

Title (en)
FUEL INJECTOR

Title (de)
KRAFTSTOFFINJEKTOR

Title (fr)
INJECTEUR DE CARBURANT

Publication
EP 2855916 A1 20150408 (DE)

Application
EP 13719751 A 20130405

Priority
• DE 102012209229 A 20120531
• EP 2013057249 W 20130405

Abstract (en)
[origin: WO2013178391A1] The invention relates to a fuel injector having an electromagnet 2 which contains a magnet core 6 and a coil 7 and which further has an armature 9 that is guided on an armature pin 8. The armature pin 8 is guided in a guide sleeve 11 which projects into the electromagnet 2. The fuel injector further has an injector body 4 with at least one injection opening which is introduced into the injector body 4 and which is controlled by an injector needle 5. The aim of the invention is to provide a fuel injector which is functionally improved with respect to the switching times of the fuel injector and the forces that can be generated in the fuel injector while simultaneously simplifying a guide sleeve for an armature pin. This is achieved in that the guide sleeve 11 is integrated into the magnet core 6 and is connected to the magnet core 6 in a formfitting or bonded manner. For this purpose, the guide sleeve 11 has widened sections 16 at both ends, said widened sections fixing the guide sleeve 11 in the magnet core 6.

IPC 8 full level
F02M 51/06 (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 51/0614 (2013.01 - EP US); **F02M 61/12** (2013.01 - EP US); **F02M 61/166** (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US); **F02M 63/0017** (2013.01 - EP US); **F02M 63/0019** (2013.01 - EP US); **F02M 63/0022** (2013.01 - EP US); **F02M 63/022** (2013.01 - EP US); **F02M 2200/08** (2013.01 - EP US); **F02M 2200/8046** (2013.01 - EP US); **F02M 2200/9007** (2013.01 - EP US); **F02M 2200/9069** (2013.01 - EP US); **F02M 2200/9076** (2013.01 - EP US)

Citation (search report)
See references of WO 2013178391A1

Citation (examination)
• DE 3933758 A1 19910418 - BOSCH GMBH ROBERT [DE]
• EP 2752858 A2 20140709 - BOSCH GMBH ROBERT [DE]
• WO 2015143107 A1 20150924 - GM GLOBAL TECH OPERATIONS INC [US]
• US 2010005646 A1 20100114 - MANUBOLU AVINASH R [US], et al

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 2013178391 A1 20131205; DE 102012209229 A1 20131205; EP 2855916 A1 20150408; US 2015136879 A1 20150521

DOCDB simple family (application)
EP 2013057249 W 20130405; DE 102012209229 A 20120531; EP 13719751 A 20130405; US 201314405722 A 20130405