

# Automotive Technology 7<sup>th</sup> Edition

## Chapter 26 – 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. Describe spray and steam washing.
4. Describe thermal cleaning.
5. Describe tank and vapor cleaning.
6. Describe ultrasonic and vibratory cleaning.
7. Explain crack detection.
8. Explain crack repair.



#### **RESOURCES:** (All resources may be found at 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
5. Videos: [\(A1\) Engine Repair Videos](#)
6. Animations: [\(A1\) Engine Repair Animations](#)



#### **ACTIVITIES:**

1. Task Sheet: Crack Detection and Cylinder Head Warpage
2. Task Sheet: Engine Block Crack Detection and Warpage
3. Crossword Puzzle and Word Search



#### **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:**