

Title (en)
Common-rail fuel-injection system

Title (de)
Common-Rail-Kraftstoffeinspritzsystem

Title (fr)
Système d'injection de combustible à rampe commune

Publication
EP 0971119 A2 20000112 (EN)

Application
EP 99305441 A 19990708

Priority
JP 19348898 A 19980708

Abstract (en)
A common-rail fuel-injection system is disclosed, in which varying the effective stroke of an actuator-operated valve (42) results in adjusting an amount of fuel leaking out of a pressure-control chamber (40), thereby controlling the fuel injection in compliance with the engine operating conditions. When the lift of the valve (42) is small and therefore the opening area of the valve (42) is less than the cross-sectioned area of a fuel leakage path (41), the leakage of high-pressure fuel out of the pressure is defined by the lift of the valve (42). According to the pressure fall in the pressure-control chamber (40), the lift of a needle valve (24) is regulated to thereby control the fuel-injection rating, namely, the quantity of fuel injected and the rate of change of the fuel-injection rating. An exciting signal applied to the actuator (65) to operate the its associated valve is determined in accordance with a desired fuel-injection rating or the like, which is found in compliance with the engine operating conditions.
<IMAGE>

IPC 1-7
F02M 47/02; F02D 41/38

IPC 8 full level
F02M 37/00 (2006.01); **F02D 41/20** (2006.01); **F02D 41/38** (2006.01); **F02D 41/40** (2006.01); **F02M 45/12** (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 59/46** (2006.01); **F02M 61/18** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)
F02D 41/2096 (2013.01); **F02M 45/12** (2013.01); **F02M 47/027** (2013.01); **F02M 61/1806** (2013.01); **F02M 63/0017** (2013.01); **F02M 63/0026** (2013.01); **F02M 63/0068** (2013.01); **F02D 41/3845** (2013.01); **F02D 2250/31** (2013.01); **F02M 2200/21** (2013.01)

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Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0971119 A2 20000112; EP 0971119 A3 20020213; EP 0971119 B1 20040922; DE 69920338 D1 20041028; DE 69920338 T2 20051006; JP 2000027725 A 20000125

DOCDB simple family (application)
EP 99305441 A 19990708; DE 69920338 T 19990708; JP 19348898 A 19980708