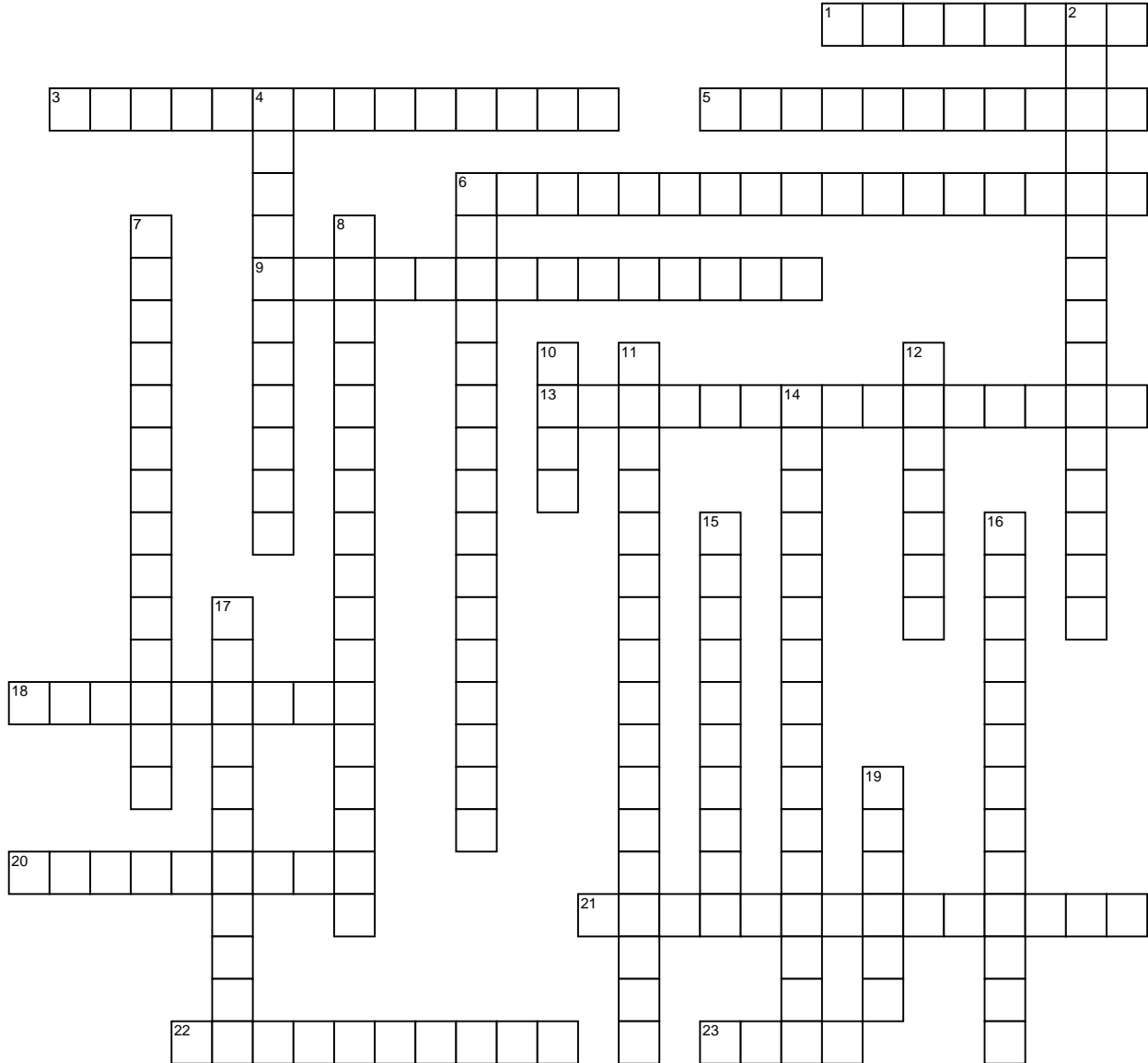


Disc Brakes

Chapter 12



<http://jameshalderman.com>

ACROSS

- 1 The lining of a disc brake is part of an assembly called the _____.
- 3 _____ is not a problem with disc brakes because, unlike a brake drum, the disc brake rotor expands toward the brake linings as it heats up rather than away from them.
- 5 The caliper is free to move within a limited range on an _____ that is solidly mounted to the vehicle suspension.
- 6 Although not required by law, a growing number of vehicle manufacturers are fitting _____ to their brakes for safety reasons.
- 9 Unlike a floating caliper, the body of a _____ mounts in direct metal-to-metal contact with the anchor plate.
- 13 The body of a _____ does not make direct metal-to-metal contact with the anchor plate.
- 18 _____ is the amount of brake drum or rotor friction surface that moves past the brake linings every time the drum or rotor completes a rotation.
- 20 _____ is not a big problem with disc brakes because centrifugal force created by the spinning

rotor throws off most moisture, and the brake pads positioned only a few thousandths of an inch away from the rotor continuously wipe it clean.

- 21 _____ take advantage of the oldest method of lining attachment still in use.
- 22 A large press is used to force the ingredients together to form a _____, which eventually becomes the brake lining.
- 23 Instead of pins and bushings, sliding calipers move on _____ cast and machined into the caliper body and anchor plate.

DOWN

- 2 Most calipers have _____ or springs that hold the pads in the caliper under tension to help prevent vibration.
- 4 Brake pads and linings that use synthetic material such as aramid fibers instead of steel are usually referred to as _____.
- 6 Some automakers call the floating caliper a _____.
- 7 A _____ differs from a standard caliper in the area of the square-cut O-ring.

8 The _____ has a body manufactured in two halves, and uses two, four, or six pistons to apply the brake pads.

- 10 Carbon fiber material is often called _____.
- 11 _____ are found on some disc brake pads.
- 12 _____ is a problem only under severe braking conditions when hot gases and dust particles from the linings are trapped between the brake linings and rotor, where they act as lubricants.
- 14 The bond lowers the _____ of the pad, and the cushion layer dampens any vibration that may still occur.
- 15 _____ can and does occur if the brakes become overheated.
- 16 _____ use high-temperature adhesive to glue the brake block directly to the shoe pad backing plate.
- 17 Synthetic linings use _____ instead of metal as the base material.
- 19 _____ is the Dupont brand name of aramid and a registered trademark of E.I. DuPont de Nemours and Company.