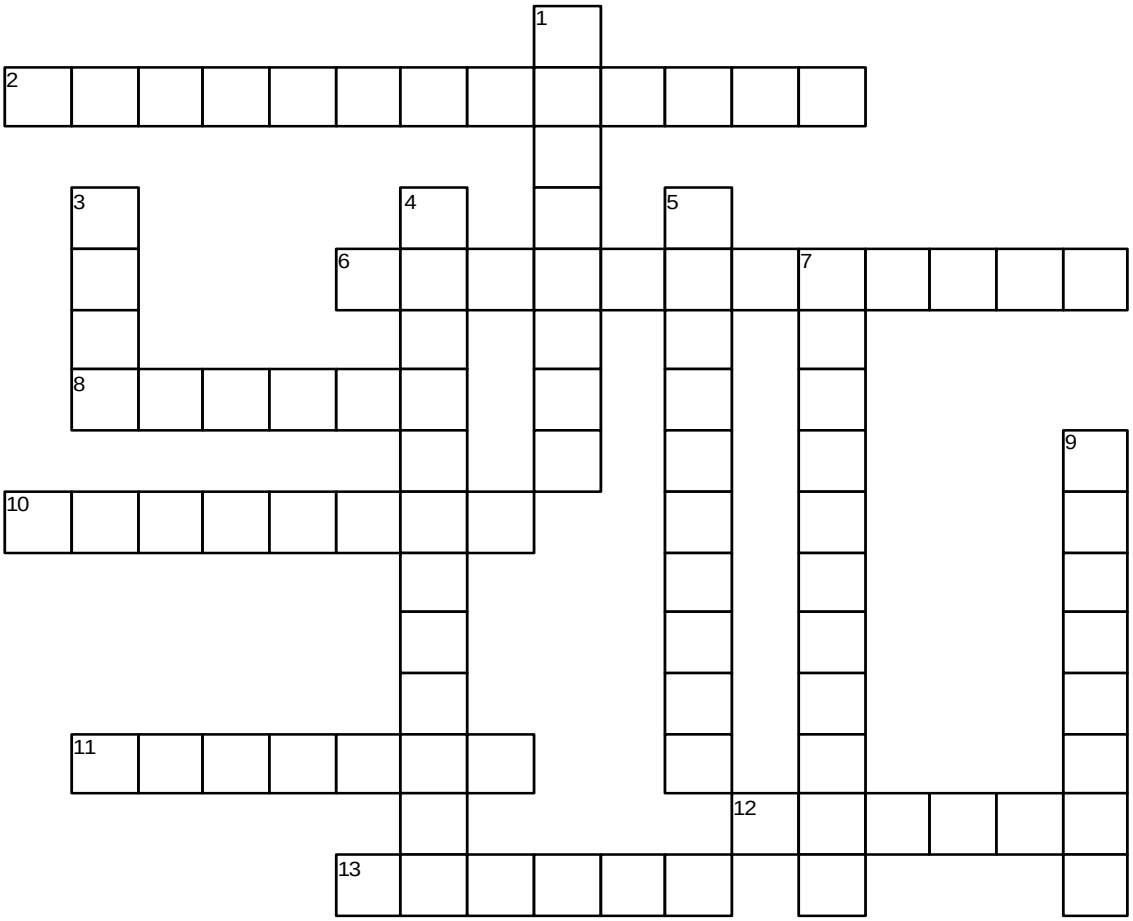
Regenerative Brakes

Chapter 14



http://jameshalderman.com

ACROSS

2 An electric vehicle (EV) or hybrid electric vehicle (HEV) can reclaim energy by converting the energy of a moving object, called _____ _____, into electric energy.

6 _____ rates are measured in units of "feet per second, per second."

8 All vehicles generate _____ to move the wheels to drive the vehicle down the road.

10 A _____ regenerative braking system is less complex because the base (friction) brakes are used along with energy recovery by the motors, becoming generators.

11 a is the resistance of an object to change its state of motion.

12 In _____ regenerative braking systems, the amount of regeneration is proportional to the brake pedal position.

13 Most hybrid electric vehicles use _____ master cylinders that do not look like conventional master cylinders.

DOWN

1 ___-_____ driving means that for normal driving, the driver only needs to use the accelerator pedal to accelerate and decelerate.

3 the energy absorbed by the braking system is lost in the form of ____ and cannot be recovered or stored for use later to help propel the vehicle.

4 This electricity is electrical energy, which is directed to and recharges the high-voltage battery. This process is called _____, regen, or simply "reclaiming energy."

5 One of the unique things about most electric motors is that electrical energy can be converted into _____ energy, and mechanical energy can be converted back into electrical energy.

7 The faster an object is _____, the more force that has to be applied.

9 On the Ford Escape hybrid system, the regenerative braking system checks the integrity of the brake system as a _____-_____.