

Title (en)

A reciprocating internal combination engine including a separate gas chamber.

Title (de)

Hubkolbenverbrennungsmotor mit einem getrennten Gasraum.

Title (fr)

Moteur à combustion interne à mouvement alternatif comprenant une chambre à gaz séparée.

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Application

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Priority

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Abstract (en)

This invention relates to a fluid pump driven by either a two cycle internal combustion engine or a four cycle internal combustion engine. In the fluid pump and two cycle internal combustion engine combination the combination comprises a block including an upper cylinder portion having a first diameter, and including a lower cylinder portion having a second diameter, the second diameter being larger than the first diameter, a bi-diameter piston including an upper piston portion received in said upper cylinder portion, and including a lower piston portion received in said lower cylinder portion, a crankcase connected to said block adjacent to said lower cylinder portion, said crankcase, said lower cylinder portion, and said lower piston portion defining a crankcase chamber, an upper engine chamber defined by said upper cylinder portion and said upper piston portion, an ignition means for igniting gas/air mixture in said upper engine chamber, one-way gas/air inlet means for admitting a gas/air mixture into said crankcase chamber, piston outlet means, located in said upper piston portion, for permitting the gas/air mixture in said crankcase chamber to exit from said crankcase chamber, gas/air mixture channel means for receiving gas/air mixture through said piston outlet means from said crankcase chamber and for channeling the gas/air mixture to said upper engine chamber, channel port means for permitting gas/air mixture from said channel means to enter said upper engine chamber, exhaust port means for exhausting combusted gas/air mixture from said upper engine chamber, a ring-like pumping chamber defined by said bi-diameter piston and said block, said pumping chamber being circumferential with respect to said upper piston portion, one-way inlet means joined to said lower cylinder portion for admitting fluid to be pumped into said pumping chamber, one-way outlet means joined to said lower cylinder portion for discharging pumped fluid from said pumping chamber.

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