

Automotive Technology 6th Edition

Chapter 116 – Suspension System Components and Operation

Lesson Plan

CHAPTER SUMMARY:



1. Frame construction, platforms, unsprung weight, and types of suspension
 2. Hook's law, coil springs, leaf springs, torsion bars, and suspension principles
 3. Steering knuckles, control arms, ball joints, strut rods, stabilizer bars, and shock absorbers
 4. Struts and bump stops
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OBJECTIVES:



1. Describe the purpose of a suspension system.
 2. List the various types of suspensions and their component parts.
 3. Define Hooke's law and explain how coil, leaf, and torsion bar springs work.
 4. Describe how suspension components allow wheel movement up and down and provide for turning.
 5. Describe how shock absorbers control spring forces.
 6. Describe the function of bump stops.
 7. This chapter will help prepare for ASE Suspension and Steering (A4) certification content area "B" (Suspension System diagnosis and Repair).
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)



1. **Task Sheet ASE (A4-A-2) P-1:** Suspension and Steering System Information
 2. **Task Sheet ASE (A4-A-1) P-1:** Research Vehicle Service Information
 3. Chapter PowerPoint
 4. Chapter Crossword Puzzle and Word Search
 5. Animations: Suspension Components
 6. Videos: Shocks and struts (time 6:04) and Suspension (time 0:08)
 7. Videos: FWD steering and suspension (time 0:32) and SLA vs McPherson strut (time 3:13)
 8. Videos: How to check shocks and struts in your car (time 3:09)
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ACTIVITIES:



1. **Task Sheet ASE (A4-A-2) P-1:** Have students complete Suspension and Steering System Information Task Sheet.
 2. **Task Sheet ASE (A4-A-1) P-1:** Have students complete Research Vehicle Service Information 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:

