

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

## Chapter 115 – Steering Columns and Gears

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Steering Wheels, Steering Wheel Removal, Steering Columns, and Conventional Steering Gears
2. Recirculating Ball Steering Gear, and Rack-And-Pinion Steering Gear



#### **OBJECTIVES:**

1. Describe the purpose and function of a steering wheel.
2. Explain how to remove a steering wheel.
3. Discuss steering columns and intermediate shafts.
4. Explain the purpose and function of conventional steering gears.
5. Explain how a recirculating ball steering gear works.
6. Describe how a rack-and-pinion steering gear works.



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

1. Task Sheet: Airbag System and Steering Wheel Service
2. Task Sheet: Steering Column Related Diagnosis
3. Task Sheet: Steering Gear Adjustment/Replacement
4. Task Sheet: Steering Problem Diagnosis
5. Crossword Puzzle and Word Search
6. Chapter PowerPoint
7. Videos: [\(A4\) Suspension and Steering Videos](#)
8. Animations: [\(A4\) Suspension and Steering Animations](#)



#### **ACTIVITIES:**

1. Task Sheet: Airbag System and Steering Wheel Service
2. Task Sheet: Steering Column Related Diagnosis
3. Task Sheet: Steering Gear Adjustment/Replacement
4. Task Sheet: Steering Problem Diagnosis
5. Crossword Puzzle and Word Search



#### **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.



#### **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](#).



#### **NOTES AND EVALUATION:**