

Advanced Engine Performance Diagnosis 7th Edition

Chapter 26 – Vehicle Emissions Standards and Testing

Lesson Plan



CHAPTER SUMMARY:

1. Normal Engine Combustion, Exhaust Analysis and Combustion Efficiency and Catalytic Converter
 2. Exhaust Analysis As A Diagnostic Tool, Engine Fault Possibilities, and Emission Standards
 3. European Standards and Vehicle Emission Testing
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OBJECTIVES:

1. Identify the reasons why excessive amounts of HC, CO, and NO_x exhaust emissions are created.
 2. Diagnose driveability and emissions problems resulting from malfunctions of interrelated systems.
 3. Discuss emissions standards.
 4. Describe how to test for various emissions products.
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RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Vehicle Emission Rating
 2. Task Sheet: Exhaust Gas Analysis
 3. Task Sheet: Diagnosis of Emission-Related Concerns
 4. Chapter PowerPoint
 5. [Crossword and Word Search Puzzles \(A8\)](#)
 6. [Videos: \(A8\) Engine Performance](#)
 7. [Animations: \(A8\) Engine Performance](#)
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ACTIVITIES:

1. Task Sheet: Vehicle Emission Rating
 2. Task Sheet: Exhaust Gas Analysis
 3. Task Sheet: Diagnosis of Emission-Related Concerns
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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
