**Automotive Technology 6th Edition**

**Chapter 136 –** **Automatic Transmission/Transaxle Unit Repair**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Verify the need for unit repair and removing the automatic transmission/transaxle for service

2. Automatic transmission/transaxle disassembly

3. Reassembling an automatic transmission/transaxle and flushing the cooler and torque converter

4. Dynamometric testing the automatic transmission/transaxle

5. Reinstalling the automatic transmission/transaxle and road test

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**OBJECTIVES:**

1. Discuss the steps involved in removing and disassembling the automatic transmission/transaxle.

2. Describe how to reassemble, reinstall, and test an automatic transmission/transaxle.

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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-B-2) P-2**: Replace Seals and Gaskets

**2**. **Task Sheet ASE (A2-C-1) P-2**: Remove/Install Auto Transmission/Transaxle

**3**. **Task Sheet ASE (A2-C-6) P-1**: Disassemble Auto Transmission/Transaxle

**4**. **Task Sheet ASE (A2-C-7) P-2**: Inspect and Service Valve Body Assembly

**5**. **Task Sheet ASE (A2-C-8) P-2**: Inspect Servo Bore, Piston, and Seals

**6**. **Task Sheet ASE (A2-C-9) P-1**: Assemble Automatic Transmission/Transaxle

**7**. **Task Sheet ASE (A2-B-2) P-2**:FlushCooler Lines

**8**. **Task Sheet ASE (A2-C-3) P-2**: Inspect Converter Flex Plate

**9**. **Task Sheet ASE (A2-C-1) P-2**: Install Torque Converter

**10. Task Sheet ASE (A2-C-10) P-2**: Inspect Oil Pump Assembly

**11. Task Sheet ASE (A2-C-11) P-1**: Endplay/Preload Measurement

**12. Task Sheet ASE (A2-C-12) P-2**: Thrust Washer and Bearing Inspection

**13. Task Sheet ASE (A2-C-13) P-2**: Inspect Oil Seals and Grooves

**14. Task Sheet ASE (A2-C-14) P-2**: Bushing Inspection

**15. Task Sheet ASE (A2-C-15) P-2**: Planetary Gear Assembly Inspection

**16. Task Sheet ASE (A2-C-16) P-2**: Auto Transmission/Transaxle Case Inspection

**17. Task Sheet ASE (A2-C-17) P-2**: Transaxle Drive Chain Inspection

**18.** **Task Sheet ASE (A2-C-18) P-2**: Transaxle Final Drive Inspection

**19. Task Sheet ASE (A2-C-19) P-2**: Clutch Drum Assembly Inspection

**20. Task Sheet ASE (A2-C-20) P-1, (A2-C-21) P-1**: Clutch Pack Clearance and Air Check

**21. Task Sheet ASE (A2-C-22) P-2**: Inspect One-Way Clutches

**22. Task Sheet ASE (A2-C-4) P-3**: Continuously Variable Transmission

**23. Task Sheet ASE (A2-C-5) P-3**: Hybrid Vehicle Drive Train

24. Chapter PowerPoint

25. Chapter Crossword Puzzle and Word Search

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

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

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**ACTIVITIES:**

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

**2**. **Task Sheet ASE (A2-C-1) P-2**: Have students complete Remove/Install Auto Transmission/Transaxle Task Sheet.

**3**. **Task Sheet ASE (A2-C-6) P-1**: Have students complete Disassemble Auto Transmission/Transaxle Task Sheet.

**4**. **Task Sheet ASE (A2-C-7) P-2**: Have students complete Inspect and Service Valve Body Assembly Task Sheet.

**5**. **Task Sheet ASE (A2-C-8) P-2**: Have students complete Inspect Servo Bore, Piston, and Seals Task Sheet.

**6**. **Task Sheet ASE (A2-C-9) P-1**: Have students complete Assemble Automatic Transmission/Transaxle Task Sheet.

**7**. **Task Sheet ASE (A2-B-2) P-2**:Have students complete FlushCooler Lines Task Sheet.

**8**. **Task Sheet ASE (A2-C-3) P-2**: Have students complete Inspect Converter Flex Plate Task Sheet.

**9**. **Task Sheet ASE (A2-C-1) P-2**: Have students complete Install Torque Converter Task Sheet.

**10. Task Sheet ASE (A2-C-10) P-2**: Have students complete Inspect Oil Pump Assembly Task Sheet.

**11. Task Sheet ASE (A2-C-11) P-1**: Have students complete Endplay/Preload Measurement Task Sheet.

**12. Task Sheet ASE (A2-C-12) P-2**: Have students complete Thrust Washer and Bearing Inspection Task Sheet.

**13. Task Sheet ASE (A2-C-13) P-2**: Have students complete Inspect Oil Seals and Grooves Task Sheet.

**14. Task Sheet ASE (A2-C-14) P-2**: Have students complete Bushing Inspection Task Sheet.

**15. Task Sheet ASE (A2-C-15) P-2**: Have students complete Planetary Gear Assembly Inspection Task Sheet.

**16. Task Sheet ASE (A2-C-16) P-2**: Have students complete Auto Transmission/Transaxle Case Inspection Task Sheet.

**17. Task Sheet ASE (A2-C-17) P-2**: Have students complete Transaxle Drive Chain Inspection Task Sheet.

**18.** **Task Sheet ASE (A2-C-18) P-2**: Have students complete Transaxle Final Drive Inspection Task Sheet.

**19. Task Sheet ASE (A2-C-19) P-2**: Have students complete Clutch Drum Assembly Inspection Task Sheet.

**20. Task Sheet ASE (A2-C-20) P-1, (A2-C-21) P-1**: Have students complete Clutch Pack Clearance and Air Check Task Sheet.

**21. Task Sheet ASE (A2-C-22) P-2**: Have students complete Inspect One-Way Clutches Task Sheet.

**22. Task Sheet ASE (A2-C-4) P-3**: Have students complete Continuously Variable Transmission Task Sheet.

**23. Task Sheet ASE (A2-C-5) P-3**: Have students complete Hybrid Vehicle Drive Train 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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