

Title (en)

Apparatus for metering an injected fuel quantity in a fuel-injection engine.

Title (de)

Einrichtung zur Zumessung der eingespritzten Kraftstoffmenge in einen Einspritzmotor.

Title (fr)

Dispositif de mesure du volume de carburant injecté dans un moteur thermique à alimentation par injection.

Publication

EP 0037296 A2 19811007 (FR)

Application

EP 81400339 A 19810305

Priority

- FR 8007158 A 19800331
- FR 8012401 A 19800604

Abstract (en)

1. A device for injecting fuel into a heat engine, comprising a distributing injection pump (1-5; 40-43; 101, 106) connected to a low-pressure fuel source and including, on one hand, a part constituting a pump proper comprising a discharge chamber (14; 47; 112) and a device (18-21; 62-64; 134) for regulating the quantity of fuel to be injected, and, on the other hand, a part constituting a distributor toward a plurality of injectors, and a device for measuring the quantity of fuel injected, of the type comprising a shuttle member (25; 52; 118) movable in a bore (24; 51; 117) provided in a fixed part of the injection pump and a sensor (37; 65; 121) responsive to the displacements of this shuttle member (25; 52; 118), characterised in that the bore (24; 51; 117) of the measuring device comprises a first end (24a; 51a; 116) hydraulically connected to the discharge chamber (14; 47; 112) of the part constituting a pump, at least during the discharge stage of this part constituting a pump, and an opposite end (24b; 51b; 124) solely and successively connected through the part constituting a distributor, on one hand, to the low-pressure fuel source and, on the other hand, to the injectors, the shuttle member being biased by a spring (26; 53; 123) toward said first end of the bore to its initial position.

Abstract (fr)

Cette invention vise à réaliser un dispositif de mesure du volume de carburant fourni par un injecteur d'alimentation de moteur thermique, qui soit plus précis et plus fidèle que les dispositifs connus. Ce dispositif, associé à une pompe d'injection distributrice, comprend une navette (25) mobile dans un alésage (24) situé dans le circuit d'alimentation en carburant du moteur et un capteur (37) sensible au déplacement de cette navette. Il est caractérisé en ce que ledit alésage (24) contenant la navette (25) est disposé sur le trajet de refoulement entre la pompe (1,2,3) et le ou chaque injecteur (31).

IPC 1-7

F02M 59/32; **F02M 41/12**; **F02M 41/06**; **F02M 41/14**

IPC 8 full level

F02M 41/06 (2006.01); **F02M 41/12** (2006.01); **F02M 59/32** (2006.01)

CPC (source: EP)

F02M 41/063 (2013.01); **F02M 41/123** (2013.01); **F02M 59/32** (2013.01); **F02M 2200/24** (2013.01)

Cited by

DE19516686A1; GB2178800A; FR2585775A1; US4690108A; GB2178800B; WO2006042789A1; EP0094640B1

Designated contracting state (EPC)

DE GB IT

DOCDB simple family (publication)

EP 0037296 A2 19811007; **EP 0037296 A3 19811111**; **EP 0037296 B1 19861112**; DE 3175608 D1 19870102

DOCDB simple family (application)

EP 81400339 A 19810305; DE 3175608 T 19810305