

Title (en)

FUEL-INJECTION VALVE FOR INTERNAL-COMBUSTION ENGINES.

Title (de)

KRAFTSTOFF-EINSPRITZDÜSE FÜR BRENNKRAFTMASCHINEN.

Title (fr)

INJECTEUR DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE.

Publication

EP 0516628 B1 19940406

Application

EP 91901693 A 19910117

Priority

- DE 4005774 A 19900223
- DE 9100027 W 19910117

Abstract (en)

[origin: DE4005774A1] The fuel-injection nozzle has a needle valve sliding in a body secured to a holder. A chamber in the latter accommodates two coil-type compression springs acting in succession on the valve. The first spring, furthest from the nozzle, is supported by the bottom of the spring chamber, and acts via a thrust pin passing through the second spring on the valve. The second spring is supported by the housing and acts via a thrust member on the valve. The second spring (28) is supported from the bottom (34) of the spring chamber (24) by a second thrust pin (50) coaxial to the first (30) and passing through the first spring (26). The ends of the two pins towards each other have heads (38, 52) with fingers (40, 54) alongside and passing between each other, and on which the springs are supported.

IPC 1-7

F02M 45/08; F02M 61/20

IPC 8 full level

F02M 45/08 (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP US)

F02M 45/083 (2013.01 - EP US); **F02M 61/20** (2013.01 - EP US); **Y10T 403/655** (2015.01 - EP US)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

DE 4005774 A1 19910829; DE 59101332 D1 19940511; EP 0516628 A1 19921209; EP 0516628 B1 19940406; JP H05504179 A 19930701; US 5244152 A 19930914; WO 9114092 A1 19910919

DOCDB simple family (application)

DE 4005774 A 19900223; DE 59101332 T 19910117; DE 9100027 W 19910117; EP 91901693 A 19910117; JP 50218491 A 19910117; US 91003292 A 19920727