**Automotive Engines Theory and Servicing 10th Edition**

**Chapter 17 – Ignition System Operation and Diagnosis**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Ignition System, Ignition Switching and Triggering, and Distributor Ignition (DI)

2. Waste-Spark Ignition Systems, Coil-On-Plug Ignition, Knock Sensors, and Ignition System Diagnosis

3. Spark Plug Wire Inspection, Spark Plugs, Ignition Wires, and Ignition Symptom Guide

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**OBJECTIVES:**

1. Describe the purpose and function of the ignition system.

2. Discuss ignition switching and triggering.

3. Explain the purpose and function of distributor ignition systems.

4. Discuss waste-spark ignition systems and coil-on-plug ignition systems.

5. Discuss the purpose and function of knock sensors.

6. Explain ignition system diagnosis.

7. Explain spark plug construction, service, and how to conduct a spark plug wire inspection.

8. Explain ignition timing, and discuss the symptoms of a faulty ignition system.

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**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Ignition System Information

2. Task Sheet: Ignition System Identification

3. Chapter PowerPoint

4. [Crossword Puzzle and Word Search (A6)](https://jameshalderman.com/a6_puzzles_lib_page/)

5. [Videos: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_vid_lib_page/)

6. [Animations: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Ignition System Information

2. Task Sheet: Ignition System Identification

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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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