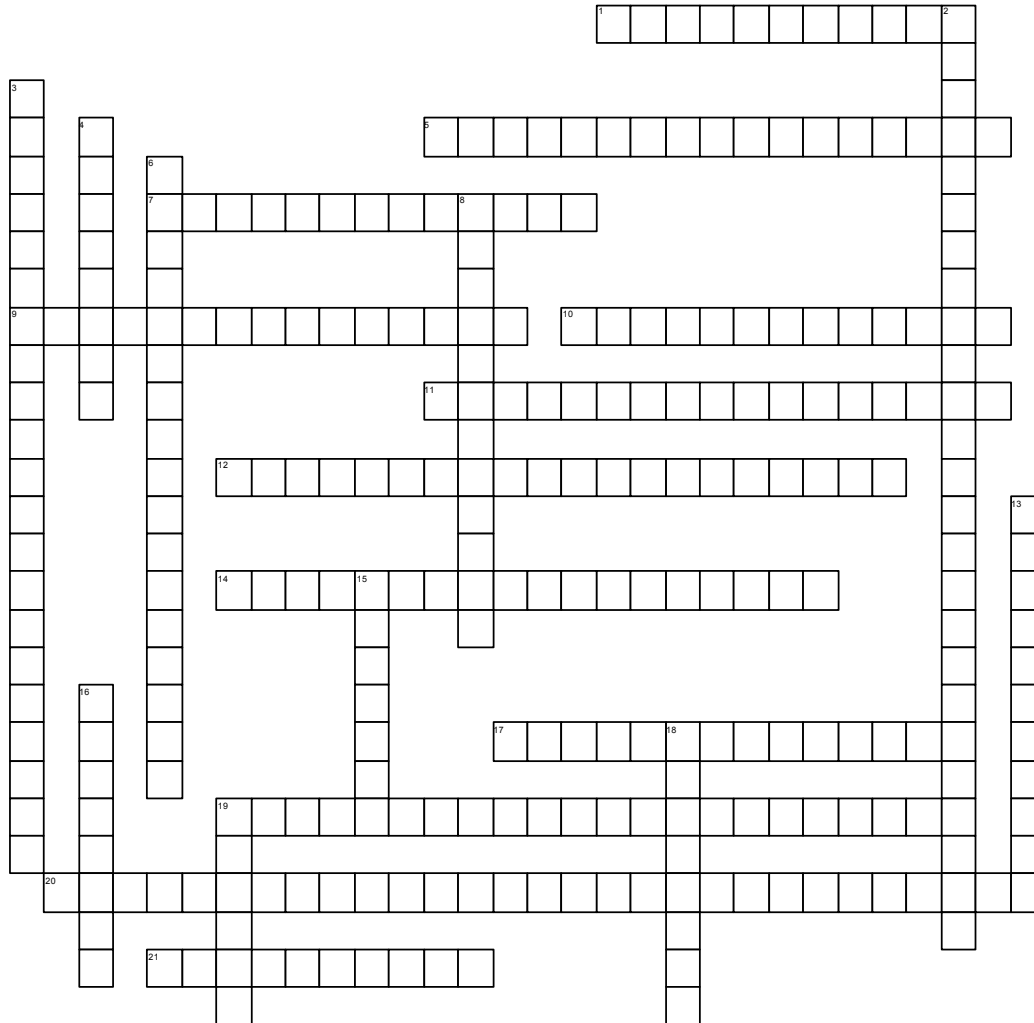


# ABS Components And Operation

## Chapter 106



<http://jameshaldeman.com>

### ACROSS

- 1 The \_\_\_\_\_ is a pressurized storage reservoir.
- 5 Most \_\_\_\_\_ consist of a magnetic pickup and a toothed sensor ring.
- 7 Electronically operated \_\_\_\_\_ are used to hold, release, and reapply hydraulic pressure to the brakes.
- 9 If the wheel speed sensor continues to indicate the wheel is slowing too quickly and is starting to lock, the same solenoid or a second \_\_\_\_\_ is energized to open a vent port that releases pressure from the brake circuit.
- 10 If one wheel starts to slow at a faster rate than the others, or at a faster rate than that which is programmed in the antilock \_\_\_\_\_, it indicates a wheel is starting to slip and is in

- danger of losing traction and locking.
- 11 GM and Chrysler call their version of a single-channel rear-wheel-only ABS system \_\_\_\_\_.
  - 12 The \_\_\_\_\_ is when the solenoid is electrically closed, it becomes hydraulically closed, which blocks off the line and prevents any further pressure from the master cylinder reaching the brake.
  - 14 The \_\_\_\_\_ saves the cost for an additional sensor and reduces the complexity of the system by allowing both rear wheels to be controlled simultaneously.
  - 17 \_\_\_\_\_ systems, which are sometimes referred to as "add-on" systems, have become the most common type of ABS system because of their lower cost and simplicity.
  - 19 \_\_\_\_\_ help prevent the wheels from locking during sudden braking, especially on

- slippery surfaces.
- 20 \_\_\_\_\_ are required on all new vehicles.
  - 21 The ABS warning light is also used for diagnostic purposes when retrieving \_\_\_\_\_ from the ABS module.

### DOWN

- 2 Ford's version of a single-channel rear-wheel-only ABS system is called \_\_\_\_\_.
- 3 During the \_\_\_\_\_, the release and/or isolation solenoids are closed and/or the additional solenoid energized so pressure can be reapplied to the brake from the master cylinder or accumulator to reapply the brake.
- 4 Traction is defined in terms of \_\_\_\_\_, which is the difference between the actual speed and the rate at which the tire tread moves across the road.

- 6 The first step in the standard ABS control strategy is to hold or isolate the pressure in a given brake circuit by closing an \_\_\_\_\_.
- 8 A digital wheel speed sensor is also called an \_\_\_\_\_.
- 13 \_\_\_\_\_ systems combine the brake master cylinder and ABS hydraulic modulator, electric pump, and accumulator into one assembly.
- 15 The term \_\_\_\_\_ always refers to the number of separate or individually controlled ABS hydraulic circuits in an ABS system, not the number of wheel speed sensor electrical circuits.
- 16 Preventing brake lockup is important because of the adverse effect a locked wheel has on tire \_\_\_\_\_.
- 18 Another name for a toothed sensor ring is the \_\_\_\_\_.
- 19 The distance or \_\_\_\_\_ between the end of the sensor and its ring is critical.