

Title (en)

Nozzle needle for a fuel injector and fuel injector

Title (de)

Düsennadel für Kraftstoffeinspritzdüse und Kraftstoffeinspritzdüse

Title (fr)

Aiguille d'injecteur pour injecteur de combustible et injecteur de combustible

Publication

EP 2487361 A1 20120815 (EN)

Application

EP 11154313 A 20110214

Priority

EP 11154313 A 20110214

Abstract (en)

The present disclosure refers to a nozzle needle (34) adapted to be used in a fuel injector (10). The nozzle needle comprises a first cylindrical part (36) formed with an abutment surface (38) at or proximal to a terminal end. The abutment surface is shaped to abut on a valve seat surface formed on an injector body, within which the nozzle needle is moveable. The nozzle needle is formed as a unitary member from a ceramic material.

IPC 8 full level

F02M 61/06 (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR)

F02M 61/06 (2013.01 - EP KR); **F02M 61/16** (2013.01 - KR); **F02M 61/166** (2013.01 - EP); **F02M 61/18** (2013.01 - EP KR); **F02M 61/188** (2013.01 - EP); **F02M 61/1893** (2013.01 - EP); **F02M 63/00** (2013.01 - KR); **F02M 2200/02** (2013.01 - EP); **F02M 2200/9007** (2013.01 - EP)

Citation (applicant)

- EP 0961025 A1 19991201 - WAERTSILAE NSD SCHWEIZ AG [CH]
- EP 0677656 B1 19991222 - CUMMINS ENGINE CO INC [US]

Citation (search report)

- [XYI] WO 0114736 A1 20010301 - CATERPILLAR INC [US]
- [Y] EP 1156209 A2 20011121 - SIEMENS AG [DE]
- [Y] JP S58143161 A 19830825 - ISUZU MOTORS LTD, et al
- [X] JP H03194164 A 19910823 - ISUZU CERAMICS RES INST
- [X] US 5607106 A 19970304 - BENTZ JOSEPH C [US], et al
- [X] JP H0650241 A 19940222 - ISUZU MOTORS LTD

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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

Designated extension state (EPC)

BA ME

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