**Advanced Engine Performance Diagnosis 7th Edition**

**Chapter 23 –** **Gasoline Direct-Injection Systems**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Direct Fuel Injection, Direct-Injection Delivery System, and Gasoline Direct-Injection Fuel Injectors

2. Port- and Direct-Injection Systems, Mode of Operation, Piston Top Designs, and Engine Start System

3. Gasoline Direct-Injection Issues and GDI Service

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**OBJECTIVES:**

1. Explain how a gasoline direct-injection system works.

2. Describe the differences between port fuel-injection and gasoline direct-injection systems.

3. List the various modes of operation of a gasoline direct-injection system.

4. Discuss how to troubleshoot a gasoline direct-injection system.

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

1. Task Sheet: Gasoline Direct Injection Identification

2. Chapter PowerPoint

3. [Crossword and Word Search Puzzles (A8)](https://jameshalderman.com/a8_puzzles_lib_page/)

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

5. [Animations: (A8) Engine Performance](https://jameshalderman.com/a8_anim_lib_page/) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ACTIVITIES:**

1. Task Sheet: Gasoline Direct Injection 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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