

# Automotive Technology 6<sup>th</sup> Edition

## Chapter 87

### Positive Crankcase Ventilation and Secondary Air-Injection Systems

#### Lesson Plan

##### **CHAPTER SUMMARY:**



1. Crankcase ventilation and PCV system diagnosis
  2. PCV-related DTCs and secondary air-injection systems
  3. Secondary air-injection system diagnosis and SAI-related DTCs
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##### **OBJECTIVES:**



1. Describe the purpose and function of the positive crankcase ventilation (PCV) system.
  2. Explain the purpose and function of the secondary air-injection (SAI) system and how to diagnose faults in the system.
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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.



1. Task Sheet ASE (A8-E-1) P-3, (A8-E-2) P-2: PCV System Inspection
  2. Task Sheet ASE (A8-E-1) P-3: PCV System Diagnosis
  3. Task Sheet ASE (A8-E-4) P-2: Secondary Air Injection Diagnosis
  4. Task Sheet ASE (A8-E-4) P-2: AIR Pump Component Inspection
  5. Task Sheet ASE (A8-E-4) P-2: AIR Pump Electrical Component Inspection
  6. Chapter PowerPoint
  7. Chapter Crossword Puzzle and Word Search
  8. Videos: [\(A8\) Engine Performance Videos](#)
  9. Animations: [\(A8\) Engine Performance Animations](#)
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##### **ACTIVITIES:**



1. Task Sheet ASE (A8-E-1) P-3, (A8-E-2) P-2: Have students complete PCV System Inspection Task Sheet.
  2. Task Sheet ASE (A8-E-1) P-3: Have students complete PCV System Diagnosis Task Sheet.
  3. Task Sheet ASE (A8-E-4) P-2: Have students complete Secondary Air Injection Diagnosis Task Sheet.
  4. Task Sheet ASE (A8-E-4) P-2: Have students complete AIR Pump Component Inspection Task Sheet.
  5. Task Sheet ASE (A8-E-4) P-2: Have students complete AIR Pump Electrical Component Inspection Task Sheet.
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##### **ASSIGNMENTS:**



1. Chapter crossword and word search puzzles.
  2. Complete end of chapter 10 question quiz.
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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:

