# Automotive Engines Theory and Servicing 10<sup>th</sup> Edition Chapter 29 – Pistons, Rings, and Connecting Rods Lesson Plan

#### **CHAPTER SUMMARY:**



- 1. Pistons, Piston Construction, Piston Pins, Piston Pin Retaining Methods, and Piston Rings
- 2. Piston Ring Construction, Connecting Rods, Connecting Rod Service, and Piston and Rod Assembly
- 3. Piston Ring Service

## **OBJECTIVES**:



- 1. Explain the purpose and function of pistons and piston construction.
- 2. Discuss piston pins and piston pin retaining methods.
- 3. Explain piston rings and construction of piston rings.
- 4. Discuss connecting rods and connecting rod service.
- 5. Explain piston and rod assembly and piston ring service.

## **RESOURCES:** (All resources may be found at jameshalderman.com)



- Task Sheet: Piston and Bearing Wear Patterns
- 2. Task Sheet: Piston Inspection and Measurement
- 3. Task Sheet: Piston to Bore Clearance
- 4. Chapter PowerPoint
- 5. Crossword Puzzle and Word Search (A1)
- 6. Videos: (A1) Engine Repair
- 7. Animations: (A1) Engine Repair

## **ACTIVITIES:**



- 1. Task Sheet: Piston and Bearing Wear Patterns
- 2. Task Sheet: Piston Inspection and Measurement
- 3. Task Sheet: Piston to Bore Clearance

### **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 <u>Frequently Asked Questions</u> and <u>Tech Tips</u> sections.
- 2. Review and group discussion of the five (5) chapter Review Questions.

## **NOTES AND EVALUATION:**



