

Title (en)
INJECTION NOZZLE

Title (de)
EINSPRITZDÜSE

Title (fr)
INJECTEUR

Publication
EP 1929149 A1 20080611 (DE)

Application
EP 06792593 A 20060728

Priority
• EP 2006064763 W 20060728
• DE 102005040912 A 20050830

Abstract (en)
[origin: WO2007025815A1] The invention relates to an injection nozzle (1) for an internal combustion engine, especially of a motor vehicle. Said injection nozzle (1) comprises a nozzle needle (3) which is mounted in a vertically adjustable manner in a nozzle member (2) to control injection of fuel that is under injection pressure through at least one spray port (5), and a coupling piston assembly (21) that is drivingly connected to an actuator (20) and is provided with a coupling surface (22). The nozzle needle (3) or a bunch of needles (10) encompassing the nozzle needle (3) are/is provided with a control surface (13) that is hydraulically coupled to the coupling surface (22). In order to be able to design the actuator (20) shorter in an axial direction, an entraining piston (26) is supplied which is provided with an entraining surface (27) that is hydraulically coupled to the control surface (13) while an entraining coupling (28) is supplied which transmits tractive forces from the coupling piston assembly (21) to the entraining piston (26) and entrains the entraining piston (26) only once a shifting lift (29) has been reached when the actuator (20) is lifted in an opening manner.

IPC 8 full level
F02M 51/06 (2006.01); **F02M 63/00** (2006.01); **F02M 63/02** (2006.01)

CPC (source: EP)
F02M 51/0603 (2013.01); **F02M 63/0225** (2013.01); **F02M 2200/703** (2013.01)

Citation (search report)
See references of WO 2007025815A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 102005040912 A1 20070308; DE 502006004022 D1 20090730; EP 1929149 A1 20080611; EP 1929149 B1 20090617;
WO 2007025815 A1 20070308

DOCDB simple family (application)
DE 102005040912 A 20050830; DE 502006004022 T 20060728; EP 06792593 A 20060728; EP 2006064763 W 20060728