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**NEW CONCEPTION OF THE ROTARY INTERNAL COMBUSTION ENGINE
SUMMARY**

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In this paper is presented the new conception of a rotary IC engine which is developed the last years at the Faculty of mechanical engineering in Kragujevac. Such engine has more preferences related to the classical reciprocating and Wankel engines: simpler construction, better kinematic and dynamic characteristics, greater specific power and less mass.

In the paper is given his principle of the work, the kinematic, dynamic and working process calculations. The results of such mathematical modeling and computer simulation confirm the good performances of this rotary IC engine conception.

Key words: rotary engine, rotary piston, differential, intake and exhaust port.

NOVI KONCEPT ROTACIONOG MOTORA SA UNUTRAŠNJIIM SAGOREVANJEM

U ovom radu je prikazan novi koncept rotacionog motora sus koji je zadnjih godina razvijen na Mašinskom fakultetu u Kragujevcu. Takav motor ima više prednosti u odnosu na klasičan klipni i Vankelov motor: jednostavniju konstrukciju, bolje kinematičke i dinamičke karakteristike, veću litarsku snagu i manju masu.

U radu je dat princip njegovog rada, kinematički, dinamički i proračun radnog procesa. Rezultati takvog matematičkog modeliranja i kompjuterske simulacije potvrđuju dobre performanse ovakve koncepcije rotacionog motora.

Gljučne reči: rotacioni motor, obrtni klip, diferencijal, usisni i izduvni kanal.