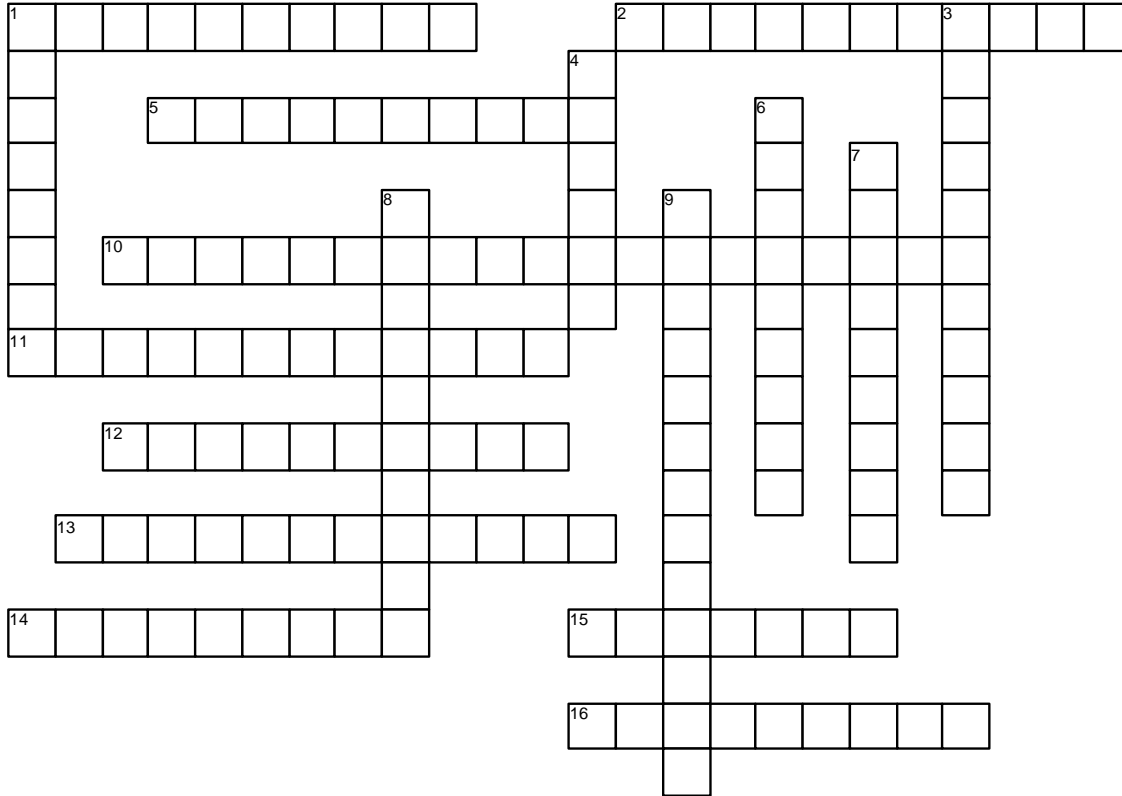


# Alignment Diagnosis And Service

## Chapter 20



<http://jameshalderman.com>

### ACROSS

- 1 A \_\_\_\_\_ alignment uses the thrust angle of the rear wheels and sets the front wheels parallel to the thrust line.
- 2 \_\_\_\_\_ is a term used to describe the lead or pull of a vehicle caused by faults in the steering or suspension system.
- 5 The \_\_\_\_\_ is another term used to describe steering wheel position.
- 10 Many vehicles with IRS use a type of alignment that uses the \_\_\_\_\_ of the vehicle as a basis for all measurements of toe.
- 11 Rear toe is often adjusted using an adjustable tie rod end or an \_\_\_\_\_ on the lower control arm.
- 12 One excessively worn tire could cause unequal \_\_\_\_\_.
- 13 Before checking or adjusting the front-end alignment, a \_\_\_\_\_ check should be performed.
- 14 A \_\_\_\_\_ alignment rule includes a check of the steering wheel.
- 15 Specifications are often published in fractional or decimal degrees, or in degrees and \_\_\_\_\_.
- 16 A measurable amount of alignment change can be made with a \_\_\_\_\_ adjustment.

### DOWN

- 1 The combined toe angle for both wheels is called \_\_\_\_\_.
- 3 \_\_\_\_\_ occurs in front-wheel-drive vehicles when engine torque causes a front wheel to change its angle from straight ahead.
- 4 There are 60 minutes in 1 \_\_\_\_\_.
- 6 A \_\_\_\_\_ alignment is the most accurate alignment method and is necessary to ensure maximum tire wear and vehicle handling.
- 7 Many manufacturers include a \_\_\_\_\_ in the service manual that gives the thickness and location of the shim changes based on the the alignment reading.
- 8 Specifications are often published in \_\_\_\_\_ or decimal degrees.
- 9 The \_\_\_\_\_ sensor is usually located at the base of the steering column inside the vehicle and monitors the driver's steering input from straight ahead.