

Title (en)
FUEL INJECTION SYSTEM FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
KRAFTSTOFFEINSPRITZANLAGE FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
SYSTEME D'INJECTION DE CARBURANT D'UN MOTEUR A COMBUSTION INTERNE

Publication
EP 0946828 B1 20040331 (DE)

Application
EP 98942475 A 19980701

Priority
• DE 9801816 W 19980701
• DE 19746491 A 19971022

Abstract (en)
[origin: DE19746491A1] A fuel injection system for an IC engine has a common rail pressurized system for the fuel and a parallel pressurized system for the additional fluid e.g. water. The additional fluid is taken from a pressure reservoir (7) which is loaded by an electric powered pump (8) and protected by a non return valve (11) between the pump and the reservoir. A venting valve (9) maintains the pressure in the reservoir. The additional fluid is dosed into the injectors by a control valve (10) with the timing controlled by a 2/2 valve (MV1) between the common rail feed and the injectors.

IPC 1-7
F02M 43/00; **F02M 43/04**

IPC 8 full level
F02M 25/022 (2006.01); **F02M 43/00** (2006.01); **F02M 43/04** (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 55/02** (2006.01)

CPC (source: EP KR US)
F02M 43/00 (2013.01 - EP KR US); **F02M 43/04** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19746491 A1 19990429; CN 1109815 C 20030528; CN 1242819 A 20000126; DE 59811107 D1 20040506; EP 0946828 A1 19991006; EP 0946828 B1 20040331; JP 2001506728 A 20010522; KR 20000069637 A 20001125; US 6142107 A 20001107; WO 9920890 A1 19990429

DOCDB simple family (application)
DE 19746491 A 19971022; CN 98801554 A 19980701; DE 59811107 T 19980701; DE 9801816 W 19980701; EP 98942475 A 19980701; JP 52291899 A 19980701; KR 19997005648 A 19990621; US 33147799 A 19990802