**Automotive Technology 6th Edition**

**Chapter 134 –** **Hydraulic Components and Control Systems**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Automatic transmission fluid, automatic transmission fluid cooler, and transmission oil pump

2. Apply or holding devices, bands, multiple-plate clutches, accumulators, and one-way clutches

3. Valve body and hydraulically controlled transmission valves

4. Electronically controlled transmissions and typical torque flow

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**OBJECTIVES:**

1. Discuss the different types of automatic transmission fluid.

2. Explain the function of automatic transmission fluid coolers, pumps, and apply/holding devices.

3. Discuss bands, multi-plate clutches, accumulators, and one-way clutches.

4. Explain the construction of a valve body and discuss the operation of hydraulically controlled transmission valves.

5. Explain electronically controlled transmissions and discuss the typical torque flow in these transmissions.

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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

**1.** **Task Sheet ASE (A2-A-12) P-2**: Diagnose Hydraulic Pressure Concerns

**2**. **Task Sheet ASE (A2-B-2) P-2**: Inspect Seals and Gaskets

3. Chapter PowerPoint

4. Chapter Crossword Puzzle and Word Search

5. Videos: [(A2) Automatic Transmissions and Transaxles Videos](https://jameshalderman.com/a2_vid_lib_page/)

6. Animations: [(A2) Automatic Transmissions and Transaxles Animations](https://jameshalderman.com/a2_anim_lib_page/)

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**ACTIVITIES:**

**1. Task Sheet ASE (A2-A-12) P-2**: Have students complete Diagnose Hydraulic Pressure Concerns Task Sheet.

**2**. **Task Sheet ASE (A2-B-2) P-2**: Have students complete Inspect Seals and Gaskets 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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