

Title (en)

FUEL INJECTION NOZZLE FOR INTERNAL COMBUSTION ENGINES

Title (de)

KRAFTSTOFF-EINSPRITZDÜSE FÜR BRENNKRAFTMASCHINEN

Title (fr)

INJECTEUR DE CARBURANT POUR MOTEURS À COMBUSTION INTERNE

Publication

EP 2504561 B1 20150114 (DE)

Application

EP 10781443 A 20101123

Priority

- DE 102009054441 A 20091125
- EP 2010007086 W 20101123

Abstract (en)

[origin: WO2011063929A1] The invention relates to a fuel injection nozzle for internal combustion engines, in particular self-ignition-type internal combustion engines, comprises a nozzle needle (5) having a shank section (7) guided in a longitudinal bore (4) of the nozzle body (2), which shank section transitions into a constricted shank section (14) passing through a pressure chamber (9), wherein the transition between said shank sections is located within the longitudinal bore (4) spaced from the junction thereof into the pressure chamber (9).

IPC 8 full level

F02M 61/18 (2006.01)

CPC (source: EP KR)

F02M 61/10 (2013.01 - KR); **F02M 61/18** (2013.01 - EP); **F02M 61/1893** (2013.01 - KR)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2011063929 A1 20110603; CN 102725511 A 20121010; CN 102725511 B 20151007; DE 102009054441 A1 20110630;
DK 2504561 T3 20150420; EP 2504561 A1 20121003; EP 2504561 B1 20150114; KR 101682346 B1 20161205; KR 20120086738 A 20120803

DOCDB simple family (application)

EP 2010007086 W 20101123; CN 201080053591 A 20101123; DE 102009054441 A 20091125; DK 10781443 T 20101123;
EP 10781443 A 20101123; KR 20127016522 A 20101123