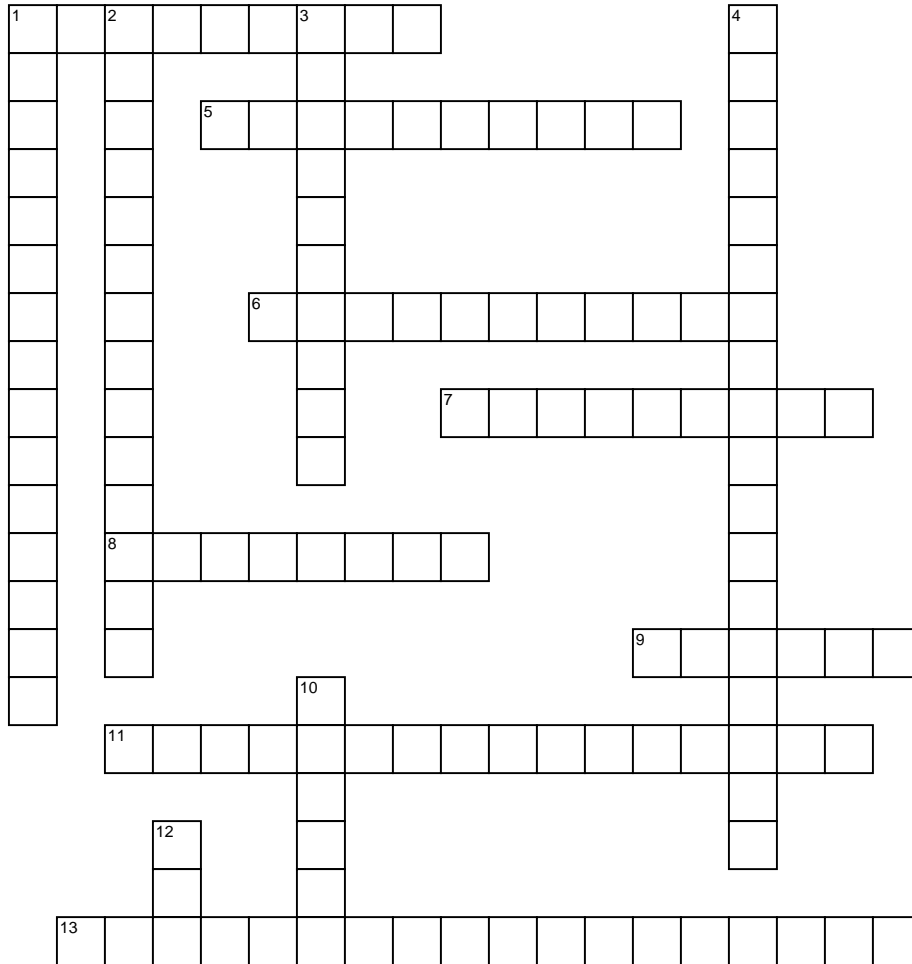


# Chapter 8

## Cooling System Operation and Diagnosis



### ACROSS

- 1 In each of these types, the coolant flows through oval-shaped \_\_\_\_\_.
- 5 In series flow systems, bleed holes or \_\_\_\_\_ in the gasket, block, and head perform the function of letting out the steam.
- 6 Heat is transferred through the tube wall and soldered joint to \_\_\_\_\_.
- 7 Some vehicles use a \_\_\_\_\_, which is located at the highest level of the cooling system and holds about 1 quart (1 liter) of coolant.
- 8 The pump pulls coolant in at the center of the \_\_\_\_\_.
- 9 A \_\_\_\_\_ around the closed thermostat allows a small part of the coolant to circulate within the engine during warm-up.
- 11 The \_\_\_\_\_ fan drive is mounted between the drive pulley and the fan.
- 13 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.

### DOWN

- 1 The water pump is a \_\_\_\_\_ that can move a large volume of coolant without increasing the pressure of the coolant.
- 2 Some engines use \_\_\_\_\_. This means that the coolant flows from the radiator to the cylinder head(s) before flowing to the engine block.
- 3 In series flow systems, b \_\_\_\_\_ or steam slits in the gasket, block, and head perform the function of letting out the steam.
- 4 A second type of thermal fan has a \_\_\_\_\_ added to the silicone coupling fan drive.
- 10 Coolant leaving the pump impeller is fed through a \_\_\_\_\_.
- 12 However, many vehicles manufactured in Japan or Europe use radiator pressure indicated in a unit called a \_\_\_\_\_.