

Automotive Technology 6th Edition

Chapter 123 – Electric Power Steering Systems

Lesson Plan



CHAPTER SUMMARY:

1. Electric power steering overview, EPS system parts and operation, and steering shaft torque sensor
 2. Steering wheel position sensor, power steering motor, and power steering control module (PSCM)
 3. EPS diagnosis, self-parking system, and electro-hydraulic power steering
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OBJECTIVES:

1. Describe the purpose, and function, and types of electric power steering systems.
 2. Explain how electric power steering systems operate.
 3. Discuss how to diagnose electric power steering system faults.
 4. Describe the self-parking feature and its relationship to power steering.
 5. Describe electro-hydraulic power steering.
 6. This chapter will help prepare for the Steering and Suspension (A4) ASE certification test content area “A” (Steering Systems Diagnosis and Repair).
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet ASE (A4-B-18) P-2:** Electronically Controlled Steering Systems
 2. **Task Sheet ASE (A4-B-19) P-2:** HEV Power Steering Circuits Services
 3. Chapter PowerPoint
 4. Chapter Crossword Puzzle and Word Search
 5. Animations: Steering Linkage Operation
 6. Videos: Power Steering Fluid Change QUICK and EASY (time 7:59) and Rotary Control Valve (time 3:16)
 7. Videos: Car Tech 101: Power Steering Explained (time 4:51) and Rack and Pinion Steering (time 0:59)
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ACTIVITIES:

1. **Task Sheet ASE (A4-B-18) P-2:** Have students complete Electronically Controlled Steering Systems Task Sheet.
 2. **Task Sheet ASE (A4-B-19) P-2:** Have students complete HEV Power Steering Circuits Services 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:

