

Title (en)
FUEL INJECTION DEVICE FOR DIESEL ENGINES

Publication
EP 0260479 B1 19901107 (DE)

Application
EP 87112217 A 19870822

Priority
CH 371986 A 19860917

Abstract (en)
[origin: EP0260479A1] The fuel injection device has a fuel pump with a pump piston (3) driven by a camshaft and delivering fuel into a pump chamber (4). The pump piston has one helix (10) determining the start of pumping and a second helix (11) determining the end of pumping, which both act in conjunction with one and the same aperture (12) in the cylinder wall. Attached to the pump chamber (4) is a conduit (16) leading to the overflow conduit (15), in which conduit (16) there is an overflow valve (17) on which the fuel pressure in the pump chamber acts in the closing direction. The pump piston (3) is fitted with at least a third helix (20) connected to the pump chamber (4), the helix acting in conjunction with a further aperture (28) in the cylinder wall. A fuel-filled chamber (30) connected to this further aperture (28) is connected to the overflow conduit (15) via a top-up valve (34) and a control valve (36). In the chamber (30) is a piston (31) to which the fuel is admitted, which operates in conjunction with the overflow valve (17) in such a way that, when pumping commences before the top dead centre, the overflow valve is temporarily opened during the pumping phase when the third helix (20) forms the connection between the pump chamber and the chamber (30) via the further aperture (28). Opening of the overflow valve (17) is terminated during the pumping phase by opening of the control valve (36). <IMAGE>

IPC 1-7
F02M 45/06

IPC 8 full level
F02M 59/02 (2006.01); **F02M 45/06** (2006.01); **F02M 59/26** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP)
F02M 45/06 (2013.01); **F02B 3/06** (2013.01)

Designated contracting state (EPC)
DE FR GB IT NL

DOCDB simple family (publication)
EP 0260479 A1 19880323; **EP 0260479 B1 19901107**; CH 670866 A5 19890714; DE 3766058 D1 19901213; DK 166223 B 19930322; DK 166223 C 19930816; DK 357487 A 19880318; DK 357487 D0 19870709; FI 873386 A0 19870804; FI 873386 A 19880318; FI 96055 B 19960115; FI 96055 C 19960425; JP 2637993 B2 19970806; JP S6385257 A 19880415

DOCDB simple family (application)
EP 87112217 A 19870822; CH 371986 A 19860917; DE 3766058 T 19870822; DK 357487 A 19870709; FI 873386 A 19870804; JP 23199687 A 19870916