

THE THEORETYCAL CONTRIBUTION MODELLING GASOLINE INJECTION AT ENGINES WITH SPARK LIGHTING

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Abstract: *Abstract: the authors present the general aspects of theoretical modeling of gasoline injection, the principle modeling of some of the elements of gasoline injection, namely the gasoline pump model and the pressure regulator model. It is presented the general model of a spark engine with gasoline injection. The modeling of the motor cycles with spark engines and gasoline injection suggested by the authors is realized by executing a computer program for determining the variation of the three-dimensional and bi-dimensional parameters with the sub-programs: program for calculating the SIE (dependence according to n and λ at $t_0 = -35 \dots +45^\circ\text{C}$ and $p_0 = 1 \cdot 10^2 \text{ kPa}$); program for calculating the SIE (dependence according to n and t_0 at $\lambda = 1$ and $p_0 = 1 \cdot 10^2 \text{ kPa}$); program for calculating the SIE cycle with gasoline injection. It was realized a study for calculating the pressure from the admission gallery p_g and the admission pressure p_a .*

Key words: *pressure regulator, valve, pulverization, duration of injection*



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