



INTERNAL COMBUSTION ENGINE (ICE)

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Lecturer,

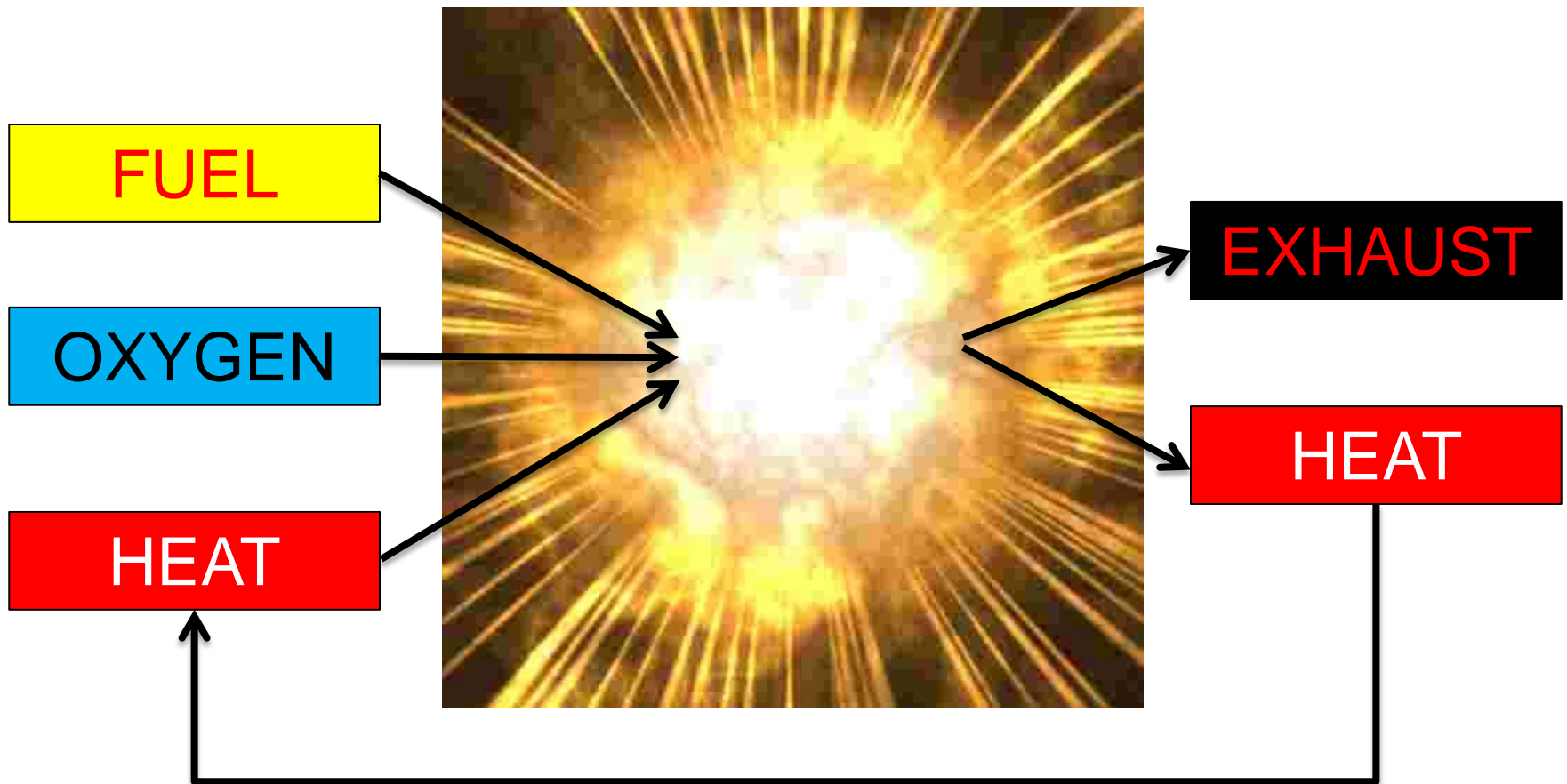
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<http://teacher.buet.ac.bd/aashiquear>



Internal Combustion Engine

What does *Combustion* signifies?





Internal Combustion Engine

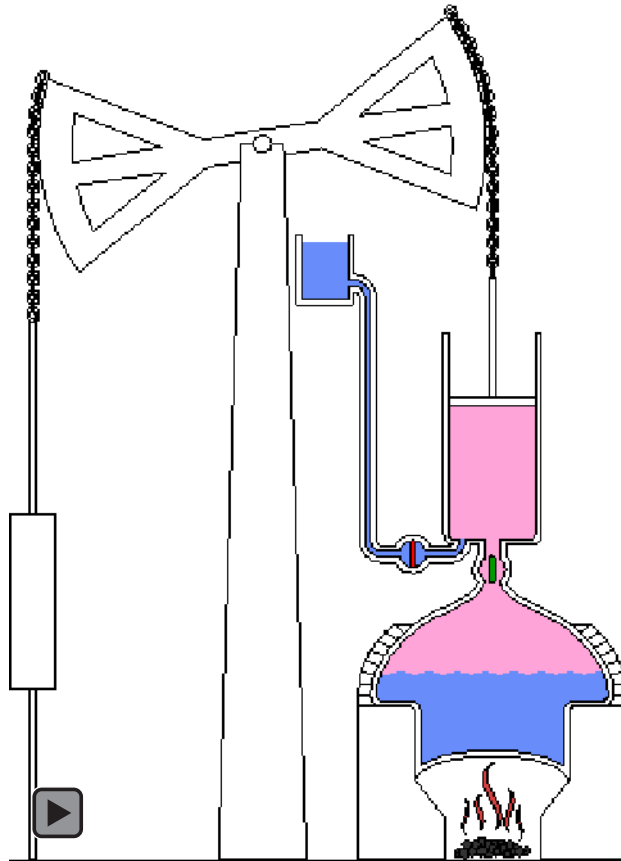
Internal Combustion Engine





Internal Combustion Engine

External Combustion Engine





Applications of ICE

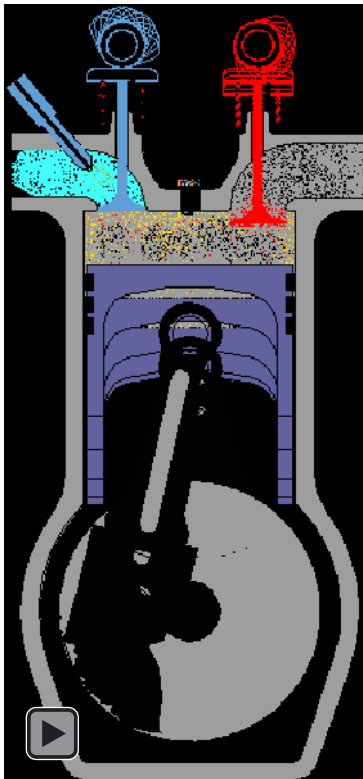
- Automobiles
- Trucks
- Locomotive
- Aircraft
- Marine
- Power Generation



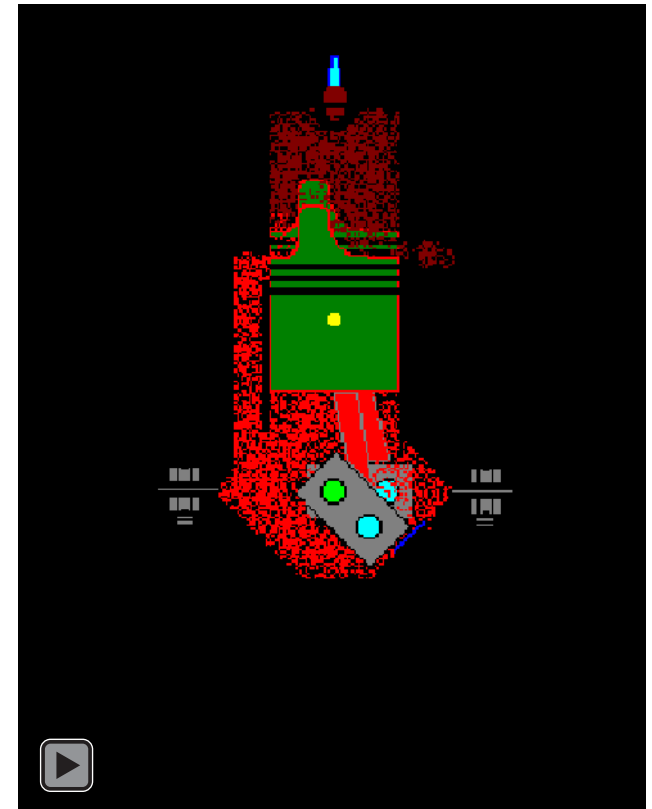


Classifications

Four Stroke Engine



Two Stroke Engine



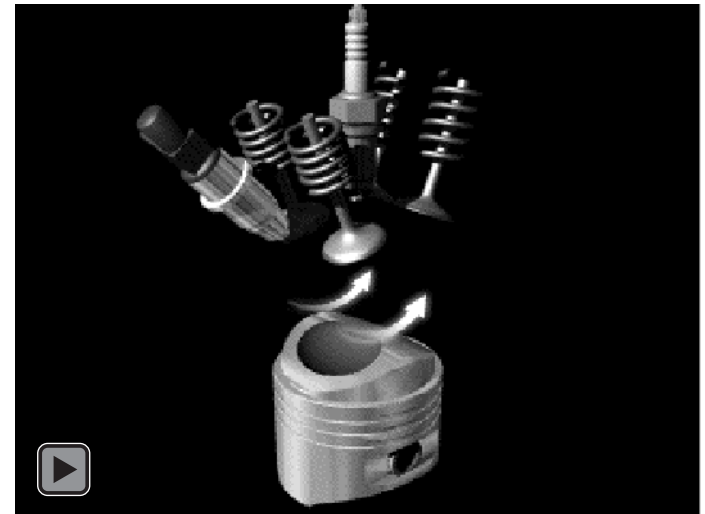


Classifications (contd.)

Spark Ignition Engine

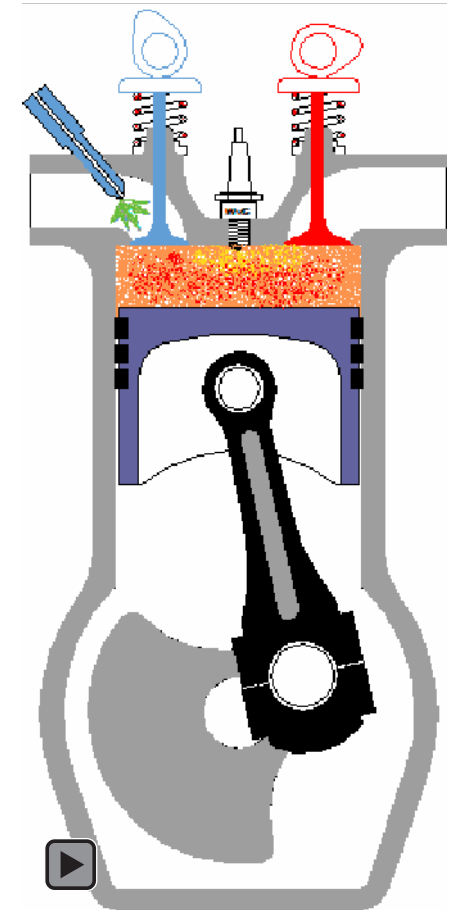
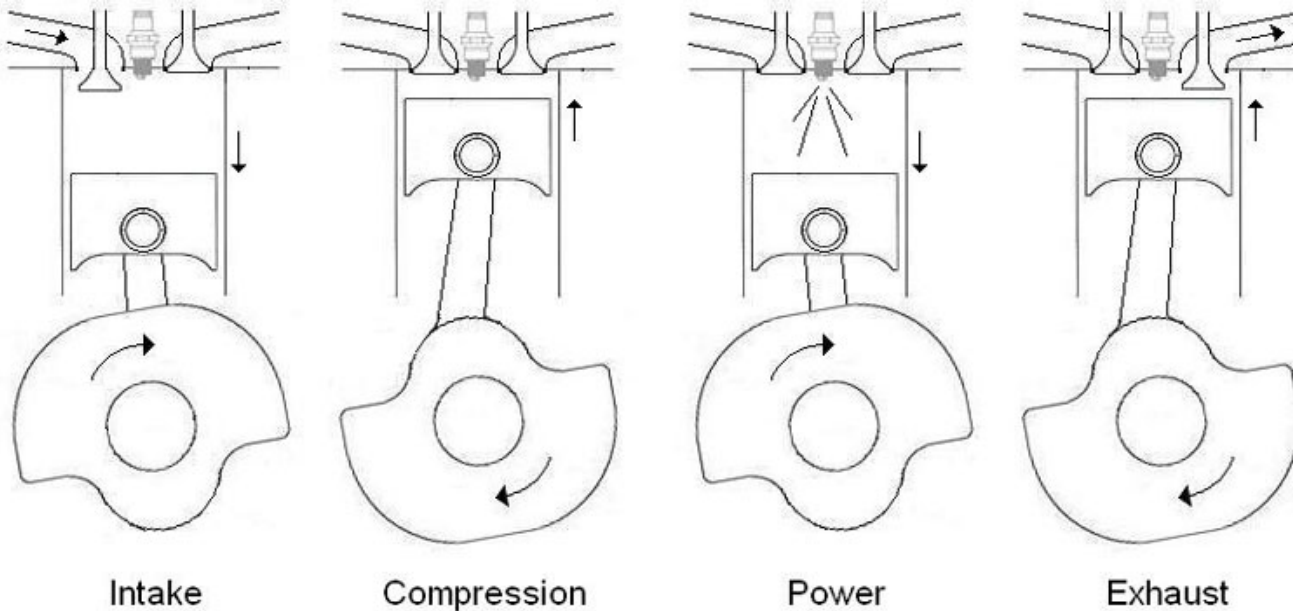


Compression Ignition Engine





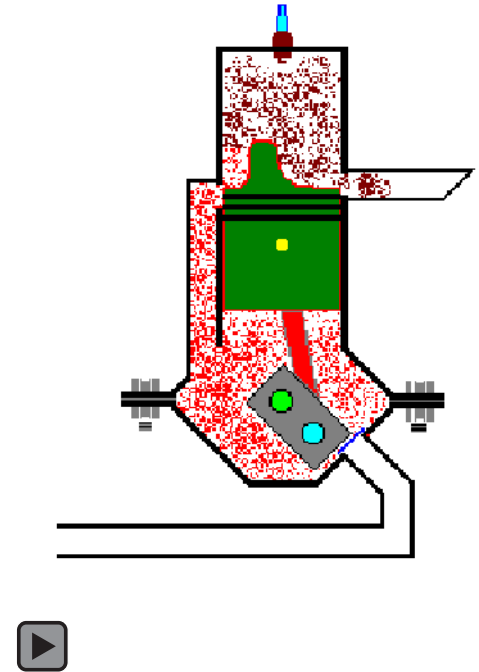
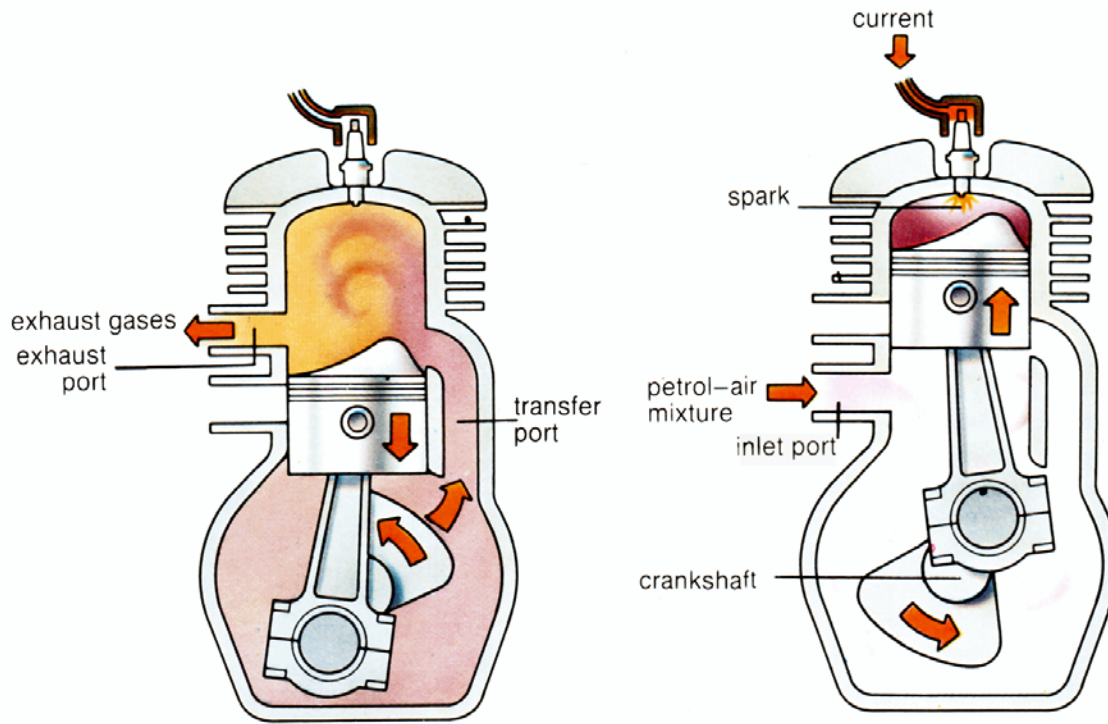
Four Stroke SI Engine



1. Intake Stroke
2. Compression Stroke
3. Power Stroke
4. Exhaust Stroke



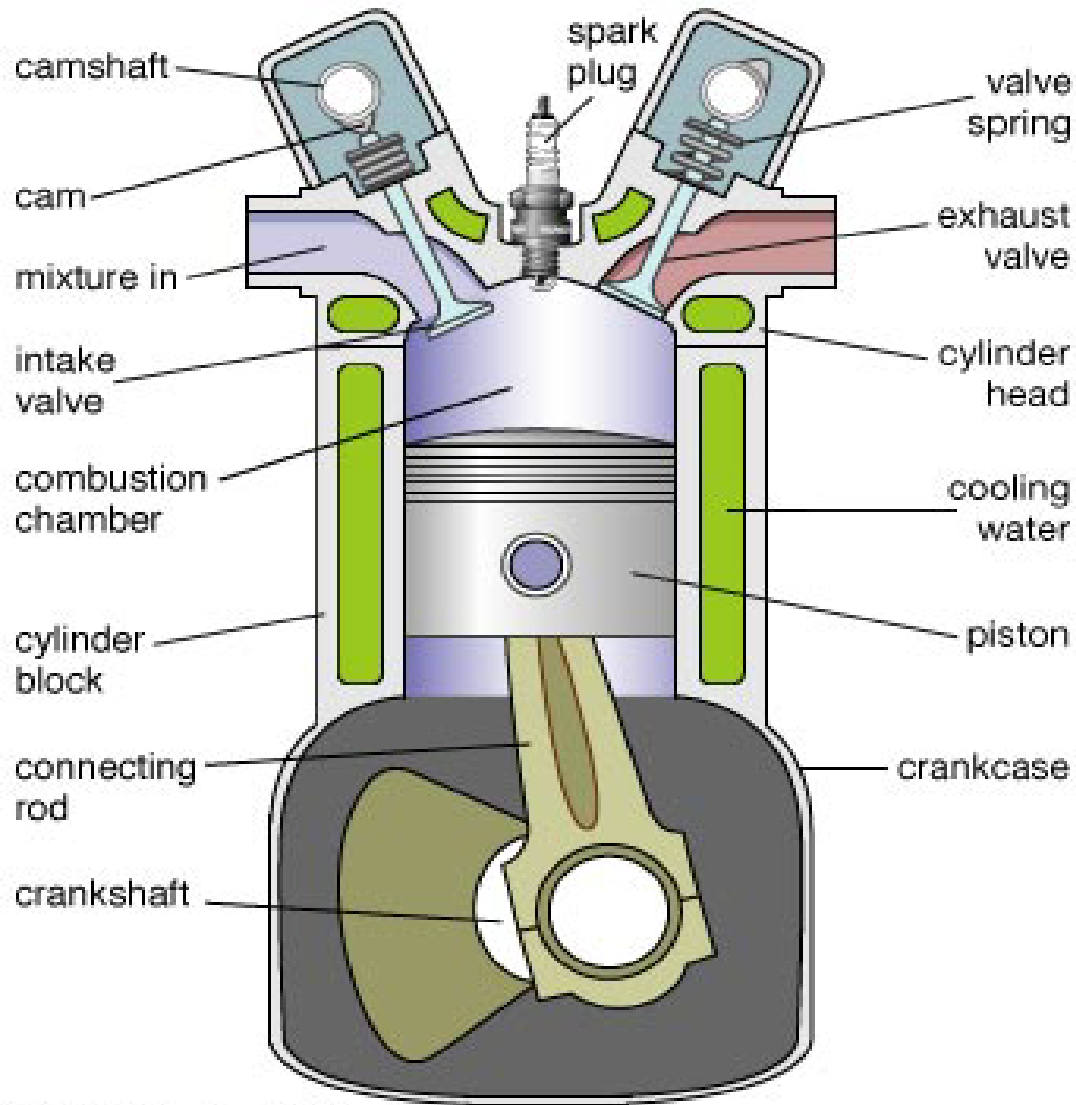
Two Stroke SI Engine



1. Compression Stroke
2. Power Stroke

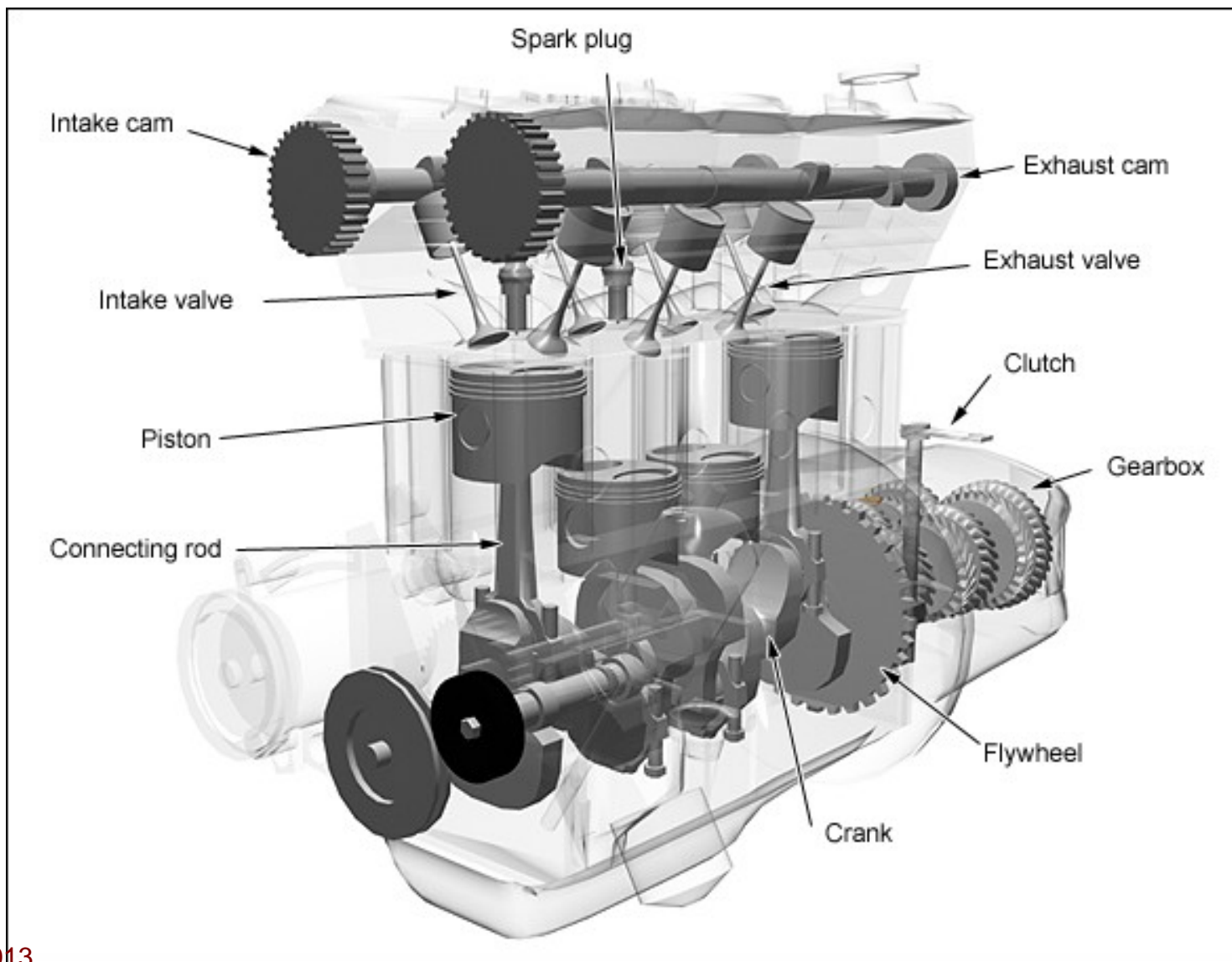


Basic Engine Component





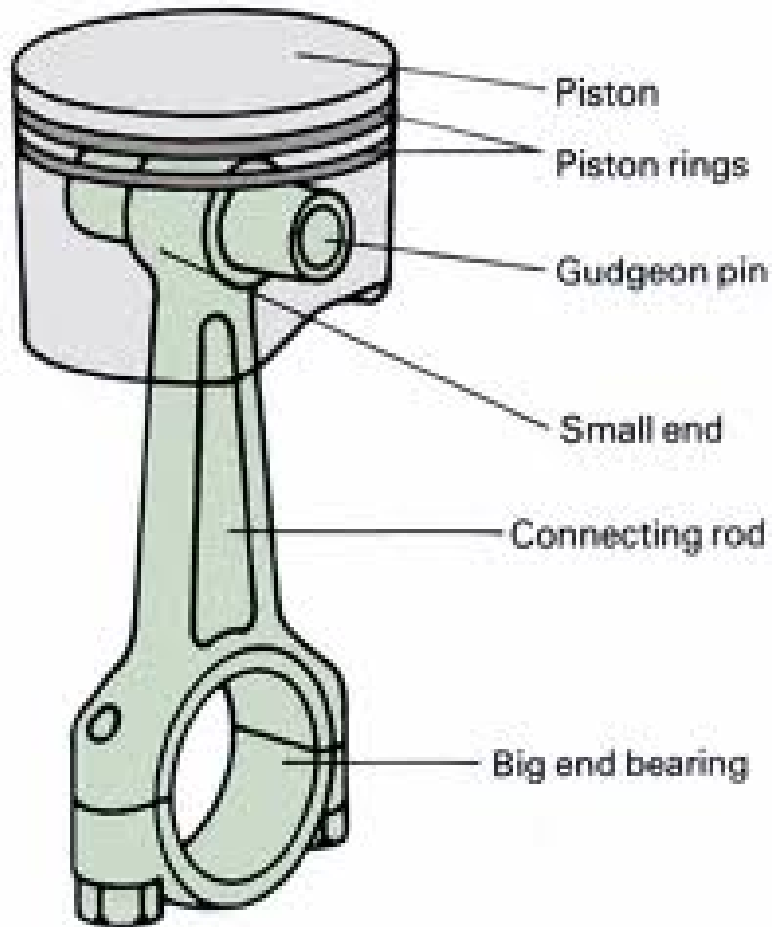
Basic Engine Component (contd.)





Basic Engine Component (contd.)

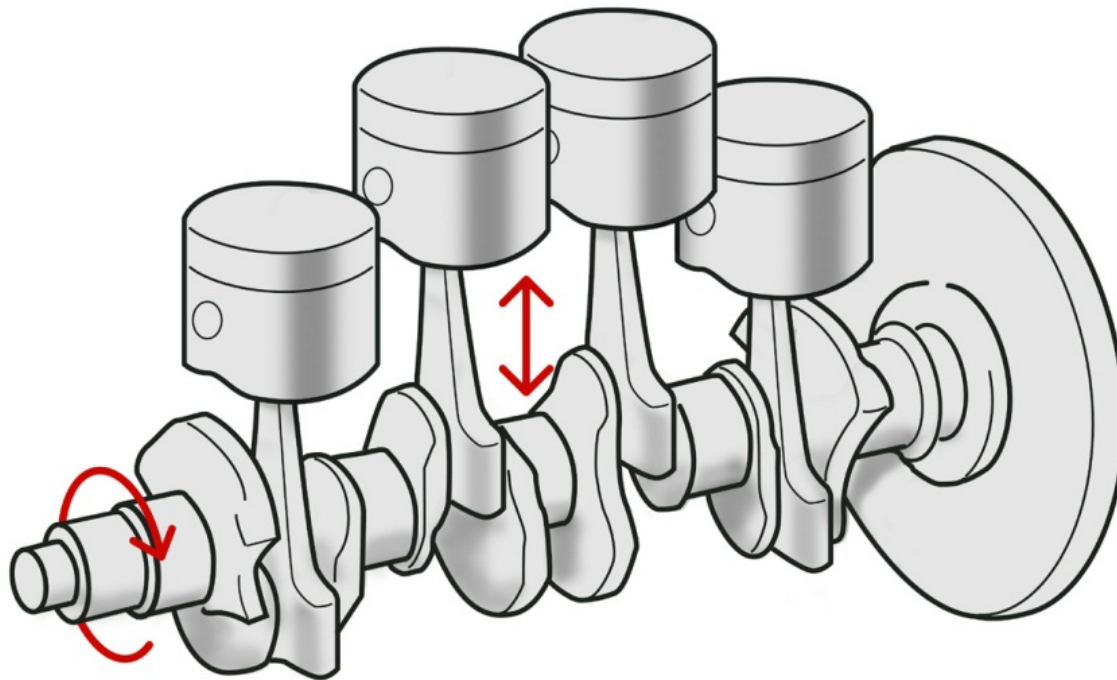
Piston and Connecting Rod





Basic Engine Component (contd.)

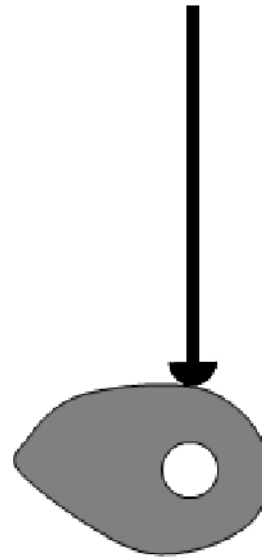
Crankshaft





Basic Engine Component (contd.)

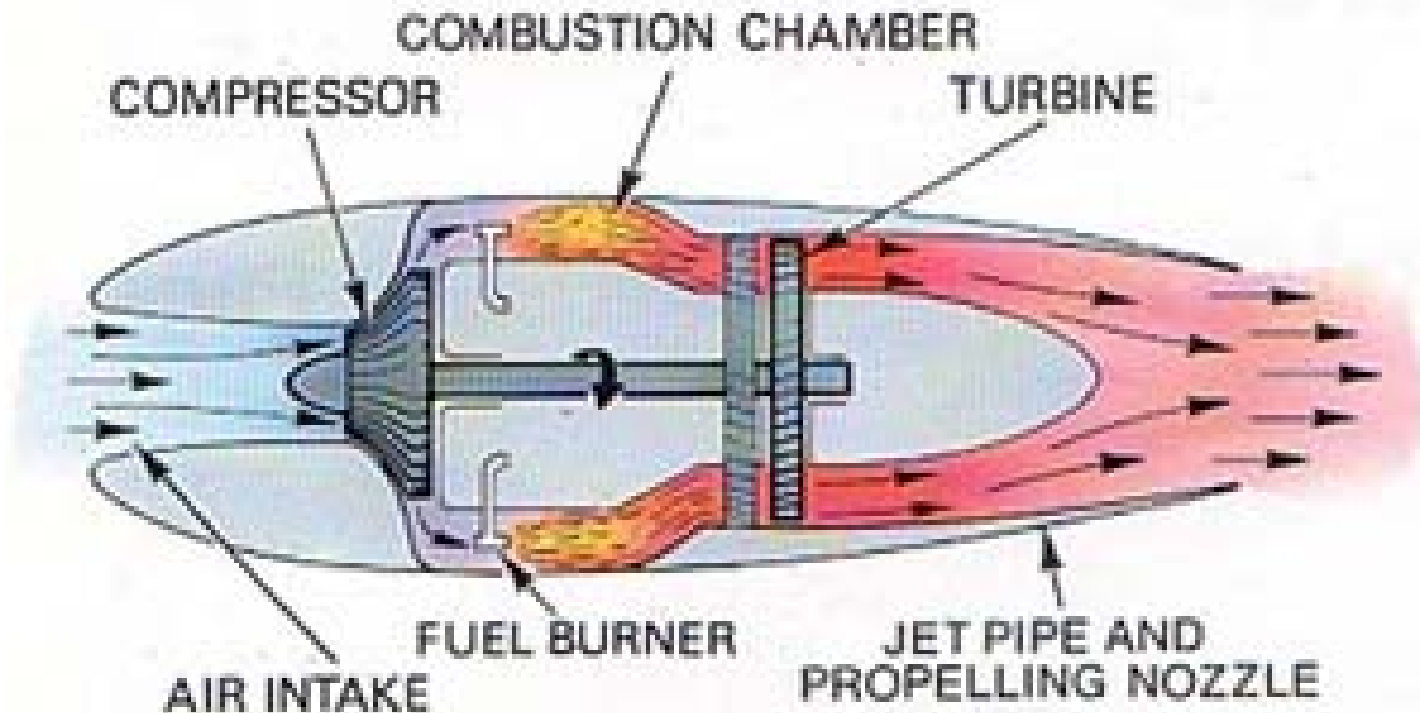
Cam, Rocker Arm & Valve





Other Type of ICEs

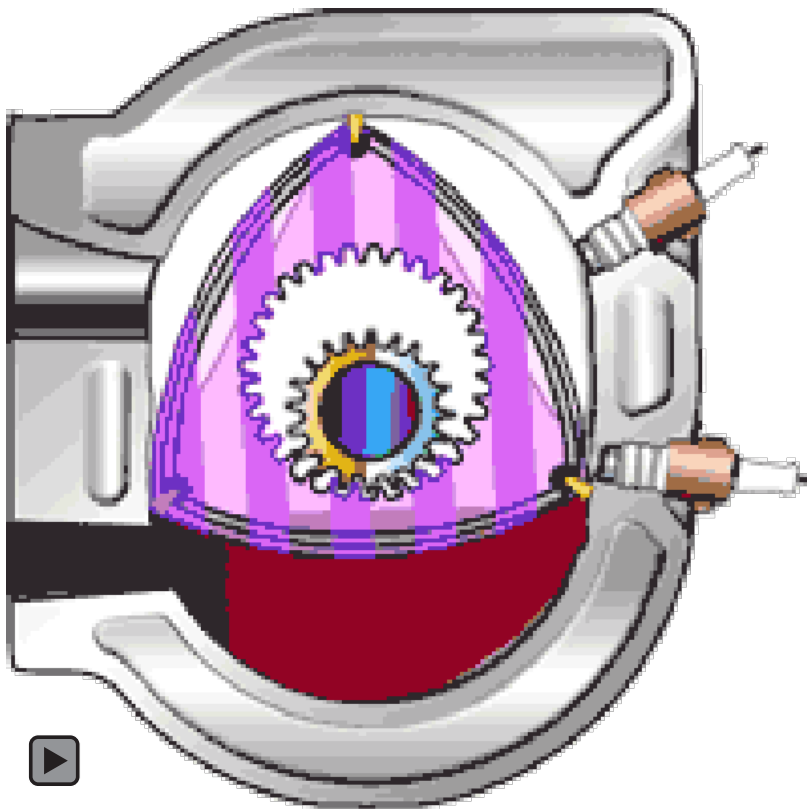
Gas Turbine





Other Type of ICEs

Rotary Engine (Wankel Engine)





Resources

Websites:

<http://www.animatedengines.com/>

The screenshot shows the homepage of the website "Animated Engines". At the top, there is a dark blue header with a red and green wrench icon on the left and the text "Animated Engines" in white. Below the header is a light green bar with the word "Home" in black. The main content area has a white background and begins with the text "Welcome!" in blue, followed by the instruction "Click an engine to see how it works." in black. There are six engine diagrams arranged in two rows of three. Each diagram is accompanied by a label in blue text: "Four stroke", "Diesel", "Two stroke", "Atkinson", and another unlabeled diagram. The diagrams are colorful and show the internal components of various engine types.



THANK YOU