

Title (en)

Method for operating a combustion engine, in particular a motor vehicle

Title (de)

Verfahren zum Betreiben einer Brennkraftmaschine insbesondere eines Kraftfahrzeugs

Title (fr)

Procédé de fonctionnement d'un moteur à combustion interne, en particulier d'automobile

Publication

EP 1375882 B1 20050316 (DE)

Application

EP 03009204 A 20030423

Priority

DE 10228063 A 20020617

Abstract (en)

[origin: EP1375882A1] Fuel injected by injection valve into engine combustion chamber. The injection valve nozzle needle is displaced by piezoelectric actuator (A) applying voltage for needle displacement and fuel injection. A first voltage (U1) is applied to the actuator, without actuating any displacement of needle. After a given time period a second voltage (U2) is applied to the actor for displacement of the needle. The second voltage is so chosen that the difference between both voltages equals to that for needle displacement. Independent claims are included for injection controlling computer program, car IC engine and control appts. for i.c. engine operation.

IPC 1-7

F02D 41/20; H01L 41/04

IPC 8 full level

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CPC (source: EP)

F02D 41/2096 (2013.01)

Cited by

EP1681450A3; EP2039918A1

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DE FR GB IT

DOCDB simple family (publication)

EP 1375882 A1 20040102; **EP 1375882 B1 20050316**; **EP 1375882 B2 20081119**; DE 10228063 A1 20040108; DE 50300360 D1 20050421; JP 2004019666 A 20040122; JP 4264303 B2 20090513

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EP 03009204 A 20030423; DE 10228063 A 20020617; DE 50300360 T 20030423; JP 2003172402 A 20030617