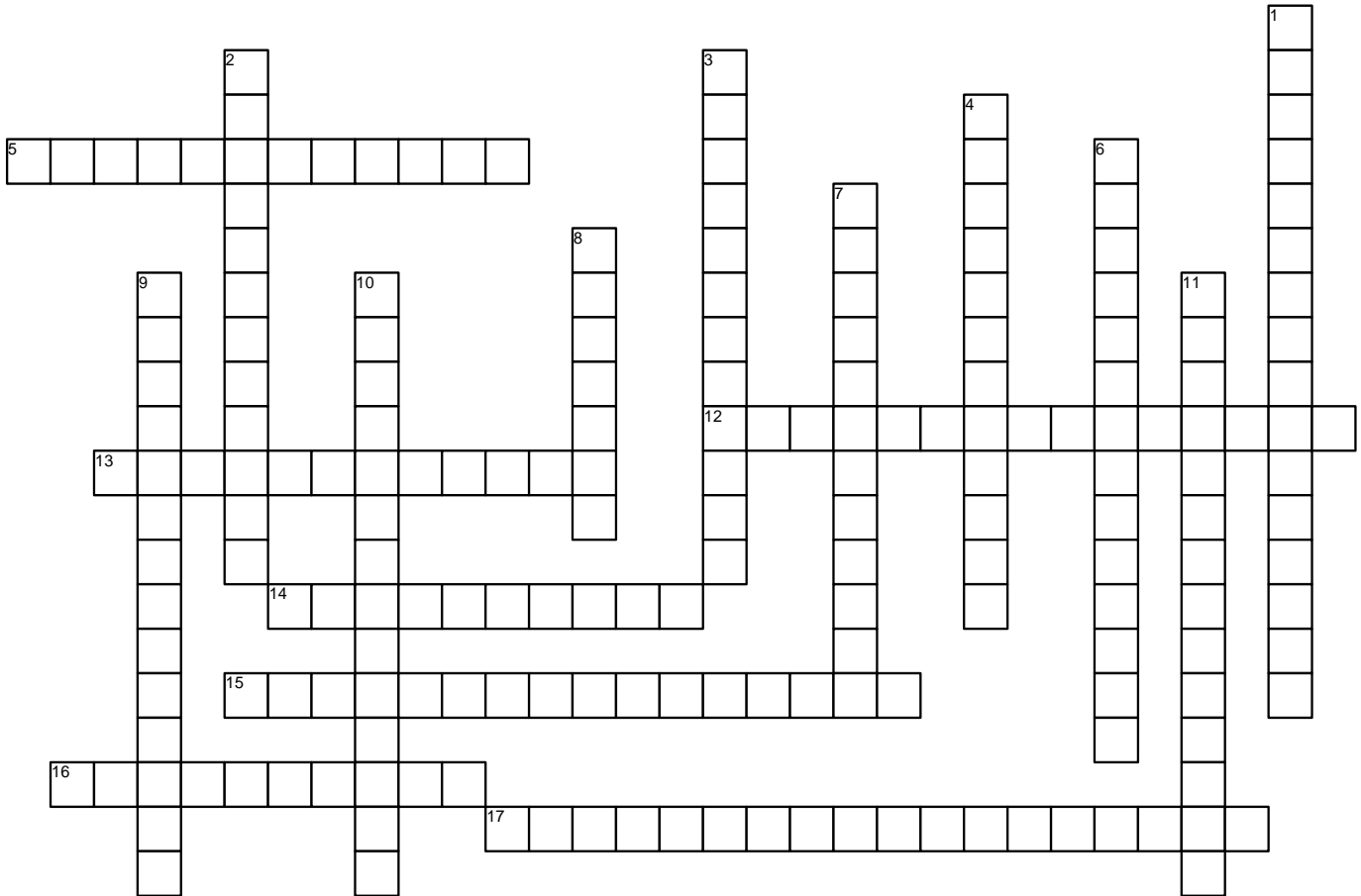


Introduction To Hybrid Vehicles

Chapter 91



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ACROSS

- 5 An _____-electric vehicle is a term used to describe a vehicle where the electric motor is not able to start moving the vehicle on electric power alone.
- 12 Early electric vehicles (EVs) were also called _____ vehicles.
- 13 Legislation was passed in California that included revisions within the _____ vehicle mandate.
- 14 A _____ will incorporate idle stop and regenerative braking but is not capable of using the electric motor to propel the vehicle on its own without help from the internal combustion engine.
- 15 Early _____ used lead-acid batteries, an

electric traction motor, and a mechanical controller.

- 16 A _____, is also called a strong hybrid.
- 17 The _____ engine used in a hybrid vehicle can be either gasoline or diesel, although only gasoline-powered engines are currently used in hybrid vehicles.

DOWN

- 1 A _____ system developed by Valeo uses starter/alternator that is used as a conventional alternator when the engine is running and a starter to start the engine by transmitting power through the belt drive system.
- 2 The motor-generator is larger than a standard starter motor so more

torque can be generated in the cranking mode, also referred to as the _____.

- 3 In a _____ design, the sole propulsion is by a battery-powered electric motor, but the electric energy for the batteries comes from another on-board energy source, such as an internal combustion engine.
- 4 A _____ uses 144- to 158-volt batteries that provide for engine stop/start, regenerative braking, and power assist.
- 6 In a _____ design, multiple propulsion sources can be combined, or one of the energy sources alone can drive the vehicle.
- 7 The _____ turns off the engine when the

vehicle is stopped.

- 8 The _____ in many cities is reserved for use by vehicles that are carrying more than one occupant as a way to encourage carpooling and the use of public transportation.
- 9 The Toyota and Ford hybrids are classified as _____ hybrid because they can operate using electric motor power alone or with the assist of the ICE.
- 10 A _____ vehicles uses both an internal combustion engine and an electric motor to propel the vehicle.
- 11 The belt system, commonly called the _____ starter, is the least expensive system that can be used and still claim that the vehicle is a hybrid.