

Title (en)
ARRANGEMENT WITH A FUEL DISTRIBUTER AND MULTIPLE FUEL INJECTION VALVES

Title (de)
ANORDNUNG MIT EINEM BRENNSTOFFVERTEILER UND MEHREREN BRENNSTOFFEINSPRITZVENTILEN

Title (fr)
ENSEMBLE COMPRENANT UNE RAMPE DE DISTRIBUTION DE CARBURANT ET PLUSIEURS SOUPAPES D'INJECTION DE CARBURANT

Publication
EP 2841761 A1 20150304 (DE)

Application
EP 13715934 A 20130402

Priority

- DE 102012206890 A 20120426
- EP 2013056850 W 20130402

Abstract (en)
[origin: WO2013160068A1] The invention relates to an arrangement (1) which is used in particular as a fuel injection system for high-pressure fuel injection in internal combustion engines, comprising a fuel distributor (2) and multiple fuel injection valves (3, 4). Each of the fuel injection valves (3, 4) is arranged on a cup (9, 10) of the fuel distributor (2). At least one of the fuel injection valves (3, 4) is secured to the corresponding cup (9) by means of at least one retaining element (30). A bearing surface (19) is provided on the outer face (18) of the cup (9). A supporting surface (17) is provided on the lower face (16) of the cup (9). Furthermore, the retaining element (30) is designed as a retaining bracket (30). A bearing surface (21) is provided on an outer face (20) of the fuel injection valve (3). The retaining bracket (30) engages behind the bearing surface (19) of the cup (9) and behind the bearing surface (21) of the fuel injection valve (3). Furthermore, the retaining bracket (30) urges the fuel injection valve (3) against the supporting surface (17). Composite damping elements (11, 13) are arranged between the fuel injection valve (3) and the supporting surface (17) of the cup (9) and between the bearing surface (21) of the fuel injection valve (3) and the retaining bracket (30). It is thus possible to decouple the fuel injection valves (3, 4) from the fuel distributor (2), whereby noise emissions are reduced.

IPC 8 full level
F02M 61/14 (2006.01)

CPC (source: EP US)
F02M 55/005 (2013.01 - US); **F02M 55/025** (2013.01 - US); **F02M 55/04** (2013.01 - US); **F02M 61/14** (2013.01 - EP US); **F02M 2200/09** (2013.01 - EP US); **F02M 2200/8023** (2013.01 - EP US); **F02M 2200/803** (2013.01 - EP US); **F02M 2200/853** (2013.01 - EP US); **F02M 2200/855** (2013.01 - EP US)

Citation (search report)
See references of WO 2013160068A1

Cited by
WO2019072683A1

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)
WO 2013160068 A1 20131031; CN 104246205 A 20141224; CN 104246205 B 20170620; DE 102012206890 A1 20131031; EP 2841761 A1 20150304; EP 2841761 B1 20160608; KR 102074651 B1 20200302; KR 20150003757 A 20150109; US 10184437 B2 20190122; US 2015083082 A1 20150326

DOCDB simple family (application)
EP 2013056850 W 20130402; CN 201380021396 A 20130402; DE 102012206890 A 20120426; EP 13715934 A 20130402; KR 20147029736 A 20130402; US 201314396607 A 20130402