

Title (en)

DEVICE FOR INJECTING WATER INTO A COMBUSTION CHAMBER OR INTO AN INTAKE TRACT OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VORRICHTUNG ZUM EINSPRITZEN VON WASSER IN EINEN BRENNRAUM ODER IN EINEN ANSAUGTRAKT EINES VERBRENNUNGSMOTORS

Title (fr)

DISPOSITIF D'INJECTION D'EAU DANS UNE CHAMBRE DE COMBUSTION OU DANS UN CONDUIT D'ASPIRATION D'UN MOTEUR À COMBUSTION INTERNE

Publication

**EP 3887664 A1 20211006 (DE)**

Application

**EP 19805603 A 20191113**

Priority

- DE 102018220394 A 20181128
- EP 2019081153 W 20191113

Abstract (en)

[origin: WO2020108994A1] The invention relates to a device for injecting water into a combustion chamber or into an intake tract of an internal combustion engine, comprising a rail (1) and at least one injection valve (2) connected to the rail (1), the connection being produced by means of a rail cup (3), which surrounds the injection valve (2) at the rail-side end of the injection valve. According to the invention, the injection valve (2) has a feed channel (4) open toward the rail (1), in which feed channel at least some portions of an insert (5) are received in order to reduce the feed cross-section.

IPC 8 full level

**F02M 25/022** (2006.01); **F02M 25/028** (2006.01); **F02M 25/03** (2006.01); **F02M 37/00** (2006.01); **F02M 55/00** (2006.01); **F02M 55/02** (2006.01); **F02M 69/46** (2006.01); **F16L 41/08** (2006.01); **F16L 55/027** (2006.01)

CPC (source: EP KR US)

**F02B 47/02** (2013.01 - US); **F02M 25/0221** (2013.01 - EP KR); **F02M 25/0224** (2013.01 - US); **F02M 25/028** (2013.01 - EP KR US); **F02M 25/03** (2013.01 - EP KR US); **F02M 37/0017** (2013.01 - KR); **F02M 55/004** (2013.01 - EP KR); **F02M 55/02** (2013.01 - EP KR); **F02M 69/465** (2013.01 - KR); **F16L 41/08** (2013.01 - EP); **F16L 41/088** (2013.01 - EP KR US); **F16L 55/027** (2013.01 - EP KR US); **F02M 37/0017** (2013.01 - EP); **F02M 69/465** (2013.01 - EP); **Y02T 10/12** (2013.01 - EP KR)

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 102018220394 A1 20200528**; CN 113167195 A 20210723; EP 3887664 A1 20211006; KR 20210094546 A 20210729; US 2022003156 A1 20220106; WO 2020108994 A1 20200604

DOCDB simple family (application)

**DE 102018220394 A 20181128**; CN 201980078858 A 20191113; EP 19805603 A 20191113; EP 2019081153 W 20191113; KR 20217016006 A 20191113; US 201917294975 A 20191113