**Automotive Technology 7th Edition**

**Chapter 15 – Gasoline Engine Operation, Parts, and Specifications**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Purpose and Function, Energy and Power, and Engine Construction and Overview

2. Engine Parts and Systems, Four-Stroke Cycle Operation, and Engine Classification and Construction

3. Engine Measurement, Compression Ratio, and Torque and Horsepower

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**OBJECTIVES:**

1. Discuss the engine’s purpose and function.

2. Explain how engines use energy and power.

3. Discuss engine construction.

4. Explain engine parts and systems.

5. Explain four-stroke cycle operation.

6. Discuss engine classification and construction.

7. Explain engine measurement.

8. Discuss compression ratio.

9. Discuss compression, torque, and horsepower. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Hybrid Vehicle ICE Service Precautions

2. Task Sheet: Gasoline Engine Identification

3. Task Sheet: General Engine Specification

4. Chapter PowerPoint

5. Crossword Puzzle and Word Search

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

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

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**ACTIVITIES:**

1. Task Sheet: Hybrid Vehicle ICE Service Precautions

2. Task Sheet: Gasoline Engine Identification

3. Task Sheet: General Engine Specification

4. 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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