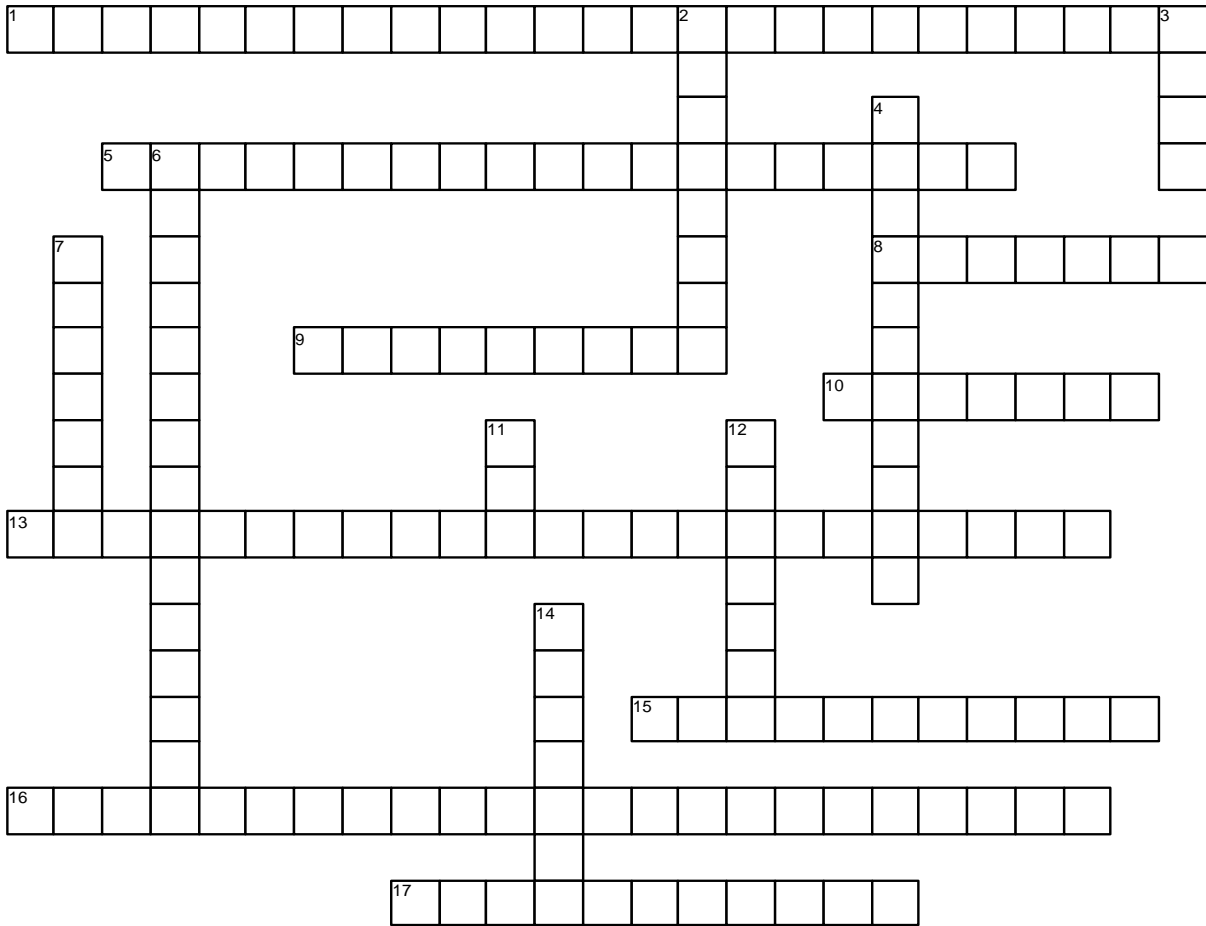


# Lubrication System Operation And Diagnosis

## Chapter 23



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### ACROSS

- 1** All oil pumps are called \_\_\_\_\_, and each rotation of the pump delivers the same volume of oil.
- 5** \_\_\_\_\_ is where the oil film is thick enough to keep the surfaces from seizing, but can allow some contact to occur.
- 8** In a \_\_\_\_\_ system, the oil pan is shallow and the oil is pumped into a remote reservoir.
- 9** A \_\_\_\_\_ oil pump is driven by the crankshaft and uses a special lobe-shape gear meshing with the inside of a lobed rotor.
- 10** In most engines, oil is held in the oil pan and the oil pump draws the oil from the bottom, this is called a \_\_\_\_\_ oil system.

- 13** \_\_\_\_\_ is a wedging action and depends on the force applied to the rate of speed between the objects and the thickness of the oil.
- 15** A \_\_\_\_\_ oil pump is a positive oil displacement pump that uses an inner and outer rotor. The term derives from two words: "generated rotor".
- 16** Another name for the oil pump relief valve is the \_\_\_\_\_.
- 17** The normal engine \_\_\_\_\_ range is from 10 to 60 PSI or 10 PSI per 1000 engine RPM.

### DOWN

- 2** The oil pump is made so that it is large enough to provide pressure at low engine speeds and small enough that it will not \_\_\_\_\_

- at high speed.
- 3** Another name for the oil pan is a \_\_\_\_\_.
- 4** A baffle or \_\_\_\_\_ is sometimes installed in engines to eliminate the oil churning problem.
- 6** Excessive \_\_\_\_\_, either too low or too high, are harmful to any engine.
- 7** Oil from the oil pump first flows through the oil filter then goes through a drilled hole that intersects with a drilled main oil \_\_\_\_\_, or longitudinal header.
- 11** Oil pressure is measured in \_\_\_\_\_.
- 12** \_\_\_\_\_ is a type of positive displacement oil pump that uses an inner and an outer rotor.
- 14** The \_\_\_\_\_ is required to provide 3 to 6 gallons per minute of engine oil to lubricate the engine.