

Title (en)  
INTERNAL COMBUSTION ENGINE WITH IMPROVED FUEL TANK CLEANING

Title (de)  
BRENNKRAFTMASCHINE MIT VERBESSERTER TANKREINIGUNG

Title (fr)  
MOTEUR A COMBUSTION INTERNE AVEC NETTOYAGE DE RESERVOIR DE CARBURANT AMÉLIORÉE

Publication  
**EP 2652306 A1 20131023 (DE)**

Application  
**EP 11796991 A 20111212**

Priority  
• DE 102010054668 A 20101215  
• EP 2011072464 W 20111212

Abstract (en)  
[origin: WO2012080177A1] Described is an internal combustion engine having a fuel tank, having a fuel vapour store for storing fuel vapours which escape from the fuel tank, having a connecting line between the fuel vapour store and an air intake tract of the internal combustion engine in order to conduct fuel vapours from the fuel vapour store into the air intake tract during a regeneration phase, having a valve arranged in the connecting line, having an aeration line for the fuel vapour store, and having a valve unit, which is arranged in the aeration line, for controlling the aeration of the fuel vapour store. In the aeration line for the fuel vapour store there is arranged a purge air pump which is integrated into the valve unit for controlling the aeration of the fuel vapour store. In this way, particularly effective purging or regeneration of the fuel vapour store is attained even when no negative pressure or only a low negative pressure is provided by the air intake tract.

IPC 8 full level  
**F02M 25/08** (2006.01)

CPC (source: EP KR US)  
**F02M 25/08** (2013.01 - KR); **F02M 25/0818** (2013.01 - EP US); **F02M 25/0836** (2013.01 - EP US); **F02M 25/0872** (2013.01 - EP US);  
**F02M 25/089** (2013.01 - EP US); **F02M 2025/0845** (2013.01 - EP US)

Citation (search report)  
See references of WO 2012080177A1

Cited by  
DE102014224750A1; DE102014224750B4; WO2015193083A1

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

DOCDB simple family (publication)  
**WO 2012080177 A1 20120621**; CA 2820400 A1 20120621; CA 2820400 C 20171017; CN 103261650 A 20130821; CN 103261650 B 20150916; DE 102010054668 A1 20120621; EP 2652306 A1 20131023; EP 2652306 B1 20150318; ES 2539358 T3 20150630; JP 2013545933 A 20131226; KR 20140040080 A 20140402; MX 2013006800 A 20130729; US 2013255645 A1 20131003

DOCDB simple family (application)  
**EP 2011072464 W 20111212**; CA 2820400 A 20111212; CN 201180060428 A 20111212; DE 102010054668 A 20101215; EP 11796991 A 20111212; ES 11796991 T 20111212; JP 2013543688 A 20111212; KR 20137018195 A 20111212; MX 2013006800 A 20111212; US 201113994572 A 20111212