

Title (en)

DECOUPLING ELEMENT FOR A FUEL INJECTION DEVICE

Title (de)

ENTKOPPLUNGSELEMENT FÜR EINE BRENNSTOFFEINSPRITZVORRICHTUNG

Title (fr)

ÉLÉMENT DE DÉSACCOUPLEMENT POUR DISPOSITIF D'INJECTION DE CARBURANT

Publication

**EP 3234345 A1 20171025 (DE)**

Application

**EP 15781373 A 20151019**

Priority

- DE 102014225988 A 20141216
- EP 2015074144 W 20151019

Abstract (en)

[origin: WO2016096200A1] The invention relates to a decoupling element for a fuel injection device, said decoupling element being characterized in that it has a low-noise and pivotable design. The fuel injection device comprises at least one fuel injection valve (1) and a receiving bore (20) in a cylinder head (9) for the fuel injection valve (1) as well as the decoupling element (25) between a valve housing (22) of the fuel injection valve (1) and a wall of the receiving bore (20). The decoupling element (25) has an annular design, in particular in the form of a closed ring, which has a lower end surface (26) that rests on a shoulder (23) of the receiving bore (20) and an upper end face (27) which extends in a conically rising manner from radially outwards to radially inwards and has a bearing contact with a spherically curved shoulder face (21) of the valve housing (22) of the fuel injection valve (1). The fuel injection device is especially suitable for direct injection of fuel into a combustion chamber of a mixture-compressing, spark-ignited internal combustion engine.

IPC 8 full level

**F02M 61/14** (2006.01); **F02M 61/16** (2006.01)

CPC (source: CN EP KR US)

**F02D 41/3845** (2013.01 - US); **F02M 55/04** (2013.01 - US); **F02M 61/14** (2013.01 - CN EP KR US); **F02M 61/166** (2013.01 - CN EP KR US);  
**F02M 61/168** (2013.01 - CN EP KR US); **F02M 63/026** (2013.01 - US); **F02M 55/004** (2013.01 - US); **F02M 69/38** (2013.01 - US);  
**F02M 2200/09** (2013.01 - CN EP KR US); **F02M 2200/50** (2013.01 - US)

Citation (search report)

See references of WO 2016096200A1

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)

**DE 102014225988 A1 20160616**; CN 107110099 A 20170829; CN 107110099 B 20200818; EP 3234345 A1 20171025;  
EP 3234345 B1 20200429; JP 2018500499 A 20180111; JP 6612347 B2 20191127; KR 102447583 B1 20220928; KR 20170093851 A 20170816;  
US 10641224 B2 20200505; US 2017328325 A1 20171116; WO 2016096200 A1 20160623

DOCDB simple family (application)

**DE 102014225988 A 20141216**; CN 201580068568 A 20151019; EP 15781373 A 20151019; EP 2015074144 W 20151019;  
JP 2017532064 A 20151019; KR 20177016421 A 20151019; US 201515526844 A 20151019