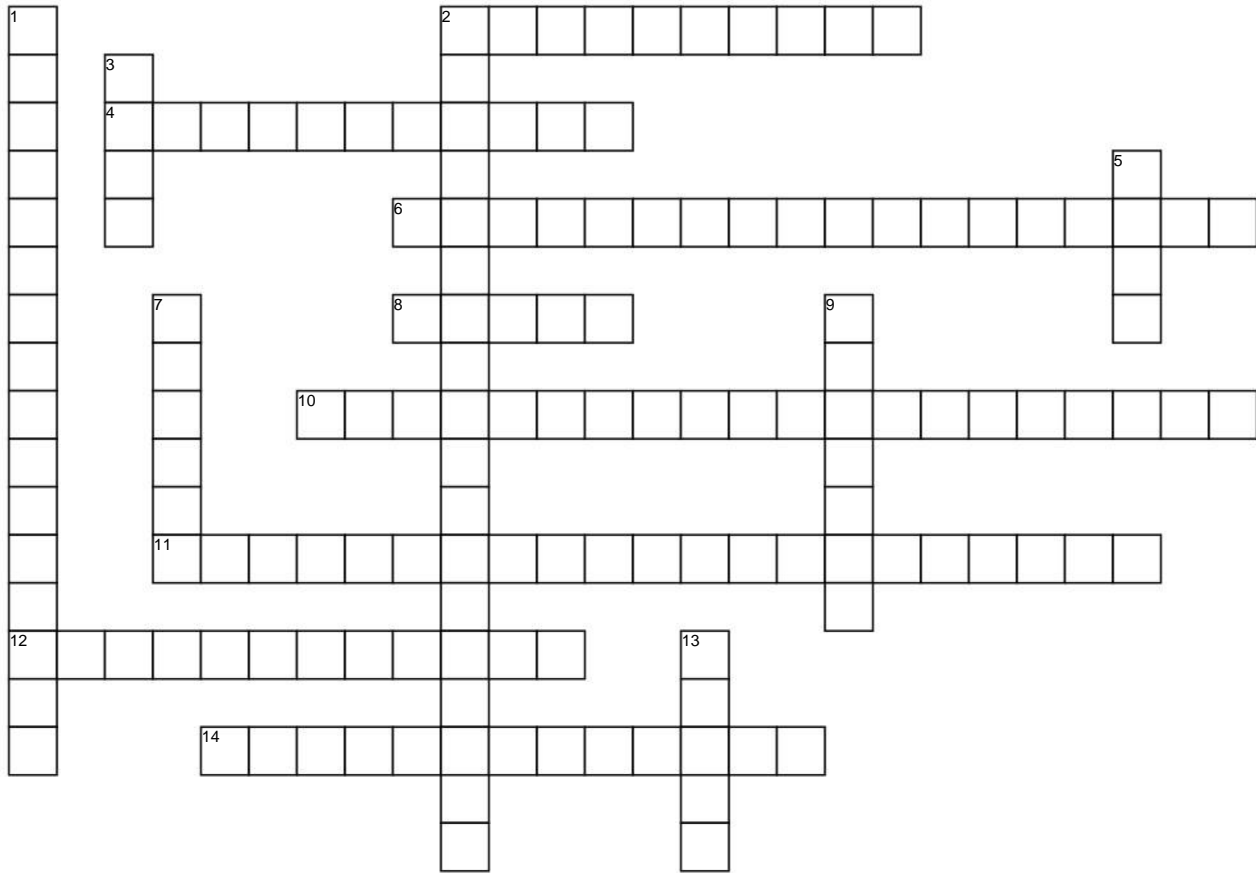


# Regenerative Braking Systems

## Chapter 20



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### ACROSS

- 2 Another name for friction brakes is \_\_\_\_\_.
- 4 The faster an object is \_\_\_\_\_, the more force that has to be applied.
- 6 In \_\_\_\_\_ brake systems, the amount of regeneration is proportional to the brake pedal position.
- 8 A shortened name for regeneration is \_\_\_\_\_.
- 10 A \_\_\_\_\_ braking system is less complex because the base brakes are used along with energy recovery by the motors becoming generators.
- 11 All series regenerative braking systems use an \_\_\_\_\_ system, which includes the hydraulic control unit that manages the brake cylinder pressures, as well as the front-rear axle brake balance.
- 12 \_\_\_\_\_ is the process where electricity becomes electrical energy, which is directed to and recharges the high-voltage battery.
- 14 A hybrid electric vehicle relains energy by converting the energy of a moving object, called \_\_\_\_\_, into electric energy.

### DOWN

- 1 Another name for regeneration is \_\_\_\_\_.
- 2 Some systems use a \_\_\_\_\_ sensor as an input signal to the brake ECU.
- 3 \_\_\_\_\_ is the amount of matter in an object.
- 5 When connected to \_\_\_\_\_ batteries that can charge and discharge very quickly, the package is complete.
- 7 All vehicles generate \_\_\_\_\_ to move the wheels to drive the vehicle down the road.
- 9 \_\_\_\_\_ is the resistance of an object to change its state of motion.
- 13 A \_\_\_\_\_ applied to move an object results in the equation:  $F = ma$ .