Automotive Technology 6th Edition Chapter 94 – Hybrid Safety and Service Procedures Lesson Plan

CHAPTER SUMMARY:



- 1. High-voltage safety, high-voltage safety equipment, and safety interlock system
- 2. Loss of insulation test, electric shock potential, and de-power high-voltage systems
- 3. Collision and repair industry issues and moving and towing a hybrid
- 4. Removing the high-voltage batteries and routine service procedures

OBJECTIVES:

- 1. Correctly use appropriate personal protective equipment (PPE).
- 2. Discuss the safety interlock system and loss of insulation in a hybrid electric vehicle.
- 3. Safely de-power a hybrid electric vehicle.
- 4. Explain hazards while driving, moving, and hoisting a hybrid electric vehicle.
- 5. Perform routine vehicle service procedure on a hybrid electric vehicle and understand the HEV's unique service requirements.



RESOURCES: (All resources may be found at http://www.jameshalderman.com) Internet access required to hyperlink.

- 1. Task Sheet ASE (A6-B-7) P-2: Hybrid Vehicle HV Circuit Disconnect
- 2. Task Sheet ASE (A6-B-7) P-2: Identify HV of Hybrid Electric Vehicles
- 3. Task Sheet: High-Voltage Battery Chargers
- 4. Task Sheet ASE (A1-A-9) P-2: Hybrid Engine Service Precautions
- 5. Task Sheet ASE (A7-B-4) P-2: Hybrid A/C System Circuits
- 6. Chapter PowerPoint
- 7. Chapter Crossword Puzzle and Word Search
- 8. Videos: (L3) Light Duty Hybrid Electric Videos
- 9. Animations: (L3) Light Duty Hybrid Electric Animations



ACTIVITIES:

- 1. Task Sheet ASE (A6-B-7) P-2: Have students complete Hybrid Vehicle HV Circuit Disconnect Task Sheet.
- 2. Task Sheet ASE (A6-B-7) P-2: Have students complete Identify HV of Hybrid Electric Vehicles Task Sheet.
- 3. Task Sheet: Have students complete High-Voltage Battery Chargers Task Sheet.
- 4. Task Sheet ASE (A1-A-9) P-2: Have students complete Hybrid Engine Service Precautions Task Sheet.
- 5. Task Sheet ASE (A7-B-4) P-2: Have students complete Hybrid A/C System Circuits Task Sheet.



ASSIGNMENTS:

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



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:



