

# Automotive Technology 6<sup>th</sup> Edition

## Chapter 107 – Parking Brake Operation, Diagnosis, and Service

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Parking brake standards, pedals, levers, and handles
  2. Parking brake warning lamp, parking brake linkages, and front and rear entry parking brake cables
  3. Drum parking brakes and caliper-actuated disc parking brakes
  4. Parking brake cable adjustment and electric parking brake
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#### **OBJECTIVES:**

1. Discuss parking brake standards, components, warning lamp and automatic parking brake release.
  2. Explain parking brake linkages.
  3. Describe drum parking brakes.
  4. Describe caliper-actuated disc parking brakes.
  5. Explain how to adjust a parking brake properly.
  6. Discuss electric parking brakes.
  7. This chapter will help prepare for the Brakes (A5) ASE certification test content area "A" (Hydraulic, Power Assist, and Parking Brake Systems Diagnosis and Repair).
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#### **RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet ASE (A5-D-10) P-2:** Rear Disc Parking Brake Adjustment
  2. **Task Sheet ASE (A5-F-3) P-1:** Parking Brake Adjustment
  3. **Task Sheet ASE (A5-F-4) P-1:** Parking Brake Operation
  4. Chapter PowerPoint
  5. Chapter Crossword Puzzle and Word Search
  6. Animations: Parking Brake Warning Light
  7. Videos: See list at the end of the lesson plan.
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#### **ACTIVITIES:**

1. **Task Sheet ASE (A5-D-10) P-2:** Have students complete Rear Disc Parking Brake Adjustment Task Sheet.
  2. **Task Sheet ASE (A5-F-3) P-1:** Have students complete Parking Brake Adjustment Task Sheet.
  3. **Task Sheet ASE (A5-F-4) P-1:** Have students complete Parking Brake Operation 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:**



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

- Park brake handle repair (time 1:47)
- Parking brake adjustment (time 2:33)
- Park brake shoes (time 4:31)
- Parking brake release cable (time 5:54)
- Parking brake cable replace (time 2:21)
- Emergency brake service (time 14:17)
- Parking brake cable replace (time 9:58)
- Parking brake cable replace (time 0:54)
- Parking brake operation (time 1:00)
- Parking brake failure (time 0:26)
- Park brake failure (time 1:27)
- Corvette parking brakes part 1 (time 2:20)
- Corvette parking brakes part (time 3:54)
- Emergency brake inspection and repair (time 3:48)
- Emergency brake adjust (time 4:53)
- Rear caliper with parking brake (time 2:04)
- Brake cable removal (time 2:36)
- Install brake cable (time 1:41)
- Brake cable removal (time 1:56)
- Adjust your car/truck's E-brake Cable (time 7:22)