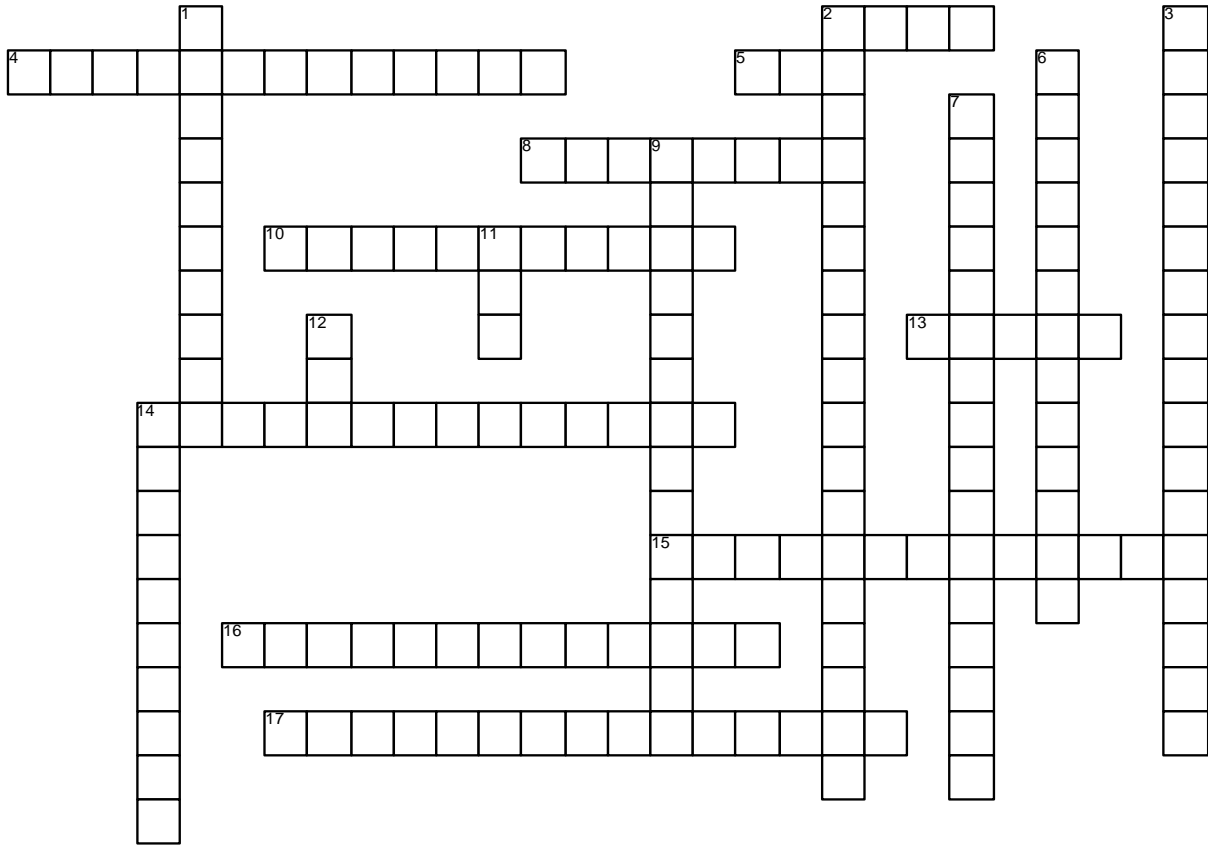


# Hydraulic Power Steering Systems

## Chapter 14



<http://jameshalderman.com>

### ACROSS

- 2 The \_\_\_\_ and the power steering motor are serviced as an assembly and are serviced separately from the steering column assembly.
- 4 Power-assisted steering \_\_\_\_\_ boosts the mechanical steering gear operation so the driver can turn the steering wheel with less effort for the same response.
- 5 The \_\_\_\_ system provides a wide range of power-assisted steering based on the vehicle's operating conditions.
- 8 \_\_\_\_\_ is force applied to a specific area.
- 10 The power steering pump \_\_\_\_\_ is usually fitted to a chrome-plated shaft with a press fit.
- 13 \_\_\_\_\_ is a push or pull acting on an object and is usually measured in pounds or Newtons.
- 14 To handle the excess pressure, a pressure-relief passage runs from a

point near the pressure hose fitting to the spring end of the modulator valve. Inside the passage is a \_\_\_\_\_ - \_\_\_\_\_ valve.

- 15 In an \_\_\_\_\_ steering system, the control valve and a power piston which applies force to the pitman arm are incorporated into the steering gear construction.
- 16 The \_\_\_\_\_ pump draws fluid from the reservoir, pressurizes it, and delivers it to the power steering system.
- 17 A \_\_\_\_\_ is a separate assembly from the pump and provides fluid to it through a suction hose.

### DOWN

- 1 \_\_\_\_\_ is one of GM's four different variable-effort steering systems.
- 2 The correct \_\_\_\_\_ is critical to the operation and service life of the power steering

system.

- 3 An \_\_\_\_\_ is part of the pump, and the pump itself operates submerged in power steering fluid.
- 6 A \_\_\_\_\_ valve is a two-piece assembly that operates by rotating an inner valve within an outer valve.
- 7 A \_\_\_\_\_ installs in the same bore as the hose fitting.
- 9 One of the major components of a \_\_\_\_\_ steering system is the road sensing suspension (RSS) control module.
- 11 A \_\_\_\_ transmits an electronic signal to the PCM when the pressure in the system is high enough to increase the load on the engine.
- 12 \_\_\_\_ systems are designed to provide variable power-assisted steering.
- 14 \_\_\_\_\_ states that pressure on a confined fluid is transmitted equally in all directions and acts with equal force on equal areas.