

Title (en)
FUEL INJECTION DEVICE WITH A PRESSURE BOOSTER

Title (de)
KRAFTSTOFFEINSPRITZEINRICHTUNG MIT DRUCKVERSTÄRKER

Title (fr)
SYSTEME D'INJECTION DE CARBURANT COMPORTANT UN AMPLIFICATEUR DE PRESSION

Publication
EP 1397593 B1 20070815 (DE)

Application
EP 02742762 A 20020517

Priority
• DE 0201792 W 20020517
• DE 10126686 A 20010601

Abstract (en)
[origin: DE10126686A1] The fuel injection system (1), for an internal combustion motor, has a pressure amplifier (4) with a sliding piston (6) which compresses the fuel from a low pressure zone (10) into a high pressure zone (9) to give the fuel its pressure to pass to the fuel injector (3). The piston stroke is controlled by the pressure in a pressure difference zone (7), to set the fuel pressure at the injector. A slit opening between the pressure difference zone and a leakage line (21), with an opening/closing piston, gives a cross section control of the outflow cross section from the difference pressure zone in two stages according to the stroke (h) of the pressure amplifier piston (6).

IPC 8 full level
F02M 47/00 (2006.01); **F02M 57/02** (2006.01); **F02M 47/02** (2006.01); **F02M 55/00** (2006.01); **F02M 59/10** (2006.01); **F02M 59/34** (2006.01)

CPC (source: EP US)
F02M 47/027 (2013.01 - EP US); **F02M 55/002** (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 59/34** (2013.01 - EP US)

Citation (examination)
• DE 2803049 A1 19790809 - BOSCH GMBH ROBERT
• DE 4004610 A1 19901025 - BOSCH GMBH ROBERT [DE]
• EP 0879954 A2 19981125 - STANADYNE AUTOMOTIVE CORP [US]
• WO 0152916 A2 20010726 - BOSCH GMBH ROBERT [DE], et al

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 10126686 A1 20021219; DE 50210713 D1 20070927; EP 1397593 A1 20040317; EP 1397593 B1 20070815; JP 2004521242 A 20040715; JP 4126011 B2 20080730; US 2004089269 A1 20040513; US 6938610 B2 20050906; WO 02099270 A1 20021212

DOCDB simple family (application)
DE 10126686 A 20010601; DE 0201792 W 20020517; DE 50210713 T 20020517; EP 02742762 A 20020517; JP 2003502362 A 20020517; US 34321503 A 20030725