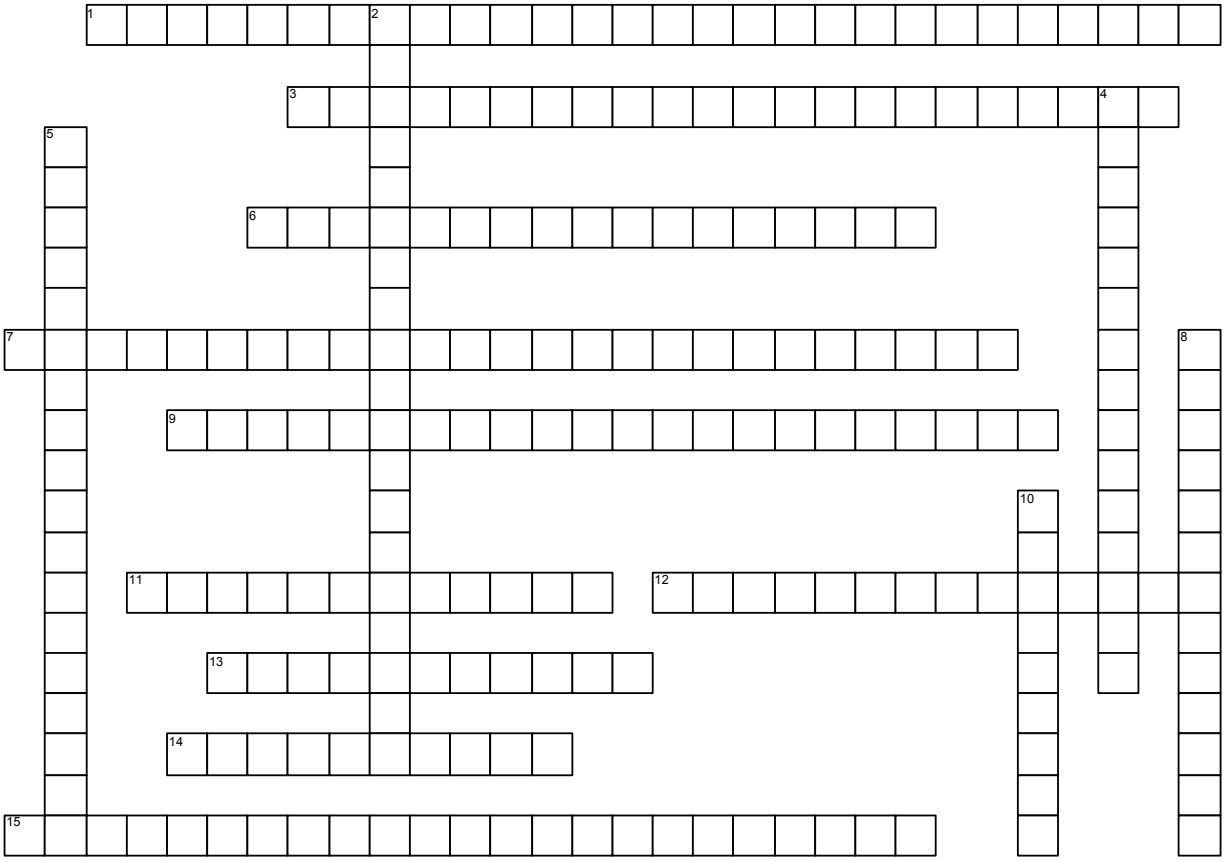
Four-Wheel and All-Wheel Drive

Chapter 15



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ACROSS

1 An _____ _____ ___ _____ system is used to connect or disconnect the outboard CV joint with the wheel hub.

3 ____-____ ____-_____ _____ has a positive, mechanical connection between the front and rear driveshafts when shifted into 4WD.

6 4WD/AWD vehicles that are based on FWD vehicles integrate a _____ _____ ____ into the transaxle.

7 The _____ ____ _____ _____ uses the data from the input and output speed sensors to determine when to shift the transfer case to four-wheel drive.

9 A ____-____ ____-_____ _____ system uses a center differential, which allows for both the front and rear axles to rotate at different speeds.

11 There is a need for a unit, usually a _____ ____, where the engine torque can be split to either one drive axle or both to provide four-wheel drive.

12 ____-_____ _____ for cars, pickups, and light trucks has steadily evolved from the somewhat crude but rugged Jeeps of World War II to sport cars and sport-utility vehicles.

13 Power is applied to the front wheels through the drive axles to the _____ ____.

14 Most front drive axles use an ____ _____ with ball joints for the steering pivots and a Cardan U-joint.

15 In an _____ _____-__-___-___ transfer case the operation of the range clutch and mode synchronizer assembly is controlled by the motor/encoder assembly.

DOWN

2 A _____ _____ _____ is used to control torque between two outputs and are connected in parallel.

4 A _____ _____ is a series of steel plates housed in a sealed steel drum.

5 A _____ _____ is used on AWD systems to prevent driveline harshness and vibration, commonly referred to as "driveline windup."

8 ___-_____ _____ transfer cases that deliver power to both driveshafts all of the time are called mechanically active.

10 The ____ _____ is achieved by the use of a floor-mounted lever to engage and disengage a clutch inside the transfer case.