

Title (en)
Low pressure circuit for a fuel injection system

Title (de)
Niederdruckkreislauf für ein Kraftstoffeinspritzsystem

Title (fr)
Circuit basse pression pour un système d'injection de carburant

Publication
EP 2708728 A3 20161019 (DE)

Application
EP 13183342 A 20130906

Priority
AT 10112012 A 20120917

Abstract (en)
[origin: EP2708728A2] The circuit has a mechanical low pressure-prefeed pump (2) sucking fuel from a fuel tank (4), where the fuel is supplied to a low pressure region of a high pressure pump (1) via a fuel line. A dosing unit (10) is arranged in the region. A zero-delivery line with a zero-delivery throttle (14) is branched downstream of the dosing unit. An overflow line with an overflow valve (6) is branched upstream of the dosing unit. A non-return valve (16) is arranged in the zero-delivery line for selective opening or blocking of the zero-delivery line, and switched between open and closed positions. The mechanical low pressure-prefeed pump is an internal gear pump.

IPC 8 full level
F02M 37/00 (2006.01); **F02M 41/16** (2006.01)

CPC (source: EP US)
F02M 37/0029 (2013.01 - EP US); **F02M 37/0047** (2013.01 - EP US); **F02M 41/16** (2013.01 - US)

Citation (search report)

- [XY] DE 102006037174 A1 20080214 - BOSCH GMBH ROBERT [DE]
- [YA] WO 2009128176 A1 20091022 - BOSCH CORP [JP], et al
- [A] DE 19742180 A1 19990325 - SIEMENS AG [DE]

Cited by
CN110892145A; CN107288787A; ITUB20160780A1; CN108150324A; AT522135A1; AT522135B1; US10954904B2; WO2019006485A1

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)
EP 2708728 A2 20140319; EP 2708728 A3 20161019; AT 513154 A4 20140215; AT 513154 B1 20140215; US 2014076281 A1 20140320

DOCDB simple family (application)
EP 13183342 A 20130906; AT 10112012 A 20120917; US 201314028094 A 20130916