

Title (en)
FUEL INJECTOR COMPRISING BOOSTER FOR MULTIPLE INJECTION

Title (de)
KRAFTSTOFFINJEKTOR MIT DRUCKÜBERSETZER FÜR MEHRFACHEINSPRITZUNG

Title (fr)
INJECTEUR DE CARBURANT A MULTIPLICATEUR DE PRESSION POUR INJECTION MULTIPLE

Publication
EP 1520101 B1 20051102 (DE)

Application
EP 03720254 A 20030403

Priority
• DE 0301097 W 20030403
• DE 10229412 A 20020629

Abstract (en)
[origin: WO2004003378A1] The invention relates to a device for injecting fuel into the combustion chamber (7) of an internal combustion engine. The device for injecting fuel comprises a high-pressure accumulator chamber (2), a booster (5) and a metering valve (6). The booster (5) comprises a working chamber (10) and a control chamber (11) that are separated by an axially displaceable piston (12; 13, 14). A pressure change in the control chamber (11) of the booster (5) results in a pressure change in a compression chamber (15) of the booster (5). The compression chamber (15) communicates with a hydraulic chamber (31) that impinges an injection valve member (34). The piston (12; 13, 14) impinging the compression chamber (15) of the booster (5) is provided with control sections (19, 21) via which the hydraulic chamber (31) of the injection valve member (34) can be relieved from pressure.

IPC 1-7
F02M 63/02; **F02M 47/02**; **F02M 45/02**

IPC 8 full level
F02M 47/00 (2006.01); **F02M 45/02** (2006.01); **F02M 45/06** (2006.01); **F02M 47/02** (2006.01); **F02M 57/02** (2006.01); **F02M 59/10** (2006.01); **F02M 61/20** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 45/02 (2013.01 - EP US); **F02M 45/066** (2013.01 - EP US); **F02M 47/02** (2013.01 - EP US); **F02M 47/025** (2013.01 - EP US); **F02M 57/025** (2013.01 - EP US); **F02M 59/105** (2013.01 - EP US); **F02M 61/205** (2013.01 - EP US); **F02M 2200/304** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 2004003378 A1 20040108; DE 10229412 A1 20040129; DE 50301574 D1 20051208; EP 1520101 A1 20050406; EP 1520101 B1 20051102; JP 2005531711 A 20051020; US 2005103310 A1 20050519; US 6962141 B2 20051108

DOCDB simple family (application)
DE 0301097 W 20030403; DE 10229412 A 20020629; DE 50301574 T 20030403; EP 03720254 A 20030403; JP 2004516437 A 20030403; US 50344004 A 20040804