

Title (en)
PUMPING DEVICE

Title (de)
PUMPENVORRICHTUNG

Title (fr)
DISPOSITIF DE POMPAGE

Publication
EP 1084343 A1 20010321 (DE)

Application
EP 99927875 A 19990604

Priority

- EP 99927875 A 19990604
- DE 29811215 U 19980623
- DE 29811725 U 19980701
- EP 9903876 W 19990604
- EP 98110177 A 19980604
- EP 98110176 A 19980604

Abstract (en)
[origin: WO9963217A1] The invention relates to a pumping device comprising a pump assembly (4) which is configured as a reciprocating piston pump. The pump displaces fluid by means of a reciprocating piston (6, 7). The inventive pumping device also comprises a stop element (17, 18) which limits the delivery stroke of the reciprocating piston (6, 7) in the direction of delivery (13), and has a dosing device (5) which is driven electrically and independent of the pump assembly (4). Said dosing device is provided for determining the quantity of fluid to be injected by displacing the reciprocating piston (6, 7) with regard to the stop element (17, 18) around a determined, variable accumulating stroke which corresponds to the delivery stroke. Using the inventive pumping device, fluid can be precisely dosed during considerable throughput. The inventive pumping device can be used both during applications which required a high dosing precision as well as for a fuel injection device.

IPC 1-7
F02M 51/04; **F02M 59/10**; **F02M 59/20**; **F02M 69/12**; **F02M 45/00**; **F04B 17/04**

IPC 8 full level
F02M 45/00 (2006.01); **F02M 51/04** (2006.01); **F02M 59/10** (2006.01); **F02M 59/20** (2006.01); **F02M 59/22** (2006.01); **F02M 69/12** (2006.01); **F04B 13/00** (2006.01); **F04B 17/04** (2006.01)

CPC (source: EP)
F02M 45/00 (2013.01); **F02M 51/04** (2013.01); **F02M 59/107** (2013.01); **F02M 59/20** (2013.01); **F02M 59/205** (2013.01); **F02M 59/22** (2013.01); **F02M 69/12** (2013.01); **F04B 13/00** (2013.01); **F04B 17/042** (2013.01); **F04B 2205/063** (2013.01)

Citation (search report)
See references of WO 9963217A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 9963217 A1 19991209; AU 4506799 A 19991220; EP 1084343 A1 20010321

DOCDB simple family (application)
EP 9903876 W 19990604; AU 4506799 A 19990604; EP 99927875 A 19990604