

Title (en)
ROTARY PISTON ENGINE

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Application
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Priority
DE 2851346 A 19781128

Abstract (en)
[origin: US4354462A] The internal combustion engine of the invention has a stationary cylindrical casing with inlet and outlet openings for fuel and air supply and for exhausting. Between two cover plates, a ring structure and a rotor enclosed thereby are arranged for rotation about different but parallel and stationary axes. The ring structure comprises a number of arcuate members between which an equal number of swinging fulcrum slides are held. Vanes extending through the fulcrum slides define an inner group of chambers between the ring structure and the rotor to whose periphery the vanes are joined by swivel bearings, and an outer group of chambers between the ring structure and the casing wall. A flow connection is provided from the outer group serving as charging and boosting chambers to the inner group in which compression, ignition and exhaustion take place. As the axes of rotation are displaced but both groups of chambers are maintained in synchronous rotation by means of a special gear, the vanes perform phase-variable, accelerated and decelerated motions; the volume of all the chambers varies accordingly. Every single chamber completes a full cycle during each revolution, and thus the engine performs a number of full cycles per revolution depending on the number of chambers in the inner and outer group.

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