

Title (en)
FUEL INJECTION NOZZLE FOR INTERNAL COMBUSTION ENGINES

Publication
EP 0282480 B1 19900207 (DE)

Application
EP 86906291 A 19861107

Priority
• DE 3541131 A 19851121
• DE 3610658 A 19860329

Abstract (en)
[origin: WO8703339A1] Nozzle with a specific injection configuration. A first closure spring (28) operates continually on the valve needle (18) via a central pressure pin (34) and after performing a preliminary travel (hv) a second closure spring (40) operates via a pressure piece (46). This piece is supported during the preliminary travel (hv) via an intermediate sleeve (48) on the nozzle body (10). The preliminary travel (hv) is limited by shoulders (60, 62) on the valve needle (18) and the intermediate sleeve (48). On the other hand the overall travel is limited by shoulders (64, 66) on the intermediate sleeve (48) and intermediate disc (12). It is thus ensured that the preliminary travel (hv) can be adjusted very precisely to a desired value simply by machining the valve needle (18) and does not change during assembly of the injection nozzle.

IPC 1-7
F02M 45/08; **F02M 61/16**

IPC 8 full level
F02M 61/16 (2006.01); **F02M 45/08** (2006.01); **F02M 61/10** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP US)
F02M 45/083 (2013.01 - EP US); **F02M 2200/8015** (2013.01 - EP US)

Cited by
DE19638339B4; DE4440182C2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 8703339 A1 19870604; DE 3610658 A1 19870527; DE 3668949 D1 19900315; EP 0282480 A1 19880921; EP 0282480 B1 19900207; JP 2545523 B2 19961023; JP S63502767 A 19881013; US 4768719 A 19880906

DOCDB simple family (application)
DE 8600453 W 19861107; DE 3610658 A 19860329; DE 3668949 T 19861107; EP 86906291 A 19861107; JP 50582386 A 19861107; US 9015287 A 19870717