

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

## Chapter 119 – Wheel Alignment Principles

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Definition of a Wheel Alignment, Alignment-Related Problems, Caster, and Toe
2. Steering Axis Inclination, Included Angle, Scrub Radius, and Turning Radius (Toe-Out on Turns)
3. Setback, Thrust Angle, Tracking, and Four-Wheel Alignment



#### **OBJECTIVES:**

1. Define wheel alignment.
2. Discuss alignment-related problems.
3. Discuss camber.
4. Discuss caster.
5. Discuss toe.
6. Discuss steering axis inclination (SAI).
7. Discuss included angle.
8. Discuss scrub radius.
9. Discuss turning radius.
10. Discuss setback.
11. Discuss thrust angle.
12. Discuss tracking.
13. Explain the importance of four-wheel alignment.



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

1. Task Sheet: Alignment Specification
2. Crossword Puzzle and Word Search
3. Chapter PowerPoint
4. Videos: [\(A4\) Suspension and Steering Videos](#)
5. Animations: [\(A4\) Suspension and Steering Animations](#)



#### **ACTIVITIES:**

1. Task Sheet: Alignment Specification
2. 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:**