Introduction to engines

The four-stroke small engine that powers your lawn mower, tiller, generator and many other types of equipment is a gasoline engine that generates the precise amount of power necessary to get the job done. Here's how the components in your engine interact.

Engine components & their function

The rewind cord is pulled to start the combustion process. On some models, a starter motor replaces the rewind, drawing on battery power to start the engine.

Revolving ***magnets*** work in conjunction with the ***ignition armature*** and ***spark plug*** to produce a spark in the ***combustion chamber.***

The ***carburetor*** draws in fuel from the fuel tank and outside air to form a combustible vapor that is fed into the combustion chamber.

Intake and exhaust valves open and close at precisely timed intervals to let air and fuel enter the engine and to let spent gases exit.

The ***piston*** is pushed through the ***cylinder*** by the force of expanding gases. The piston's motion causes the ***crankshaft*** to turn. Momentum then carries the piston back toward the top of the cylinder.

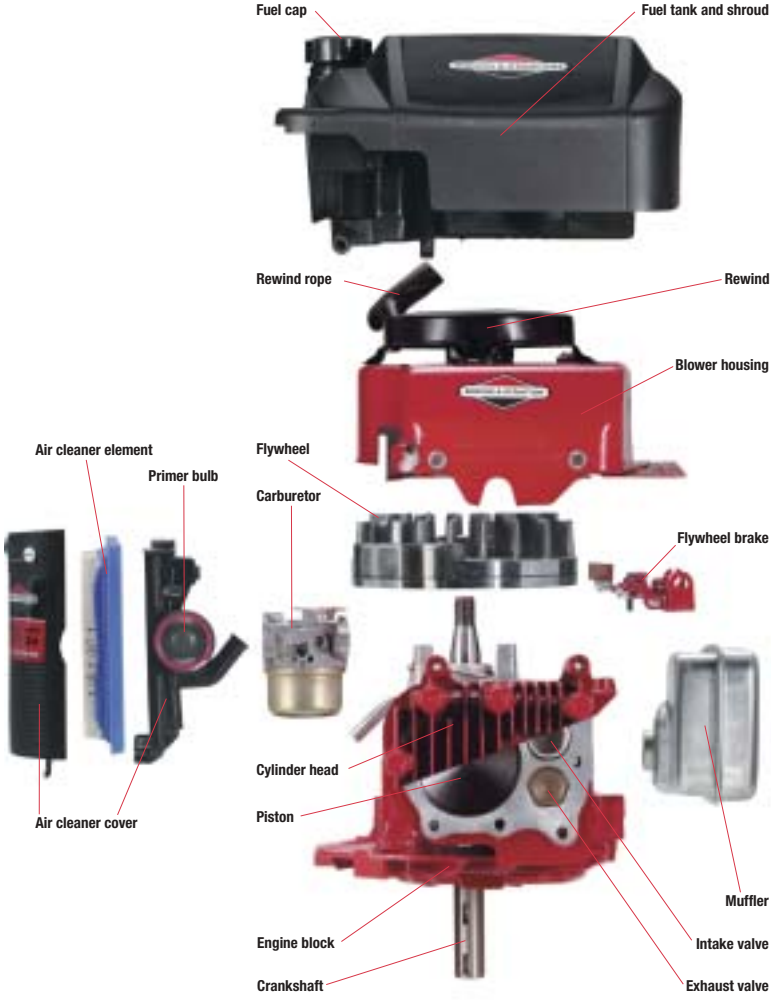
Oil stored in the ***crankcase*** circulates through the engine to lubricate key components like the piston and crankshaft and to provide generalized cooling by drawing away heat from internal engine surfaces.

A ***flywheel brake*** and ***stop switch*** are included on engines for equipment such as mowers that require constant supervision. The two components are designed to stop the engine if you release the controls.

An ***air vane*** or ***flyweights*** monitor engine RPMs so the governor can maintain the selected engine speed.

Cooling fins help reduce engine temperatures when air circulates across the hottest engine surfaces.

Parts of the small engine – front view



Parts of the small engine – side view