ELECTRICAL GENERATOR OF INTERNAL COMBUSTION

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Abstract: The mathematical simulation of operation of an electrical generator of internal combustion with free piston and cylinder in linear version has been conducted. Such a generator represents an ideally balanced heat machine with driving parts. The operation features of such a system have been analyzed. It has been shown that the conversion efficiency of chemical energy to the electrical one at combustion of methane–air mixture reaches 50% in a nonoptimized variant. The operation of experimental pneumonic model of an electrical generator executed in the compact rotor variant has been demonstrated.

Keywords: internal combustion engine (ICE); electric generator; free piston; hybrid engines

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