**Automotive Engines Theory and Servicing 10th 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

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**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.

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

1. 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)](https://jameshalderman.com/a1_puzzles_lib_page/)

6. [Videos: (A1) Engine Repair](https://jameshalderman.com/video-library/)

7. [Animations: (A1) Engine Repair](https://jameshalderman.com/a1_anim_lib_page/)

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**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.

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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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