**Automotive Chassis Systems 8th Edition**

**Chapter 19 –** **ABS Diagnosis and Service**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. ABS Fault Diagnosis, Retrieving ABS Codes on Older Vehicles, and ABS Diagnosis

2. Wheel Speed Sensor Diagnosis, Hydraulic ABS Service, and ABS Safety Precautions

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**OBJECTIVES:**

1. Explain the ABS diagnostic procedure and retrieval of diagnostic codes.

2. Explain how to diagnose the OBD-II ABS system.

3. Explain how to diagnose wheel speed sensors.

4. List the steps in the hydraulic ABS service procedure.

5. Discuss ABS safety precautions.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Electronic Brake (ABS) Component Inspection

2. Task Sheet: Electronic Brake (ABS) Fault Diagnosis

3. Task Sheet: Depressurization of High-Pressure ABS

4. Task Sheet: Bleed ABS Hydraulic Circuits

5. Task Sheet: ABS Wheel Speed Sensor Testing

6. Task Sheet: Modified Vehicle ABS Problem Diagnosis

7. [Crossword Puzzle and Word Search](https://jameshalderman.com/a5_puzzles_lib_page/)

8. [Videos: ASE A5 Brakes](https://jameshalderman.com/a5_vid_lib_page/)

9. [Animations: ASE A5 Brakes](https://jameshalderman.com/a5_anim_lib_page/)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ACTIVITIES:**

1. Task Sheet: Electronic Brake (ABS) Component Inspection

2. Task Sheet: Electronic Brake (ABS) Fault Diagnosis

3. Task Sheet: Depressurization of High-Pressure ABS

4. Task Sheet: Bleed ABS Hydraulic Circuits

5. Task Sheet: ABS Wheel Speed Sensor Testing

6. Task Sheet: Modified Vehicle ABS Problem Diagnosis

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ASSIGNMENTS:**

1. Chapter crossword and word search puzzles from the website.

2. Complete end of chapter quiz from the textbook.

3. Complete multiple choice and short answer quizzes downloaded from the website.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**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.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NOTES AND EVALUATION:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_