

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

Title (de)
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

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

Publication
EP 1702157 B1 20070718 (DE)

Application
EP 04762535 A 20040728

Priority
• DE 2004001690 W 20040728
• DE 10343480 A 20030919

Abstract (en)
[origin: DE10343480A1] A fuel injection device for a combustion engine comprises a high-pressure pump (14), store (16), measuring device for fuel quantity adjustment (36), transfer pump (12), an injector (20) and a fuel return (24) A control valve (42) connects to a discharge region (10) and fuel is only taken from the return in operation if the mixture is weak.

IPC 8 full level
F02M 63/02 (2006.01); **F02M 37/10** (2006.01); **F02M 47/02** (2006.01); **F02M 55/00** (2006.01); **F02M 59/34** (2006.01)

CPC (source: EP US)
F02M 37/106 (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 55/002** (2013.01 - EP US); **F02M 59/34** (2013.01 - EP US);
F02M 63/0225 (2013.01 - EP US); **F02M 63/025** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 10343480 A1 20050414; CN 100455789 C 20090128; CN 1853043 A 20061025; DE 502004004399 D1 20070830; EP 1702157 A1 20060920; EP 1702157 B1 20070718; JP 2006514721 A 20060511; JP 4217714 B2 20090204; US 2006169252 A1 20060803; US 7219654 B2 20070522; WO 2005038237 A1 20050428

DOCDB simple family (application)
DE 10343480 A 20030919; CN 200480027075 A 20040728; DE 2004001690 W 20040728; DE 502004004399 T 20040728; EP 04762535 A 20040728; JP 2005518301 A 20040728; US 54945805 A 20050914