Disc Brakes  
Chapter 12

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.