

# Advanced Engine Performance Diagnosis 8<sup>th</sup> Edition

## Chapter 21 – Fuel Pumps, Lines, and Filters

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Fuel Delivery System, Fuel Lines, Electric Fuel Pumps, Fuel Filters, and Fuel-Pump Testing
  2. Fuel-Pump Replacement
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#### **OBJECTIVES:**

1. Discuss the fuel delivery system, including fuel tanks and rollover leak protection.
  2. Discuss the different types of fuel lines.
  3. Explain the different types of electric fuel pumps.
  4. Describe fuel filters.
  5. Describe how to test fuel pumps.
  6. Describe how to replace fuel pumps.
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#### **RESOURCES:** (All resources may be found at [jameshalderman.com](http://jameshalderman.com))

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
  7. Chapter PowerPoint
  8. Crossword and Word Search Puzzles
  9. Videos: (A8) Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair
  10. 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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