

Title (en)

Fuel injection apparatus for an internal combustion engine.

Title (de)

Brennstoffeinspritzvorrichtung für eine Brennkraftmaschine.

Title (fr)

Dispositif d'injection de combustible pour un moteur à combustion interne.

Publication

EP 0418800 B1 19931020 (DE)

Application

EP 90117905 A 19900918

Priority

DE 3931338 A 19890920

Abstract (en)

[origin: EP0418800A2] A fuel injection apparatus for the injection of an initial quantity and a main quantity of fuel has a hydraulically operated pre-injection piston which acts upon a pre-injection piston chamber. The pre-injection piston chamber is directly connected to a pre-injection line and via a connecting duct to a main injection line, the pre-injection piston closing off the connecting duct on completion of the pre-injection. This facilitates a structurally simple design of the fuel injection apparatus and the pre-injection piston chamber can be filled without a separate fuel feed pump.

IPC 1-7

F02M 45/06; **F02M 59/46**

IPC 8 full level

F02M 45/06 (2006.01); **F02M 59/46** (2006.01)

CPC (source: EP)

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Citation (examination)

DE 3334619 A1 19850411 - BOSCH GMBH ROBERT [DE]

Cited by

EP0821154A1; US5873527A; EP0611094A1; US5390692A

Designated contracting state (EPC)

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EP 0418800 A2 19910327; **EP 0418800 A3 19911009**; **EP 0418800 B1 19931020**; DE 3931338 A1 19910328; DE 59003143 D1 19931125

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