Front Suspension Service
Chapter 48

ACROSS

3. _________ can be of several types, including a MacPherson.
4. Early versions of the twin I-beam systems used kingpins, while later models used ball joints to support the _________ and spindle.
7. A _________ front suspension is very strong and is still being used in the manufacture of medium and heavy trucks.
11. Some ball joint studs have a slot or groove where a _________ is used to hold the ball joint to the steering knuckle.
12. A _________ uses two control arms as well as a structural strut assembly.
14. Another name for an SLA suspension is the _________ suspension.
15. A _________ front suspension was used for over 30 years on Ford pickup trucks and vans.

DOWN

1. Many load-carrying ball joints have wear indicators with a raised area around the grease fitting, called _________.
2. To control longitudinal support, a _________ is attached to each beam and is anchored to the frame of the truck using rubber bushings.
5. Defective shock absorbers can cause _________.
6. At the end of many solid I-beam or tube axles are _________ that allow the front wheels to rotate for steering.
8. A _________ can also be used to help locate worn or defective suspension components.
9. Many GM front-wheel-drive vehicles use a MacPherson strut with a large-diameter spring seat area, this is called a _________.
10. Some replacement control arm bushings have a higher _________ rating than the original.
13. The two main links in a _________ suspension are the upper control arm and the lower control arm.