## Automotive Engines 10th

## **Chapter 33 Balancing and Blueprinting**

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1. What parts are considered to be "rotating" weight?
2. What questions should be answered before starting the blueprint process?
3. What parts must be measured when measuring reciprocating weight?
4. List the steps need to degree a camshaft.
5. What is done to the crankshaft to achieve a balanced rotating engine assembly?
6. What are the parts and supplies needed to check combustion chamber volume?

Answer Key

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1. Rotating weight includes the crankshaft, vibration damper, flywheel, pressure plate, big end of the connecting rod plus all bolts, and nuts needed to assembly the parts listed.

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2. The questions that should be answered include:

What is the general use of the vehicle?

Will a power adder be used?

What type of fuel will be used?

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3. Reciprocating weight includes the pistons, rings, wrist pins, and the small end of the connecting rods.

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- 4. The steps needed to degree a camshaft include:
  - 1. Determine the exact TDC.
  - 2. Determine the center of the intake camshaft lobe.
  - 3. Compare the intake centerline with camshaft specifications.

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5. Weight is usually removed from the counterweight to achieve a balanced crankshaft.

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- 6. The parts and supplies needed to check combustion chamber volume include:
  - 1. Graduated burette tube.
  - 2. Mineral spirits or ATF.
  - 3. Clear plastic plate to fit over combustion chamber area

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