

Automotive Technology 6th Edition

Chapter 106 – Disc Brake Diagnosis and Service

Lesson Plan



CHAPTER SUMMARY:

1. Disc brake diagnostic procedures, visual inspection, and disc brake caliper service
 2. Servicing disc brake calipers, disc brake squeal correction, and disc brake symptom guide
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OBJECTIVES:

1. Discuss how to diagnose problems with disc brakes.
 2. Describe how to inspect, disassemble, and service disc brake calipers.
 3. Explain disc brake squeal correction.
 4. State the symptoms of a faulty disc brake.
 5. This chapter will help prepare for the Brakes (A5) ASE certification test content area “C” (Disc Brake Diagnosis and Repair).
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet ASE (A5-A-3) P-1:** Brake System Road Test
 2. **Task Sheet ASE (A5-D-1) P-1, (A5-D-2) P-1, (A5-D-3) P-1, (A5-D-4) P-1, (A5-D-5) P-3:** Disc Brake Diagnosis and Service
 3. **Task Sheet ASE (A5-D-11) P-1:** Brake Pad Wear Indicator System
 4. **Task Sheet ASE (A5-D-12) P-1:** Brake Pad Burnishing-In Procedure
 5. Chapter PowerPoint
 6. Chapter Crossword Puzzle and Word Search
 7. Animations: Rotor Runout & Steering Wheel Shake and Rotor Runout
 8. Animations: Rotor Thickness Variation & Brake Pedal Pulsation
 9. Videos: See list at the end of the lesson plan.
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ACTIVITIES:

1. **Task Sheet ASE (A5-A-3) P-1:** Have students complete Brake System Road Test Task Sheet.
 2. **Task Sheet ASE (A5-D-1) P-1, (A5-D-2) P-1, (A5-D-3) P-1, (A5-D-4) P-1, (A5-D-5) P-3:** Have students complete Disc Brake Diagnosis and Service Task Sheet.
 3. **Task Sheet ASE (A5-D-11) P-1:** Have students complete Brake Pad Wear Indicator System Task Sheet.
 4. **Task Sheet ASE (A5-D-12) P-1:** Have students complete Brake Pad Burnishing-In Procedure Task Sheet.
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ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
 2. Complete end of chapter 10 question quiz.
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CLASS DISCUSSION:

1. Review and group discussion chapter [Frequently Asked Questions](#) and [Tech Tips](#) sections.
 2. Review and group discussion of the five (5) chapter [Review Questions](#).
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NOTES AND EVALUATION:



Videos: (at <http://www.jameshalderman.com>)

Rear brake caliper (time 5:09)
Rear disc brakes (time 8:06)
Replace rear calipers (time 15:35)
Rear caliper replacement part 1 (time 8:58)
Rear caliper replacement part 2 (time 7:28)
Rear disc brakes (time 28:30)
Front disc brake replace (time 9:53)
Honda captive rotors (time 8:23)
Tapered wheel bearing rotors (time 33:08)
Brake caliper overhaul (time 3:29)
Brake pad replacement (time 6:44)
Brake pad replacement (time 11:55)
Rear disc brakes (time 2:48)
Rear brake pads (time 15:04)
Rear brake pad replacement (time 8:50)
Brake pad replacement (time 15:00)
Superduty rear disc brakes (time 22:39)
Brake pads and rotors (time 10:37)
4×4 front rotors (time 7:11)
Rotor replacement (time 5:09)
Disc brakes (time 8:22)
Replace brake calipers and pads (time 3:33)
Sticking caliper diagnosis (time 3:59)
Brake pad replacement (time 3:09)
Front brake pad replacement (time 9:53)
Rear disc brake pads and rotors (time 15:59)
Brake rotors (time 1:38)
Disc brakes (time 1:43)
How to Replace Your Car's Brake Pads (time 6:24)
Front Brake Pad and Rotor Replacement (time 13:13)
How to Replace a Brake Caliper (time 12:28)