

Title (en)

FUEL INJECTION DEVICE FOR THE PREDEFINED INJECTION OF INTERNAL-COMBUSTION ENGINES

Publication

EP 0142631 B1 19900131 (DE)

Application

EP 84109736 A 19840816

Priority

- DE 3330773 A 19830826
- DE 3425460 A 19840711

Abstract (en)

[origin: US4590903A] A fuel injection apparatus for definite pilot and main injection in internal combustion engines. A hydraulic auxiliary pump is supplied via a pressure line with fuel from a high-pressure injection pump, which fuel reaches a main injection nozzle and simultaneously drives the hydraulic auxiliary pump. The hydraulic auxiliary pump contains a differential piston comprising a reservoir piston and a pilot injection piston with different diameters and with a spring prestressing such that between the end of supply of the pilot injection and the onset of supply of the main injection, an injection-free spacing stroke (DH) which can be predetermined by means of mechanical stops results, during which spacing stroke (DH) the reservoir piston by retracting further, receives the supply quantity which is pumped during the injection interval by the high-pressure injection pump.

IPC 1-7

F02M 45/04

IPC 8 full level

F02M 45/04 (2006.01)

CPC (source: EP US)

F02M 45/04 (2013.01 - EP US)

Citation (examination)

- US 2537087 A 19510109 - THEODOR PYK HERMAN, et al
- DE 596917 C 19341115 - WALTER HERRMANN DIPL ING

Cited by

EP0610585A1

Designated contracting state (EPC)

AT DE FR GB

DOCDB simple family (publication)

DE 3425460 A1 19850307; DE 3481209 D1 19900308; EP 0142631 A2 19850529; EP 0142631 A3 19870527; EP 0142631 B1 19900131; US 4590903 A 19860527

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DE 3425460 A 19840711; DE 3481209 T 19840816; EP 84109736 A 19840816; US 64408684 A 19840824