

# Automotive Technology 6<sup>th</sup> Edition

## Chapter 121 – Steering Linkage and Service

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Steering linkage, rack-and pinion inner tie rod ends, and front steer versus rear steer
  2. Four-wheel steering systems, steering linkage lubrication, and dry park test
  3. Common wear items, under-vehicle inspection, and steering linkage replacement
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#### **OBJECTIVES:**

1. Identify steering linkage components.
  2. Describe rack-and-pinion inner tie rod ends.
  3. Describe four-wheel steering systems.
  4. Discuss steering linkage lubrication.
  5. Describe the purpose and procedure for performing a dry park test.
  6. List common wear items in steering systems.
  7. Describe the steps for under-vehicle inspection of steering systems.
  8. Explain how to replace steering linkage parts.
  9. This chapter will help prepare for Suspension and Steering (A4) ASE certification test content area “A” (Steering System Diagnosis and Repair).
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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

1. **Task Sheet ASE (A4-A-2) P-1:** Steering Problem Diagnosis
  2. **Task Sheet ASE (A4-B-8) P-1:** Inner Tie Rod Ends and Bellows Boots
  3. **Task Sheet ASE (A4-B-16) P-2, (A4-C-6) P-3:** Inspect and Replace Steering Components
  4. **Task Sheet ASE (A4-B-17) P-1:** Tie-Rod End Inspection and Replacement
  5. Chapter PowerPoint
  6. Chapter Crossword Puzzle and Word Search
  7. Videos: [\(A4\) Suspension and Steering Videos](#)
  8. Animations: [\(A4\) Suspension and Steering Animations](#)
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#### **ACTIVITIES:**

1. **Task Sheet ASE (A4-A-2) P-1:** Have students complete Steering Problem Diagnosis Task Sheet.
  2. **Task Sheet ASE (A4-B-8) P-1:** Have students complete Inner Tie Rod Ends and Bellows Boots Task Sheet.
  3. **Task Sheet ASE (A4-B-16) P-2, (A4-C-6) P-3:** Have students complete Inspect and Replace Steering Components Task Sheet.
  4. **Task Sheet ASE (A4-B-17) P-1:** Have students complete Tie-Rod End Inspection and Replacement 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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