

Automotive Engines Theory and Servicing 10th Edition

Chapter 24 – Engine Cleaning and Crack Detection

Lesson Plan



CHAPTER SUMMARY:

1. Mechanical Cleaning, Chemical Cleaners, Spray and Steam Washing, and Thermal Cleaning
 2. Tank and Vapor Cleaning, Ultrasonic and Vibratory Cleaning, Crack Detection, and Crack Repair
-



OBJECTIVES:

1. Explain the mechanical cleaning procedure of engines.
 2. Discuss chemical cleaners.
 3. Compare spray and steam washing, thermal cleaning, tank and vapor cleaning, and ultrasonic and vibratory cleaning.
 4. Explain crack detection and crack repair.
-



RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Crack Detection and Cylinder Head Warpage
 2. Task Sheet: Engine Block Crack Detection and Warpage
 3. Chapter PowerPoint
 4. [Crossword Puzzle and Word Search \(A1\)](#)
 5. [Videos: \(A1\) Engine Repair](#)
 6. [Animations: \(A1\) Engine Repair](#)
-



ACTIVITIES:

1. Task Sheet: Crack Detection and Cylinder Head Warpage
 2. Task Sheet: Engine Block Crack Detection and Warpage
-



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.
-



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](#).
-



NOTES AND EVALUATION:
