

Title (en)

FUEL INJECTION APPARATUS FOR AN INTERNAL COMBUSTION ENGINE

Publication

EP 0418800 A3 19911009 (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

IPC 8 full level

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

CPC (source: EP)

F02M 45/06 (2013.01); **F02M 59/462** (2013.01)

Citation (search report)

- [A] DE 3731240 A1 19890330 - DAHLMANN GERD UWE [DE]
- [A] DE 3732003 A1 19890406 - DAHLMANN GERD UWE [DE]
- [A] GB 2194600 A 19880309 - BOSCH GMBH ROBERT
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Cited by

US5873527A; EP0821154A1; EP0611094A1; US5390692A

Designated contracting state (EPC)

CH DE FR GB IT LI

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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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