

Title (en)
INTERNAL COMBUSTION ENGINE WITH INJECTION QUANTITY CONTROL

Title (de)
BRENNKRAFTMASCHINE MIT EINSPRITZMENGENSTEUERUNG

Title (fr)
MOTEUR À COMBUSTION INTERNE À COMMANDE DE LA QUANTITÉ D'INJECTION

Publication
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Application
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Abstract (en)
[origin: WO2017075644A1] The invention relates to a dual-fuel internal combustion engine comprising at least one gas supply device for supplying a gaseous fuel to at least one combustion chamber, and at least one regulatable injector for injecting liquid fuel into the at least one combustion chamber, the at least one injector having a discharge opening for the liquid fuel, which can be closed by a needle (6), and a regulating device regulating an opening of the needle (6) in the ballistic region of the needle, in a pilot operating mode of the internal combustion engine, by means of an actuator control signal. An algorithm is provided in the regulating device, which receives at least the actuator control signal (Δt) as an input variable and calculates, by means of an injector model, the mass of liquid fuel discharged through the discharge opening of the injector, compares the mass calculated by means of the injector model with a desired set point value (Formula AA) of the mass of liquid fuel, and corrects the actuator control signal (Δt) according to the result of the comparison.

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