

Title (en)

ELECTRICALLY CONTROLLED MONOBLOC INJECTION PUMP AND NOZZLE FOR THE FUEL INJECTION OF DIESEL ENGINES

Publication

EP 0178428 B1 19890426 (DE)

Application

EP 85110504 A 19850821

Priority

DE 3433710 A 19840914

Abstract (en)

[origin: US4669659A] The unit fuel injector has a pump piston driven at a constant stroke length, which pumps fuel at injection pressure to an injection nozzle as long as an electrically actuated overflow valve blocks the flow of the fuel flowing from the pump work chamber to a low-pressure chamber via an overflow conduit. The overflow valve is inserted between a first section which communicates continuously with the pump work chamber and a second section leading to the low-pressure chamber of the overflow conduit and is secured to a housing part laterally projecting from the pump housing. The first section of the overflow conduit comprises a connecting bore leading away from the pump work chamber, a control conduit controlled by the overflow valve, and a transverse conduit connecting these two. The transverse conduit extends from the housing side remote from the projecting housing part to the control conduit, crossing through the cylinder bore and in every stroke position of the pump piston is sealed off, without additional sealing means, by the jacket face of the pump piston. The unit fuel injector is particularly suitable for high-pressure injection in Diesel engines.

IPC 1-7

F02M 57/02; **F02M 59/36**

IPC 8 full level

F02M 57/02 (2006.01); **F02M 59/36** (2006.01); **F02M 59/44** (2006.01)

CPC (source: EP US)

F02M 57/02 (2013.01 - EP US); **F02M 57/023** (2013.01 - EP US); **F02M 59/366** (2013.01 - EP US); **F02M 59/44** (2013.01 - EP US)

Cited by

US5485823A; US4836161A; EP0528226A1; WO9210669A1; WO9210666A1; WO2019110190A1

Designated contracting state (EPC)

AT DE FR GB IT

DOCDB simple family (publication)

US 4669659 A 19870602; AT E42612 T1 19890515; DE 3433710 A1 19860327; DE 3569784 D1 19890601; EP 0178428 A2 19860423; EP 0178428 A3 19871216; EP 0178428 B1 19890426; JP H0551064 B2 19930730; JP S6172869 A 19860414

DOCDB simple family (application)

US 77586685 A 19850913; AT 85110504 T 19850821; DE 3433710 A 19840914; DE 3569784 T 19850821; EP 85110504 A 19850821; JP 20187085 A 19850913