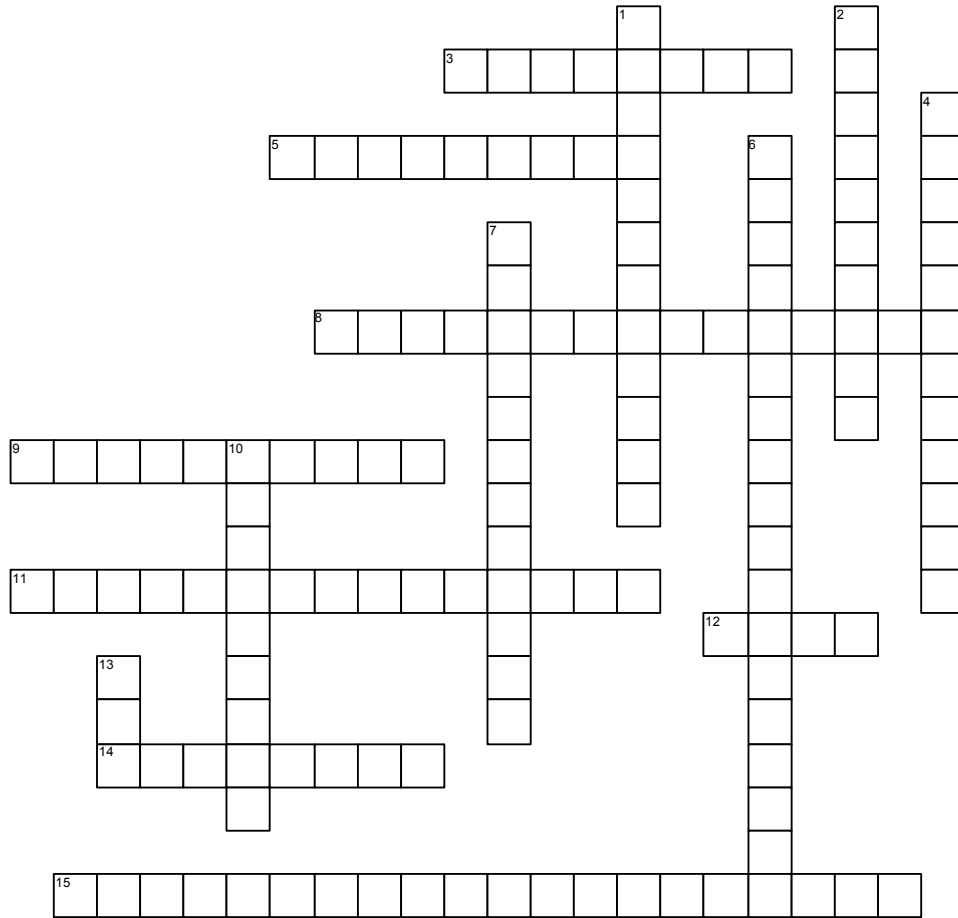


Cranking System

Chapter 17



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ACROSS

- 3 Inside the field coils is an _____ that is supported with either bushings or ball bearings at both ends, which permit it to rotate.
- 5 A _____ uses permanent magnets that maintain constant field strength, the same as a shunt-type motor, so they have similar operating characteristics.
- 8 One end of the field housing is called the _____ - _____.
- 9 Another name for the pole shoes is _____.
- 11 Another name for the commutator-end housing is the _____ - _____.
- 12 Current that works against battery voltage is called _____.
- 14 A small current switch operates a _____ or relay that controls the high current to the starter.
- 15 One end of the field housing is called the _____ - _____.

DOWN

- 1 The _____ uses a small pinion gear that contacts the engine flywheel gear teeth and transmits starter motor power to rotate the engine.
- 2 These magnets, when energized, create strong magnetic fields inside the starter housing and, therefore, are called _____.
- 4 _____ hold the three components of the starter together.
- 6 The ends of the copper armature windings are soldered to _____.
- 7 A starter consists of the main structural support of a starter called the main _____.
- 10 The soft-iron cores are called _____.
- 13 _____ is a system that allows the driver to start the engine of the vehicle from inside the house or a building at a distance of about 200 ft.