

# Automotive Engines Theory and Servicing 10<sup>th</sup> Edition

## Chapter 33 – Balancing and Blueprinting

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Balancing an Engine, Blueprinting Process, Combustion Chamber Volume and Flow Testing Cylinder Heads
  2. Degreeing the Camshaft, Determining Proper Pushrod Length, and Short Block Blueprinting
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#### **OBJECTIVES:**

1. Explain the purpose of balancing an engine.
  2. Describe the blueprinting process.
  3. Discuss the importance of combustion chamber volume.
  4. Discuss the purpose of flow testing cylinder heads.
  5. Discuss the purpose of degreeing the camshaft.
  6. Explain the procedure of determining proper push rod length.
  7. Discuss short block blueprinting.
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#### **RESOURCES:** ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Assemble Engine Block
  2. Chapter PowerPoint
  3. [Crossword Puzzle and Word Search \(A1\)](#)
  4. [Videos: \(A1\) Engine Repair](#)
  5. [Animations: \(A1\) Engine Repair](#)
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#### **ACTIVITIES:**

1. Task Sheet: Assemble Engine Block
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#### **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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