

Title (en)
INJECTION NOZZLE

Title (de)
EINSPRITZDÜSE

Title (fr)
INJECTEUR

Publication
EP 1704322 A1 20060927 (DE)

Application
EP 04802622 A 20041019

Priority
• DE 2004002325 W 20041019
• DE 10358861 A 20031216

Abstract (en)
[origin: WO2005059350A1] The invention relates to an injection nozzle (1) for an internal combustion engine, comprising a first needle (3) for controlling first injection holes (7) and a second needle (4) for controlling second injection holes (8). A fuel feed line (9) is connected to a fuel supply device (10) and leads to the injection holes (7, 8). A first pressure level (16) of the first needle (3) prevails during exertion of pressure in the direction of opening (19) of the first needle (4). A second pressure level (25) of the second needle (4) prevails during the exertion of pressure in the direction of opening (19) of the second needle (4). In order to reduce the response time of the second needle (4) during increased fuel high pressure, a control surface (33) is assigned to the second needle assembly (28), said control surface being arranged in a control chamber (34) that is connected to the fuel supply device and operating during the exertion of pressure in the direction of opening (19) of the second needle.

IPC 8 full level
F02M 45/08 (2006.01); **F02M 47/06** (2006.01); **F02M 61/20** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)
F02M 45/086 (2013.01); **F02M 61/205** (2013.01); **F02M 63/0005** (2013.01); **F02M 2200/46** (2013.01)

Citation (search report)
See references of WO 2005059350A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 2005059350 A1 20050630; DE 10358861 A1 20050714; DE 502004005873 D1 20080214; EP 1704322 A1 20060927; EP 1704322 B1 20080102

DOCDB simple family (application)
DE 2004002325 W 20041019; DE 10358861 A 20031216; DE 502004005873 T 20041019; EP 04802622 A 20041019