

Title (en)

Fuel injection valve for internal combustion engines

Title (de)

Kraftstoffeinspritzventil für Brennkraftmaschinen

Title (fr)

Soupape d'injection de combustible pour moteurs à combustion interne

Publication

EP 0864743 B1 20030611 (DE)

Application

EP 97120314 A 19971120

Priority

DE 19709795 A 19970310

Abstract (en)

[origin: EP0864743A2] The fuel injection valve has in a valve body (1) an axially sliding valve member (5) which has a sealing face (7) at one end. With this face it works together with a valve seating face (9) on the valve body to control an injection cross-section. From the seating face, at least one injection opening leads into the combustion chamber. There is an electrical control member (23) operating the valve member axially through a hydraulic working chamber (19). A second electrical control member (27) is provided to operate the valve member, controlled independently of the first one. The hydraulic working chamber is bounded by a valve piston (17) connected to the valve member and by adjusting pistons (25,29) connected to the control members.

IPC 1-7

F02M 47/04

IPC 8 full level

F02M 47/00 (2006.01); **F02M 47/04** (2006.01); **F02M 51/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 47/046 (2013.01); **F02M 51/0603** (2013.01); **F02M 2200/704** (2013.01)

Cited by

CN105745832A; DE10333427B3; EP2500550A1; CN103459808A; CN110440046A; DE10333573B3; DE10333693B3; EP1167746A3; US6685105B1; US6460779B1; US10355622B2; US10156191B2; WO02053958A1; WO0129403A1; WO2005026531A1; WO2015044420A3; WO2012123264A1; WO2013087475A1; WO0017508A1; WO2016045989A1; WO2006128751A1; WO0017510A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0864743 A2 19980916; EP 0864743 A3 20010808; EP 0864743 B1 20030611; DE 19709795 A1 19980917; DE 59710265 D1 20030717; JP H10252598 A 19980922

DOCDB simple family (application)

EP 97120314 A 19971120; DE 19709795 A 19970310; DE 59710265 T 19971120; JP 5534598 A 19980306