**Automotive Technology 6th Edition**

**Chapter 25 –** **Turbocharging and Supercharging**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Forced induction principles

2. Superchargers and turbochargers

3. Boost control, turbocharger failures, and nitrous oxide

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**OBJECTIVES:**

1. Discuss airflow requirements and volumetric efficiency of engines.

2. Explain forced induction principles.

3. Discuss superchargers

4. Discuss turbochargers and turbocharger failures.

5. Explain boost control. Describe the purpose of a nitrous oxide system.

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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

**1.** **Task Sheet ASE (A8-D-13) P-2**: Test Operation of Turbocharger/Supercharger

2. Chapter PowerPoint

3. Chapter Crossword Puzzle and Word Search

4. Videos: [(A1) Engine Repair Videos](https://jameshalderman.com/a1_vid_lib_page/)

5. Videos: [(A8) Engine Performance Videos](https://jameshalderman.com/a8_vid_lib_page/)

6. Animations: [(A1) Engine Repair Animations](https://jameshalderman.com/a1_anim_lib_page/)

7. Animations: [(A8) Engine Performance Animations](https://jameshalderman.com/a8_anim_lib_page/)

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**ACTIVITIES:**

**1.** **Task Sheet** **ASE (A1 through A8-A-2) P-1:** Have students complete Test Operation of Turbocharger/Supercharger 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:**

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