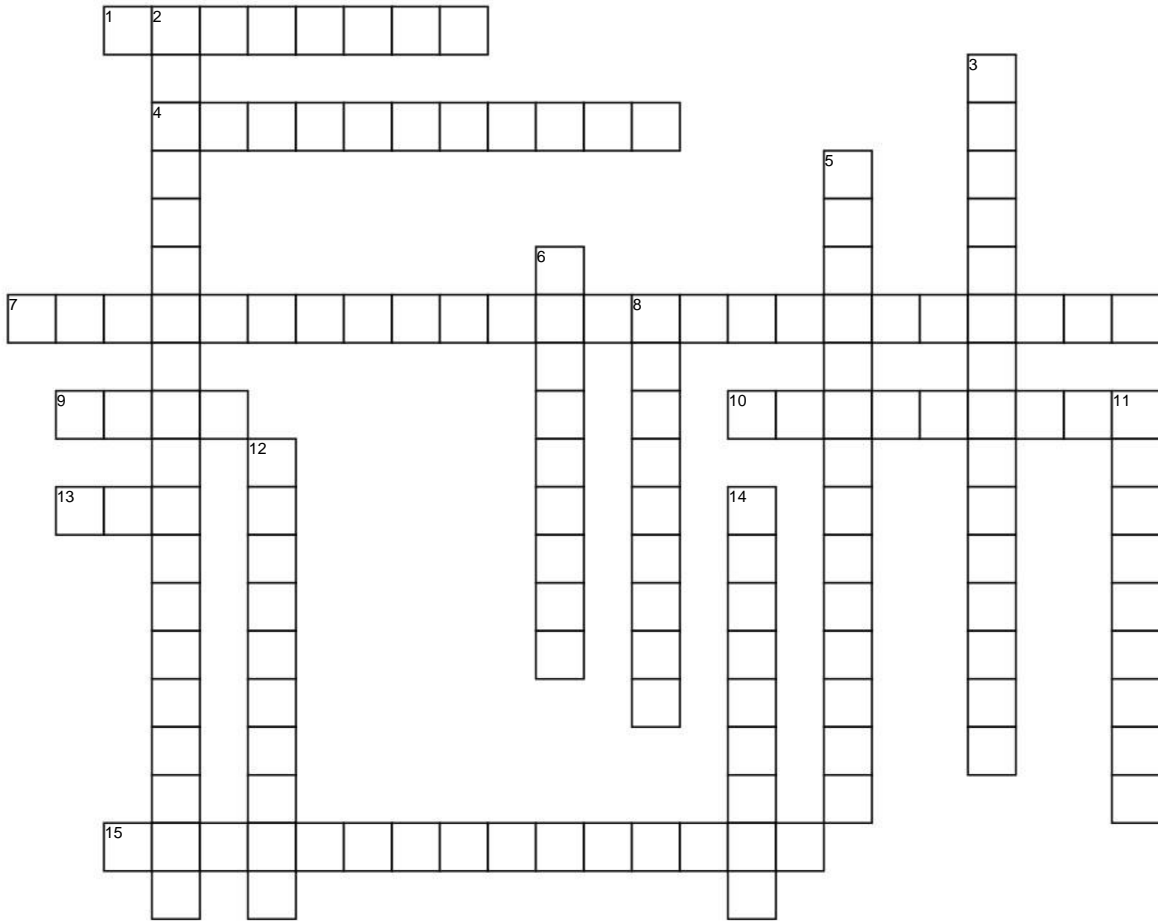


# Front Suspension And Service

## Chapter 7



<http://jameshalderman.com>

### ACROSS

- 1 At the end of many solid I-beam or tube axles are \_\_\_\_\_ that allow the front wheels to rotate for steering.
- 4 A \_\_\_\_\_ can also be used to help locate worn or defective suspension components.
- 7 A \_\_\_\_\_ uses two control arms as well as a structural strut assembly.
- 9 Another name for an SLA suspension is the \_\_\_\_\_ suspension.
- 10 To control longitudinal support, a \_\_\_\_\_ is attached to each beam and is anchored to the frame of the truck using rubber bushings.
- 13 The two main links in a \_\_\_\_\_ suspension are the upper control arm and the lower control arm.
- 15 Early versions of the twin I-beam systems used kingpins, while later models used ball joints to support the \_\_\_\_\_ and spindle.

### DOWN

- 2 Many load-carrying ball joints have wear indicators with a raised area around the grease fitting, called \_\_\_\_\_.
- 3 \_\_\_\_\_ can be of several types, including a MacPherson.
- 5 Defective shock absorbers can cause \_\_\_\_\_.
- 6 A \_\_\_\_\_ front suspension is very strong and is still being used in the manufacture of medium and heavy trucks.
- 8 A \_\_\_\_\_ front suspension was used for over 30 years on Ford pickup trucks and vans.
- 11 Some replacement control arm bushings have a higher \_\_\_\_\_ rating than the original.
- 12 Many GM front-wheel-drive vehicles use a MacPherson strut with a large-diameter spring seat area, this is called a \_\_\_\_\_.
- 14 Some ball joint studs have a slot or groove where a \_\_\_\_\_ is used to hold the ball joint to the steering knuckle.