**Automotive Technology 6th 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](https://jameshalderman.com/a8_vid_lib_page/)

9. Animations: [(A8) Engine Performance Animations](https://jameshalderman.com/a8_anim_lib_page/)

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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:**

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