

Title (en)

FUEL INJECTOR PROVIDED WITH A PRESSURE TRANSMITTER CONTROLLED BY A SERVO VALVE

Title (de)

SERVOVENTILANGESTEUERTER KRAFTSTOFFINJEKTOR MIT DRUCKÜBERSETZER

Title (fr)

INJECTEUR DE CARBURANT COMPORTANT UN TRANSMETTEUR DE PRESSION COMMANDE PAR UNE SOUPAPE ASSERVIE

Publication

EP 1613856 B1 20080709 (DE)

Application

EP 04717030 A 20040304

Priority

- DE 2004000413 W 20040304
- DE 10315014 A 20030402
- DE 10325620 A 20030605

Abstract (en)

[origin: WO2004088122A1] The invention relates to a fuel injector for injecting a fuel into the combustion chamber (23) of an internal combustion engine. The inventive injector (18) comprises a pressure transmitter (3) whose pressure relay piston (4) separates the working chamber (5) continuously receiving the fuel supplied by a pressure source (1,2) from a differential decompression pressure chamber (6). A pressure fluctuation is produced in said differential pressure chamber (6) by means of a servo valve (24) which closes or opens a hydraulic connection (21, 39, 42) between the differential pressure chamber (6) and a first return run (28) on a low-pressure side. The servo valve (24) comprises a piston (32) arranged between a control chamber (36) and first hydraulic chamber (38). A hydraulic surface (44) which continuously brings the piston (32) in the open position thereof when the pressure system is actuated, and a sealing surface (40) which closes or opens a return run (28) on a low pressure side are formed on said piston.

IPC 8 full level

F02M 59/10 (2006.01); **F02M 47/02** (2006.01); **F02M 57/02** (2006.01); **F02M 59/32** (2006.01); **F02M 59/46** (2006.01); **F02M 63/00** (2006.01); **F02M 63/02** (2006.01)

CPC (source: EP US)

F02M 47/027 (2013.01 - EP US); **F02M 57/025** (2013.01 - EP US); **F02M 57/026** (2013.01 - EP US); **F02M 59/105** (2013.01 - EP US); **F02M 63/0015** (2013.01 - EP US); **F02M 63/0029** (2013.01 - EP US); **F02M 63/004** (2013.01 - EP US); **F02M 63/0043** (2013.01 - EP US); **F02M 63/0045** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F02M 2547/001** (2013.01 - EP US)

Cited by

EP1593840A3

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 2004088122 A1 20041014; EP 1613856 A1 20060111; EP 1613856 B1 20080709; JP 2006522254 A 20060928; US 2006243252 A1 20061102; US 7320310 B2 20080122

DOCDB simple family (application)

DE 2004000413 W 20040304; EP 04717030 A 20040304; JP 2006504247 A 20040304; US 55146105 A 20050930