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



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.



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: Flush Cooler 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
- 27. Animations: (A2) Automatic Transmissions and Transaxles Animations



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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 Flush Cooler 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.



ASSIGNMENTS:

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

(1)

CLASS DISCUSSION:

- 1. Review and group discussion chapter <u>Frequently Asked Questions</u> and <u>Tech Tips</u> sections.
- 2. Review and group discussion of the five (5) chapter Review Questions.



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NOTES AND EVALUATION:



