

Title (en)

A NOZZLE FOR A FUEL VALVE IN A DIESEL ENGINE

Title (de)

DÜSE FÜR EIN KRAFTSTOFFVENTIL IN EINEM DIESELMOTOR

Title (fr)

GICLEUR POUR ROBINET À ESSENCE DANS UN MOTEUR DIESEL

Publication

**EP 2494183 B1 20180110 (EN)**

Application

**EP 10826127 A 20101029**

Priority

- DK PA200901174 A 20091030
- DK 2010050291 W 20101029

Abstract (en)

[origin: WO2011050814A1] A nozzle for a fuel valve (1) for an internal combustion engine, particularly a two-stroke crosshead engine, which nozzle for a fuel valve comprises a valve head (3) with a core portion (4) of an alloyed steel, and an outer facing (5) forming the surface of the nozzle towards a combustion chamber. The outer facing (5) has been formed from particulate starting material of a hot-corrosion-resistant alloy being nickel-based, chromium-based or cobalt based, where said particulate starting material has been united to a coherent layer. At least at the transition zone to the core portion (4) the particles in the particulate material of the outer facing (5) have been deformed into oval or elongate shapes by shear strain caused by forging the outer facing and the core portion, and that the forged outer facing (5) has a density of at least 98.0 %.

IPC 8 full level

**F02M 61/18** (2006.01); **B22F 3/17** (2006.01); **B22F 5/10** (2006.01); **B22F 7/08** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP KR)

**B22F 3/17** (2013.01 - EP KR); **B22F 5/10** (2013.01 - EP); **B22F 7/08** (2013.01 - EP); **F02M 61/166** (2013.01 - EP); **F02M 61/168** (2013.01 - EP); **F02M 61/18** (2013.01 - KR); **F02M 61/1813** (2013.01 - EP); **F02M 61/182** (2013.01 - EP); **F02M 2200/8053** (2013.01 - EP)

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 2011050814 A1 20110505**; CN 102667135 A 20120912; CN 102667135 B 20150617; EP 2494183 A1 20120905; EP 2494183 A4 20170607; EP 2494183 B1 20180110; ES 2661363 T3 20180328; JP 2012510024 A 20120426; JP 5328927 B2 20131030; KR 101388613 B1 20140423; KR 20120074327 A 20120705

DOCDB simple family (application)

**DK 2010050291 W 20101029**; CN 201080048507 A 20101029; EP 10826127 A 20101029; ES 10826127 T 20101029; JP 2011537848 A 20101029; KR 20127013790 A 20101029