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The invention relates to the mechanical engineering, namely to the motor and compressor design.
The rotary-blade internal combustion engine comprises a case with cooling jacket, two covers, rigidly fixed on the case wherein there are made suction and exhaust ports, and a rotor placed into the case. Novelty consists in that the engine additionally comprises a cylinder, placed into the case coaxially to it with the possibility of rotation and wherein there is made a through hole in the form of polyhedron with the number of sides equal to the number of combustion chambers, on the lateral sides of the cylinder there are installed sealing elements, and into its walls there are made radial holes for oil discharge. Into each cover it is made a groove, wherein it is installed a bush, the inner part of which is made in the form of polyhedron with the number of sides equal to the number of combustion chambers, and a hole, with shifting about the axis of the cylinder, wherein the axle of the rotor is installed. On the rotor there are made lateral and longitudinal slots, wherein there are correspondingly installed the sealing elements and blades, consisting of an inner part and outer parts, at the same time in the inner part of the blades there are installed counterweights with levers, one end of which is rigidly fixed to the inner parts and the second is rigidly fixed to the outer parts, onto which there are made protrusions, and into the axle of the rotor there are made a longitudinal channel and radial channels for oil supply, which are also made inside the blades.
According to the second variant, the rotary-blade internal combustion engine is characterized in that the radial channels for oil supply are absent and the oil is supplied together with the fuel.
The result consists in the considerable reduction of the specific fuel consumption up to 50...70 g/kW·hour and in reducing 3...4 times the environmental pollution with exhaust gases. The outer mixed heat input is carried out by fuel heating by the heat of the exhaust gases, at the same time the simple sealing elements permit to increase the life of the rotary-blade engine in comparison with the piston internal combustion engines. The simplification of the rotary-blade engine design permits to reduce 5...7 times the weight of the engine and to reduce 2...3 times the cost price.

Claims: 2
Fig.: 5