

Title (en)

METHOD FOR OPERATING AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUM BETRIEB EINER BRENNKRAFTMASCHINE

Title (fr)

PROCEDE PERMETTANT DE FAIRE FONCTIONNER UN MOTEUR A COMBUSTION INTERNE

Publication

**EP 1537318 B1 20070926 (DE)**

Application

**EP 03793447 A 20030707**

Priority

- DE 0302254 W 20030707
- DE 10240493 A 20020903

Abstract (en)

[origin: WO2004022957A1] The invention relates to a method for operating an internal combustion engine (10) comprising at least one injection valve (30) to which a piezoelectric actuator (58) that is impinged upon by a triggering signal of a control device (34) of the internal combustion engine (10). Said actuator (58) causes the needle (44) of the injection valve (30) to be lifted according to the triggering signal in order for fuel to be injected. The triggering signal is modified in accordance with a triggering power that is received by the piezoelectric actuator (58) so as to increase the performance of the internal combustion engine (10). It is also possible to reduce the temperature of the control device (34).

IPC 8 full level

**F02D 41/20** (2006.01); **F02D 41/34** (2006.01); **F02M 45/02** (2006.01); **F02M 51/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

**F02D 41/2096** (2013.01); **F02M 51/0603** (2013.01); **F02M 57/005** (2013.01)

Designated contracting state (EPC)

DE ES FR IT

DOCDB simple family (publication)

**DE 10240493 A1 20040311**; DE 50308287 D1 20071108; EP 1537318 A1 20050608; EP 1537318 B1 20070926; ES 2291732 T3 20080301; JP 2005537431 A 20051208; WO 2004022957 A1 20040318

DOCDB simple family (application)

**DE 10240493 A 20020903**; DE 0302254 W 20030707; DE 50308287 T 20030707; EP 03793447 A 20030707; ES 03793447 T 20030707; JP 2004533196 A 20030707