**Advanced Engine Performance Diagnosis 8th Edition**

**Chapter 22 – Fuel-Injection Components and Operation**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Types of Fuel Injection, Fuel-Pressure Regulator, Fuel Injectors, and Fuel Injection Modes of Operation

2. Idle Control

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**OBJECTIVES:**

1. Describe how electronic fuel injection works.

2. Describe types of fuel injection.

3. Explain the different methods used to regulate fuel pressure.

4. Discuss fuel injectors.

5. Discuss fuel-injection modes of operation.

6. Describe idle control systems.

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

1. Task Sheet: Modes of Fuel Injection Operation

2. Task Sheet: Idle Air Control

3. Task Sheet: Air Intake Inspection

4. Chapter PowerPoint

5. Crossword and Word Search Puzzles

6. Videos: (A8) Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair

7. Animations: (A8) Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair

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**ACTIVITIES:**

1. Task Sheet: Fuel Pump Testing

2. Task Sheet: Fuel Pump Current Draw Test

3. Task Sheet: Fuel Pump Volume

4. Task Sheet: Fuel Pump Current Ramping

5. Task Sheet: Clamp-On Meter Fuel Pump Current Draw Test

6. Task Sheet: Fuel Filter Replacement

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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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