

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:
