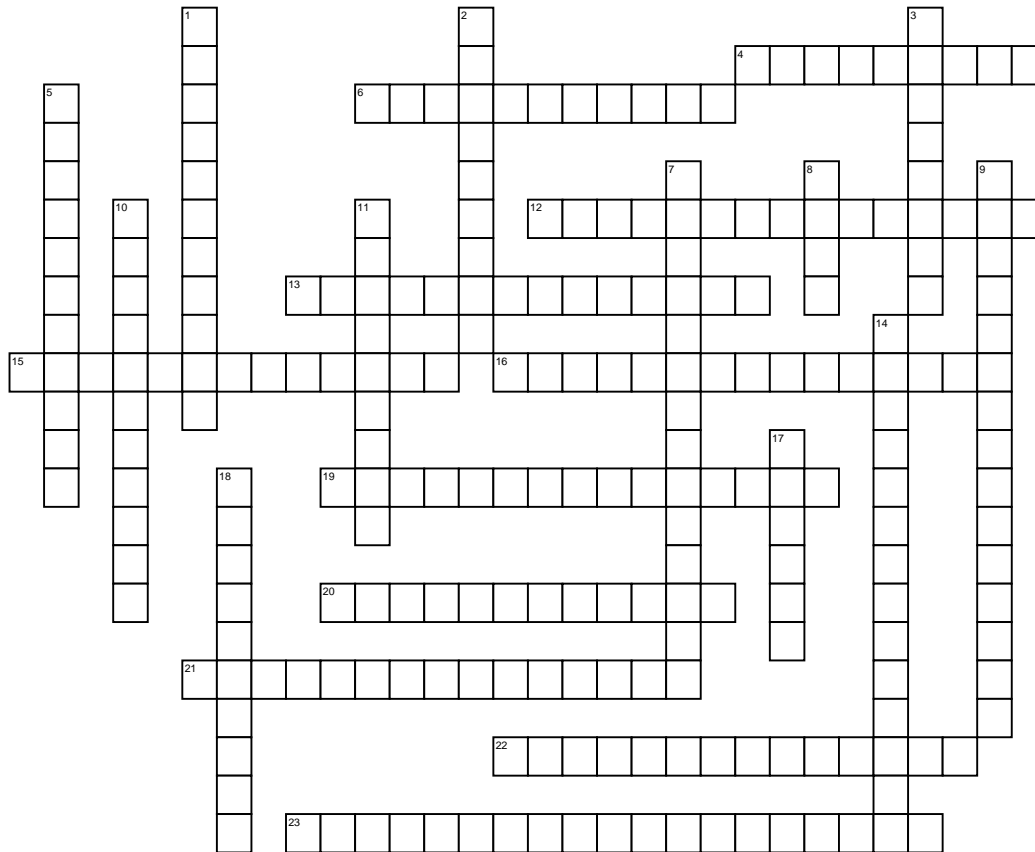


Clutches and Bands

Chapter 8



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ACROSS

- 4 A _____ is an unlined plate that is wavy, not flat.
- 6 _____-_____ plates have friction material on one side only, and half of the plates have lugs on the inner diameter while the other half have them on the outer diameter.
- 12 The unlined plates are called steels, or _____. They are flat pieces of steel stamped into the desired shape.
- 13 The _____ connect the turbine shaft from the torque converter to the elements of the planetary gear train.
- 15 A wave plate is an unlined plate that is wavy, not flat. A Belleville plate, like a Belleville spring, is also not flat. These are often called _____.
- 16 While applying, there should be the proper _____ to get a good, smooth shift.
- 19 A _____ like a Belleville spring, is also not flat.
- 20 Some clutches in an automatic transmission are applied while the vehicle is at rest. The neutral-to-drive

and neutral-to-reverse shifts are called _____.

- 21 The _____ connect (lock) a member of the gear train to the transmission case.
- 22 When a nonsynchronous or asynchronous shift and the shift elements do not need to be synchronized. It is called a _____.
- 23 Some new clutch designs use friction plates with _____.

DOWN

- 1 An _____ is tied hydraulically to the clutch or band servo, and absorbs fluid during the pressure buildup stage when a clutch or band applies.
- 2 A single thick, heavy band, also called a _____.
- 3 A single thin, light band, also called a flexible or _____.
- 5 Chrysler Corporation calls the first clutch the _____.
- 7 Plates lined with friction material are called _____.
- 8 The _____, also called the housing, has internal splines that mate with

external splines on the steel plates for the externally lugged discs, usually the unlined discs (steels).

- 9 A _____ is a type of one-way clutch. It uses spring-loaded, rectangular struts in the face of one clutch ring, called the pocket plate that can engage notches in the face of another ring, called the notch plate.
- 10 A gear set will lock up if it has two ratios at the same time. In order to prevent this from happening, transmission manufacturers adopt the following two strategies: The first strategy is _____, overlap, or clutch-to-clutch shifting.
- 11 The smoothness of the shift is referred to as shift quality or _____.
- 14 While applied, there should be sufficient _____ to transfer torque without slippage.
- 17 The unlined plates are called _____, or separator plates. They are flat pieces of steel stamped into the desired shape.
- 18 _____ bands give more holding power, and are often used for reverse or manual first gears.