

Title (en)  
Nozzle

Title (de)  
Düse

Title (fr)  
Buse

Publication  
**EP 2525077 A1 20121121 (DE)**

Application  
**EP 12003561 A 20120507**

Priority  
CH 8242011 A 20110516

Abstract (en)  
The nozzle has a stud hole or seat hole (1) arranged on a rear side of a nozzle body (5), and a spray hole (2) that leads outward from the stud hole or seat hole. The spray hole in a region of the spray hole inlet (3) exhibits a non-circular cross section and an oval cross section i.e. elliptical cross section. The spray hole in a region of a spray hole outlet (4) exhibits a circular cross section, and the stud hole or seat hole exhibits a groove (6), where the spray hole leads out from the groove. The spray hole is widened by a counter-bore at the spray hole outlet. An independent claim is also included for a method for manufacturing a nozzle.

Abstract (de)  
Die vorliegende Erfindung betrifft eine Düse mit einem Düsenkörper 5, in welchem rückseitig ein Sackloch oder Sitzloch eingebracht ist, wobei von diesem mindestens ein Spritzloch 2 ausgeht, wobei das Spritzloch im Bereich des Spritzlocheintritts 3 einen nicht-runden Querschnitt aufweist. Der Austritt 4 ist bevorzugt kreisförmig.

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

CPC (source: EP US)  
**F02M 61/1833** (2013.01 - EP US); **F02M 61/184** (2013.01 - EP US); **F02M 61/1873** (2013.01 - EP US); **Y10T 29/494** (2015.01 - EP US)

Citation (search report)  
• [XY] WO 03004867 A1 20030116 - BOSCH GMBH ROBERT [DE], et al  
• [XYI] EP 1840368 A2 20071003 - BOSCH GMBH ROBERT [DE]  
• [XY] DE 19843616 A1 20000330 - SIEMENS AG [DE]  
• [XY] EP 0809017 A1 19971126 - STEYR DAIMLER PUCH AG [AT]  
• [X] EP 2264307 A1 20101222 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP]

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

DOCDB simple family (publication)  
**EP 2525077 A1 20121121**; **EP 2525077 B1 20170419**; CH 704964 A1 20121130; US 2012292409 A1 20121122

DOCDB simple family (application)  
**EP 12003561 A 20120507**; CH 8242011 A 20110516; US 201213472881 A 20120516