FUEL INJECTION: MODELING OF THE HYDRODYNAMIC COMPORTMENT

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ABSTRACT

The motor with lighting by compression requires an alimentation rigorously measured in fuel, at the precise moment and during a very short time, being located at the end of compression in the cylinder. The main objective of this work is to develop a mathematical simulation of the injection (pump – piping - injector), while being based on the equation of the movement and the equation of the continuity, to arrive finally at differential equations that are solved by Range Kutta method. We developed a code of calculation in FORTRAN language; the results are presented under shapes of curves (pressure, flow and positions).

KEYWORDS: Injection, Injector, Mathematical Simulation, Diesels Motors