

Title (en)
PUMP NOZZLE

Title (de)
PUMPENDÜSE

Title (fr)
INJECTEUR-POMPE

Publication
EP 0914554 B1 20021127 (DE)

Application
EP 98928289 A 19980518

Priority
• DE 19721241 A 19970521
• EP 9802917 W 19980518

Abstract (en)
[origin: DE19721241C1] The invention relates to a pump nozzle (1) for injecting fuel into an internal combustion engine, especially a single cylinder diesel engine, comprising a piston foot (3), a pump cylinder (8), a pump piston (7), an intermediate disk (16), and an injection nozzle with a pressure spring (14), a pressure spring plate (15) and a nozzle needle (20). The inventive pump nozzle has a reduced construction length by virtue of the pressure spring (14) being offset to the side of the nozzle needle axis.

IPC 1-7
F02M 57/02; F02M 61/20

IPC 8 full level
F02M 55/00 (2006.01); **F02M 57/02** (2006.01); **F02M 59/10** (2006.01); **F02M 59/28** (2006.01); **F02M 59/44** (2006.01); **F02M 59/48** (2006.01);
F02M 61/10 (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP US)
F02M 55/00 (2013.01 - EP US); **F02M 57/023** (2013.01 - EP US); **F02M 59/102** (2013.01 - EP US); **F02M 59/28** (2013.01 - EP US);
F02M 59/44 (2013.01 - EP US); **F02M 59/48** (2013.01 - EP US); **F02M 61/20** (2013.01 - EP US)

Designated contracting state (EPC)
DE GB IT

DOCDB simple family (publication)
DE 19721241 C1 19981105; CN 1083936 C 20020501; CN 1226949 A 19990825; DE 59806428 D1 20030109; EP 0914554 A1 19990512;
EP 0914554 B1 20021127; JP 2000515609 A 20001121; US 6202940 B1 20010320; WO 9853196 A1 19981126

DOCDB simple family (application)
DE 19721241 A 19970521; CN 98800668 A 19980518; DE 59806428 T 19980518; EP 9802917 W 19980518; EP 98928289 A 19980518;
JP 54993898 A 19980518; US 21447299 A 19990121