

Title (en)

Hole-type nozzle with a storage volume for a fuel injection apparatus

Title (de)

Lochdüse mit einem Speicherraum für eine Kraftstoff-Einspritzvorrichtung

Title (fr)

Injecteur à trous avec un volume de retenue pour un dispositif d'injection de carburant

Publication

**EP 1770275 A1 20070404 (DE)**

Application

**EP 06120340 A 20060908**

Priority

DE 102005046669 A 20050929

Abstract (en)

An orifice nozzle (24) has a nozzle body (30) which has a nozzle needle cavity (34) for supply fuel into the nozzle body (30), a storage cavity (94) is provided which is joined hydraulically by at least one nozzle element to the nozzle needle cavity (34). An independent claim is included for a fuel injection device.

IPC 8 full level

**F02M 63/00** (2006.01)

CPC (source: EP)

**F02M 61/10** (2013.01); **F02M 2200/315** (2013.01); **F02M 2200/40** (2013.01)

Citation (search report)

- [X] WO 2004033890 A1 20040422 - BOSCH GMBH ROBERT [DE], et al
- [X] WO 02090755 A1 20021114 - BOSCH GMBH ROBERT [DE], et al
- [X] WO 0246602 A1 20020613 - BOSCH GMBH ROBERT [DE], et al
- [X] FR 2862352 A1 20050520 - RENAULT SAS [FR]

Cited by

EP1921306A3; EP2246552A1; EP2295787A1; US9897058B2; US9279402B2; WO2019072604A1; WO2008017544A1; WO2011012519A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1770275 A1 20070404; EP 1770275 B1 20091223**; AT E453049 T1 20100115; DE 102005046669 A1 20070405;  
DE 502006005720 D1 20100204

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