

Title (en)

MIXTURE FORMATION DEVICE FOR A GAS ENGINE AND GAS ENGINE

Title (de)

GEMISCHBILDUNGSVORRICHTUNG FÜR EINEN GASMOTOR UND GASMOTOR

Title (fr)

DISPOSITIF DE FORMATION DE MÉLANGE POUR UN MOTEUR À GAZ ET MOTEUR À GAZ

Publication

EP 3551871 A1 20191016 (DE)

Application

EP 17804562 A 20171128

Priority

- DE 102016123826 A 20161208
- EP 2017080634 W 20171128

Abstract (en)

[origin: WO2018104107A1] The invention relates to a mixture formation device for an internal combustion engine operated with a burnable gas, preferably compressed natural gas CNG. The mixture formation device comprises a combination of a quantity regulator, a gas mixer, a flow-guiding element for pressure recovery, and a connection possibility for exhaust gas recirculation of the internal combustion engine. The mixture formation device according to the invention can empty a gas tank to a comparatively low pressure of approx. 2 bar, an excellent mixture formation being achieved over the entire range of speed and load range of the internal combustion engine. According to the invention, such a mixture formation device can reduce production costs as well as space requirements compared to known solutions. The invention also relates to an internal combustion engine operated with a burnable gas, particularly compressed natural gas (CNG), comprising such a mixture formation device in the intake tract thereof.

IPC 8 full level

F02M 21/02 (2006.01); **F02D 9/12** (2006.01); **F02D 19/02** (2006.01); **F02M 9/127** (2006.01); **F02M 9/133** (2006.01); **F02M 21/04** (2006.01);
F02M 26/19 (2016.01); **F02M 26/51** (2016.01); **F02M 35/10** (2006.01)

CPC (source: EP RU US)

F02D 19/023 (2013.01 - US); **F02M 21/0278** (2013.01 - EP RU US); **F02M 21/0281** (2013.01 - EP RU); **F02M 21/042** (2013.01 - EP RU);
F02M 21/047 (2013.01 - EP RU); **F02M 26/19** (2016.02 - EP RU); **F02M 26/51** (2016.02 - EP RU); **F02M 35/10222** (2013.01 - EP RU);
B01F 2101/503 (2022.01 - US); **F02D 19/023** (2013.01 - EP); **F02M 21/0281** (2013.01 - US); **F02M 21/047** (2013.01 - US);
F02M 26/19 (2016.02 - US); **F02M 35/10222** (2013.01 - US); **Y02T 10/30** (2013.01 - EP)

Citation (search report)

See references of WO 2018104107A1

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 2018104107 A1 20180614; CN 110023613 A 20190716; CN 110023613 B 20220301; DE 102016123826 A1 20180614;
EP 3551871 A1 20191016; RU 2726984 C1 20200717; US 11181051 B2 20211123; US 2020032722 A1 20200130

DOCDB simple family (application)

EP 2017080634 W 20171128; CN 201780075943 A 20171128; DE 102016123826 A 20161208; EP 17804562 A 20171128;
RU 2019117551 A 20171128; US 201716467608 A 20171128