

Title (en)
FUEL INJECTION VALVE FOR INTERNAL COMBUSTION ENGINES

Title (de)
KRAFTSTOFFEINSPRITZVENTIL FÜR BRENNKRAFTMASCHINEN

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE

Publication
EP 1407133 B1 20101013 (DE)

Application
EP 02754314 A 20020704

Priority
• DE 0202443 W 20020704
• DE 10133166 A 20010707

Abstract (en)
[origin: WO03004865A1] The invention relates to a fuel supply device comprising a housing (1), in which a plunger-shaped component (5) is situated whereby being able to be longitudinally displaced inside a boring (3). Said boring is guided inside the boring (3) in a sealing manner with a guiding section (105) . The guiding section (105) borders, at one end, on a first fuel-filled space (19) and, at the other end, on a second fuel-filled space (15). At least one recess (30), which extends in an at least approximately peripheral direction, is provided inside the guide section (105) of the plunger-shaped component (5). Said recess extends at least over a portion of the periphery of the plunger-shaped component (5) and, when viewed in the longitudinal direction of the plunger-shaped component (5), has an asymmetrical cross-section.

IPC 8 full level
F02M 61/12 (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP KR US)
F02M 61/04 (2013.01 - KR); **F02M 61/12** (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US); **F02M 2200/02** (2013.01 - EP US); **F02M 2200/16** (2013.01 - EP US)

Cited by
US7575062B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 03004865 A1 20030116; BR 0205718 A 20030722; CN 1308592 C 20070404; CN 1464941 A 20031231; DE 10133166 A1 20030116; DE 50214714 D1 20101125; EP 1407133 A1 20040414; EP 1407133 B1 20101013; JP 2004521264 A 20040715; JP 4204462 B2 20090107; KR 20030036754 A 20030509; PL 201527 B1 20090430; PL 370638 A1 20050530; US 2004079818 A1 20040429; US 7143965 B2 20061205

DOCDB simple family (application)
DE 0202443 W 20020704; BR 0205718 A 20020704; CN 02802324 A 20020704; DE 10133166 A 20010707; DE 50214714 T 20020704; EP 02754314 A 20020704; JP 2003510605 A 20020704; KR 20037003307 A 20030306; PL 37063802 A 20020704; US 36373903 A 20030915