

Title (en)
FUEL INJECTION VALVE

Title (de)
KRAFTSTOFFEINSPRITZVENTIL

Title (fr)
INJECTEUR DE CARBURANT

Publication
EP 2470771 A1 20120704 (DE)

Application
EP 10734739 A 20100719

Priority
• DE 102009029542 A 20090917
• DE 102009028960 A 20090828
• EP 2010060415 W 20100719

Abstract (en)
[origin: WO2011023467A1] The invention relates to a fuel injection valve for injecting fuel into a combustion chamber of an internal combustion engine, having a nozzle needle (1) which is guided, such that it can perform a stroke movement, in a central bore (2) of a nozzle body (3) in order to open up or close off at least one injection opening (4), wherein the nozzle needle (1) interacts, by means of an encircling sealing region (5) formed on the combustion-chamber-side end thereof, with a sealing seat (6) that runs conically and is formed on the combustion-chamber-side end of the nozzle body (3). According to the invention, the sealing seat (6) that runs conically has an opening angle (α_1) of between 30° and 50°, preferably of between 40° and 50°.

IPC 8 full level
F02M 61/10 (2006.01); **F02M 61/12** (2006.01); **F02M 61/18** (2006.01)

CPC (source: EP US)
F02M 61/10 (2013.01 - EP US); **F02M 61/12** (2013.01 - EP US); **F02M 61/18** (2013.01 - EP US); **F02M 61/1886** (2013.01 - EP US)

Citation (search report)
See references of WO 2011023467A1

Cited by
CN104088741A

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 SE SI SK SM TR

DOCDB simple family (publication)
DE 102009029542 A1 20110303; CN 102625878 A 20120801; CN 102625878 B 20160309; EP 2470771 A1 20120704;
EP 2470771 B1 20130911; RU 2012111981 A 20131020; RU 2541367 C2 20150210; US 2012153053 A1 20120621; US 9441590 B2 20160913;
WO 2011023467 A1 20110303

DOCDB simple family (application)
DE 102009029542 A 20090917; CN 201080037997 A 20100719; EP 10734739 A 20100719; EP 2010060415 W 20100719;
RU 2012111981 A 20100719; US 201013392914 A 20100719