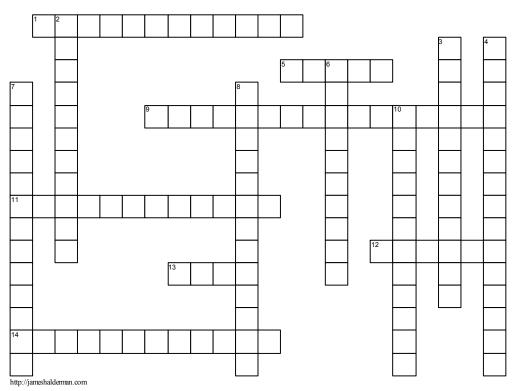
Gasoline Engine Systems

Chapter 2



ACROSS

- 1 ______ is the cubic inch (cu. in.) or cubic centimeters (cc) volume displaced or how much air is moved by all of the pistons.
- **5** A_____ is a complete series of events that continually repeats.
- **9** When the piston is at the bottom of the stroke.
- 11 All engines use a ______ to seal the top of the cylinders, which are in the engine block.
- **12** The _____ of an engine is the distance the piston travels from top dead center to bottom dead center.
- 13 The diameter of a cylinder is called the _____.
- 14 An oil pump, which is driven by the engine, forces oil through the oil filter and then into passages in the crankshaft and block, called _____, to lubricate the main and

rod bearings.

DOWN

- 2 The ______ is open and the piston inside the cylinder travels downward, drawing a mixture of air and fuel into the cylinder.
- 3 A _____ is a one-way piston movement, either from top to bottom or bottom to top of the cylinder.
- 4 The first _____ engine was developed by a German engineer, Nickolaus Otto, in 1876.
- 6 The distance the piston travels from top dead center to bottom dead center is determined by the throw of the _____.
- 7 Changing the _____ length does not change the stroke of an engine.
- 8 When the piston reaches the upper most position in the cylinder.
- 10 The piston forces the residual burned gases out of the _____ and into the exhaust manifold and exhaust system.