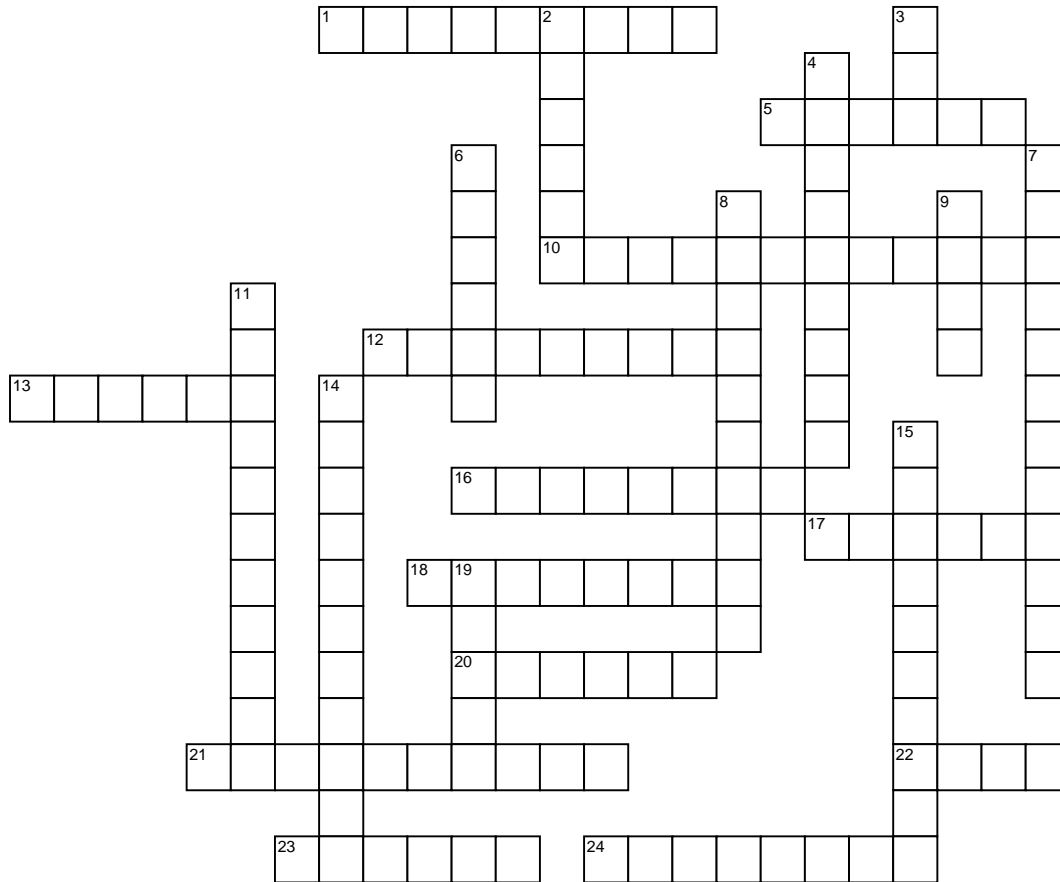


Introduction to Drivetrains

Chapter 2



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ACROSS

- 1 _____ drive (4WD) is often designated as "4 x4" and refers to a vehicle that has
- 5 A _____ carrier holds the planet gears (also called pinions) in position.
- 10 The _____ used in transaxles or drive axles is a torque-splitting device that allows the two axle shafts to operate at different speeds so that a vehicle can turn corners.
- 12 A _____ is a compact combination of a transmission, the final drive gear reduction, and the differential. It can be either a manual, automatic, or continuously variable transaxle.
- 13 The smaller gear(s) in a gear set may also be called a _____ gear.
- 16 _____ drive also called full-time four-wheel drive, vehicles are four-wheel-drive vehicles equipped with a center (inner-axle) differential so they can be operated on pavement in four-wheel drive.
- 17 _____ is a rotating or twisting force that may or may not result in motion.
- 18 _____ are the simplest gears, are

on parallel shafts with teeth cut straight or parallel to the shaft.

- 20 A _____ converter replaces the manual transmission clutch. It is a type of fluid coupling that can release the power flow at slow engine speeds and also multiply the engine torque during acceleration.
- 21 A _____ also called a propeller shaft or prop shaft, transfers power from one component to another.
- 22 A gear set used with shafts that cross each other but do not intersect is the _____ gear.
- 23 The _____ is used to stop the power flow to allow the transmission to be shifted.
- 24 A vehicle will have more pulling power and traction if all of its wheels are driven. This requires a drive axle at each end of the vehicle, another driveshaft, and a _____ case or power transfer unit to drive the additional driveshaft and drive axle.

DOWN

- 2 A variation of the spiral bevel gear is the _____ gear, also called an offset-bevel gear.

- 3 A _____ gear is the gear in the center.
- 4 Most automatic transmissions use _____ gear sets.
- 6 A _____ transmission, also called a standard transmission, is constructed with a group of paths through which power can flow with each path used being a different gear ratio.
- 7 _____ are the most used gear type in transmissions. These gears have teeth cut in a spiral or helix shape.
- 8 _____ are used on nonparallel shafts.
- 9 A _____ gear is also called an annulus gear or internal gear.
- 11 To determine horsepower, a _____ is used to measure the amount of torque an engine can produce at various points through its operating range.
- 14 _____ gears, like helical gears, have curved teeth for quieter operation.
- 15 One _____ is the power required to move 550 pounds one foot in one second, or 33,000 pounds one foot in one minute.
- 19 The effective diameter of a gear is the _____ diameter.