

Title (en)

FUEL/AIR SYSTEM FOR COMBUSTION ENGINES

Title (de)

KRAFTSTOFF/LUFT-SYSTEM FÜR VERBRENNUNGSMOTOREN

Title (fr)

SYSTÈME DE CARBURANT/D'AIR POUR MOTEURS À COMBUSTION INTERNE

Publication

EP 3380709 A1 20181003 (DE)

Application

EP 16805046 A 20161125

Priority

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- EP 2016078878 W 20161125

Abstract (en)

[origin: WO2017089581A1] The injection methods for diesel and DI Otto engines are currently exclusively based on a purely hydraulic jet atomisation, and in the DI Otto method there are the rudiments of an air-supported pre-chamber. In order to improve the atomisation quality, the system pressures are continuously increased, with the diesel injection occurring at over 2500 bar. This borders on mechanical and physical limits. The new solution consists of the supply of pressurised air or other gaseous substances into an air/gas groove (4), which is arranged in the nozzle body (1) or the apex (3) of the nozzle needle (2) directly at the combustion chamber-side end of the injection nozzle. The breaking up of the fuel molecules is effectively supported by the pressurised air, until it is possible to blow a continuous air flow through the nozzle holes (9). A pump unit formed by a fuel pump (20) and a pressurised air pump (21) is also associated with this solution.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2017089581A1

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