

Environmentally Friendly Power Plants Based on Rotary Type Internal Combustion Engine

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Abstract: Two well-known designs of rotary piston engines and a directly promising design of a rotary engine with an improved separating blade developed by Professor Yu. V. Vorobyov are considered. It has been found that in the created design of a rotary engine there is no connecting rod and piston group, instead of which a rotor is made that performs a circular motion, and then, using an eccentric mechanism, this motion is converted into a rotational motion of the output shaft. It was found that the proposed technical solution will reduce the leakage of gases from the working chambers of the engine, increase the tightness of isolated chambers or cylinders, which will ultimately lead to an increase in power and an increase in engine efficiency by 10 - 15 % and a decrease in toxic emissions by up to 12 %.
