

# Automotive Chassis Systems 8<sup>th</sup> Edition

## Chapter 2 – Tools and Safety

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Threaded Fasteners, Hand Tools, and Screwdrivers
  2. Torx, Pliers, and Basic Hand Tools List
  3. Tool Sets and Accessories and Electrical Hand Tools
  4. Hand Tools Maintenance, Trouble Lights, Air and Electrically Operated Tools
  5. Personal Protective Equipment, Safety Precautions, and Vehicle Protection
  6. Safety Lifting (Hoisting) a Vehicle, Jacks and Safety Stands, and Drive-On Ramps
  7. Electrical Cord Safety, Jump Starting Battery Safety, and Fire Extinguishers
  8. Fire Blankets, First Aid and Eye Wash Stations, and Hybrid Electric Vehicle Safety Issues
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#### **OBJECTIVES:**

1. Identify the strength ratings of threaded fasteners.
  2. Explain the difference between the brand name (trade name) and the proper name for tools.
  3. Describe what tool is the best to use for each job.
  4. Explain how to maintain hand tools.
  5. Identify the personal protective equipment (PPE) that all service technicians should wear.
  6. Discuss how to safely use hand tools.
  7. Describe how to safely hoist a vehicle.
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#### **RESOURCES:** ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Shop Safety Checklist
  2. Task Sheet: Fire Extinguisher
  3. Task Sheet: Hand Tool Identification
  4. Task Sheet: Power and Shop Equipment Safety
  5. Task Sheet: Oxy-Acetylene Torch Usage
  6. Task Sheet: Vehicle Hoisting
  7. Chapter PowerPoint
  8. [Crossword Puzzle and Word Search](#)
  9. [Videos: A0 Automotive Fundamentals](#)
  10. [Animations: \(A0\) Automotive Fundamentals](#)
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#### **ACTIVITIES:**

1. Task Sheet: Shop Safety Checklist
  2. Task Sheet: Fire Extinguisher
  3. Task Sheet: Hand Tool Identification
  4. Task Sheet: Power and Shop Equipment Safety
  5. Task Sheet: Oxy-Acetylene Torch Usage
  6. Task Sheet: Vehicle Hoisting
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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:**