

# Automotive Technology 7<sup>th</sup> Edition

## Chapter 112 – Front Suspension and Service

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Front Suspension Types, and Short-/Long-Arm Suspensions, Strut Suspension
2. Servicing Suspension System



#### **OBJECTIVES:**

1. Describe different front suspension types.
2. Discuss short-/long-arm (SLA) suspension systems.
3. Discuss strut suspension.
4. Explain how to service suspension systems, including a road test, a dry park test, and a visual inspection.
5. Discuss the diagnosis of ball joints.
6. Discuss the diagnosis of shock absorbers and struts.
7. Describe how to replace MacPherson struts.
8. Explain the diagnosis of stabilizer bar links and bushings.
9. Discuss the diagnosis of strut rod bushings.
10. Discuss the diagnosis of front coil springs.
12. Discuss the diagnosis of steering knuckles.
13. Discuss the adjustment of torsion bars.
14. Discuss the diagnosis of control arm bushings.



#### **RESOURCES:** (All resources may be found at jameshalderman.com)

1. Task Sheet: Suspension System Diagnostic Test Drive
2. Task Sheets: Diagnose Suspension Concerns
3. Task Sheets: Suspension Inspection/Component Replacement
4. Task Sheet: Torsion Bar
5. Task Sheet: Strut Rod and Stabilizer Bushings
6. Task Sheet: MacPherson Strut Service
7. Task Sheet: Front Shock Absorber Replacement
8. Task Sheet: Shock Absorber Strut Cartridge Replacement
9. Crossword Puzzle and Word Search
10. Chapter PowerPoint
11. Videos: [\(A4\) Suspension and Steering Videos](#)
12. Animations: [\(A4\) Suspension and Steering Animations](#)



#### **ACTIVITIES:**

1. Task Sheet: Suspension Problem Diagnosis
2. Task Sheets: Diagnose Suspension Concerns
3. Task Sheets: Suspension Inspection/Component Replacement
4. Task Sheet: Torsion Bar
5. Task Sheet: Strut Rod and Stabilizer Bushings
6. Task Sheet: MacPherson Strut Service
7. Task Sheet: Front Shock Absorber Replacement
8. Task Sheet: Shock Absorber Strut Cartridge Replacement
9. Crossword Puzzle and Word Search

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#### **ASSIGNMENTS:**

1. Chapter crossword and word search puzzles from the website.
2. Complete end of chapter quiz from the textbook.
3. Complete multiple choice and short answer quizzes downloaded from the website.



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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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