

Title (en)

METHOD FOR OPERATING A MULTI-CYLINDER INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUM BETREIBEN EINER MEHRZYLINDRIGEN BRENNKRAFTMASCHINE

Title (fr)

PROCEDE POUR FAIRE FONCTIONNER UN MOTEUR A COMBUSTION INTERNE MULTICYLINDRE

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Application

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Abstract (en)

[origin: WO0169066A1] The invention relates to a method for operating a multi-cylinder internal combustion engine (1), especially a direct injection internal combustion engine. According to the invention, fuel is injected into a combustion chamber (4) via a high-pressure injection valve (9) in a first operational mode during a compression phase and in a second operational mode during an induction phase. In addition, the engine is switched over between the operational modes, and the torques of the individual cylinders of the internal combustion engine are equated, whereby the cylinder equalization is effected in the first operational mode by means of a controller. In order to be able to effect the cylinder equalization in a simple, quick and effective manner and while using few calculations, the invention provides that the injection correction factors (r_{ik}) for correcting cylinder-specific torque errors ($M_{f_{ik}}$) in a number of operating points (k) are determined and stored, statistical flow rate errors (q_{stat}) and dynamic flow rate errors (q_{dyn}) of the high-pressure injection valve (9) are determined, and the quantity of fuel to be injected into the combustion chamber (4) is corrected for according to the determined flow rate errors (q_{stat} , q_{dyn}) of the high-pressure injection valve (9).

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