

Title (en)
LIQUID INJECTION VALVE

Title (de)
VENTIL FÜR FLÜSSIGKEITSEINSPRITZUNG

Title (fr)
SOUPAPE D'INJECTION DE LIQUIDES

Publication
EP 1706631 B1 20080723 (DE)

Application
EP 04703786 A 20040121

Priority
EP 2004000434 W 20040121

Abstract (en)
[origin: WO2005071253A1] Disclosed is a liquid injection valve (1), particularly for internal combustion engines, comprising an injection valve (2) that is to be opened and closed by means of an injection valve needle (4) for injecting liquid, said injection valve needle being movable via a pilot valve (3). The pilot valve (3) encompasses a valve housing (10) with flow channels, a pressure chamber (23) located adjacent to the injection valve needle (4) in an axial direction for controlling the axial movement of the injection valve needle (4), and a self-centering valve member (11, 20, 25) for opening and closing a discharge duct (24) of the pressure chamber (23). The injection valve needle can be controlled with precision by means of the valve member which preferably comprises a ball (25) and a valve needle (11).

IPC 8 full level
F02M 47/02 (2006.01); **F02M 59/46** (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP)
F02M 47/027 (2013.01); **F02M 61/12** (2013.01); **F02M 61/161** (2013.01)

Designated contracting state (EPC)
AT CH DE LI

DOCDB simple family (publication)
WO 2005071253 A1 20050804; AT E402336 T1 20080815; DE 502004007701 D1 20080904; EP 1706631 A1 20061004;
EP 1706631 B1 20080723

DOCDB simple family (application)
EP 2004000434 W 20040121; AT 04703786 T 20040121; DE 502004007701 T 20040121; EP 04703786 A 20040121