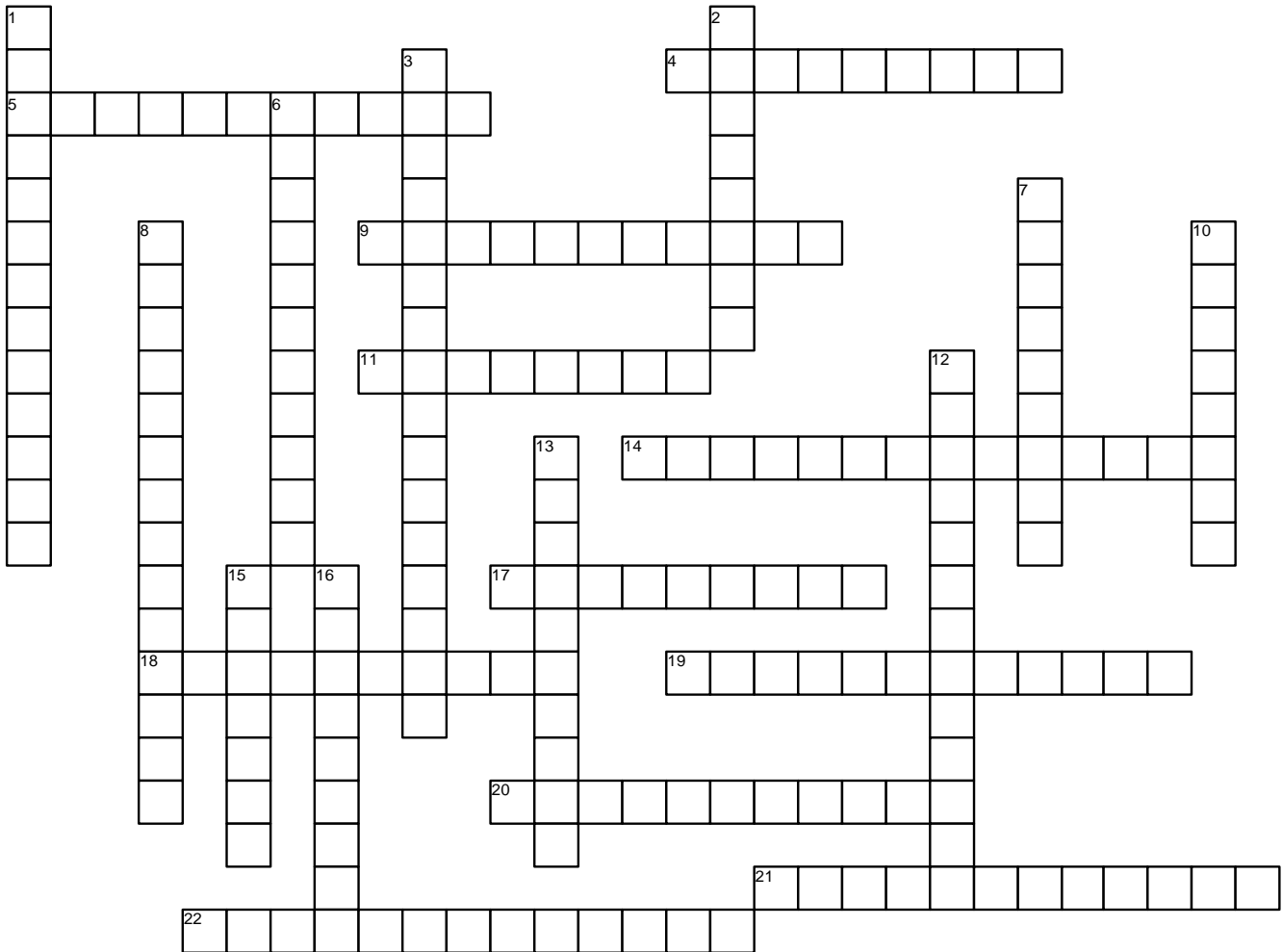


Steering Columns And Gears

Chapter 29



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ACROSS

- 4 As the steering wheel is turned, the movement is transmitted through the steering gear to the _____.
- 5 Federal law requires that all vehicles sold in the US have steering columns and shafts that collapse, called _____ columns.
- 9 The sector gear is part of a _____.
- 11 Gear mesh preload is related to another measurement, called _____.
- 14 The part of the steering wheel where the airbag is stored is called the _____.
- 17 A U-joint connects the lower end of the steering shaft to a small intermediate shaft, called a _____.
- 18 _____ adjustment is what GM calls the gear mesh

preload.

- 19 In a typical _____ column, the steering shaft has a short section at the top joined to the rest of the steering shaft either by a U-joint or gears.
- 20 A spring-loaded _____ and related hardware install through a hole at the back of the steering gear housing to position the rack.
- 21 _____ is a measurement of how much turning force is needed at the input shaft for the pinion to overcome the resistance of the rack and move it.
- 22 The _____ transmits rotary motion from the steering wheel to the steering gear.

DOWN

- 1 The _____ steering

gear is widely used because it is light in weight and takes less space than a conventional steering gear.

- 2 If the driver can feel vibration and road shocks through the steering wheel, the condition is called _____.
- 3 A _____ is a simple device made of rubber, or rubber reinforced with fabric, that is placed between two shafts to allow for a change in angle between them.
- 6 Another name for the pitman shaft is the _____.
- 7 Some steering columns are designed to _____, which means that the top of the steering shaft and jacket can be pulled out toward the driver or pushed in toward the dashboard.
- 8 A _____ consists of two yokes with a steel

crosspiece joining them together.

- 10 The intermediate shaft is splined to a _____ inside a conventional steering gear.
- 12 Most steering gears and some rack-and-pinion steering gears feature a _____.
- 13 Around the worm gear is a nut with gear teeth that meshes with the teeth on a section of a gear called a _____.
- 15 Worm bearing preload is a measurement of how much force is required to turn the steering gear input shaft against the _____ that the thrust bearings apply to the worm gear and shaft.
- 16 Underneath the bearing and housing is a _____ and coil spring that lock the steering shaft into position when the driver removes the ignition key.