

Unit 4 – Engines and Thermodynamics

You should be able to test on the following topics.

1. You should be able to define correctly in your own words:
 - a. Engine
 - b. The 4 laws of thermodynamics (1st law, 2nd law ...)
 - c. Conservation of Energy
 - d. Work
 - e. Causes of Heat
 - f. Ideal Gas Law
2. What is an external combustion engine? Give examples.
3. What is an internal combustion engine? Give examples.
4. What are the 4 cycles of an internal combustion gas engine?
5. Identify and Explain
 - a. Piston
 - b. Crankshaft and counter balance weights
 - c. Camshaft
 - d. Valves / Lifters / intake and exhaust
 - e. Timing Gears
 - f. Flywheel / Ignition timing
 - g. Carburetor
6. Terms to know
 - a. Compression
 - b. Cubic Displacement
 - c. Bore and Stroke
 - d. Top Dead Center
 - e. OHV
 - f. OHC
 - g. Fuel Injection