

Title (en)  
VEHICLE WITH AN INTERNAL COMBUSTION ENGINE FOR ETHANOL-CONTAINING FUELS, AND AN ENGINE-INDEPENDENT AIR HEATING SYSTEM

Title (de)  
FAHRZEUG MIT EINEM VERBRENNUNGSMOTOR FÜR ETHANOL ENTHALTENDE KRAFTSTOFFE UND EINER STANDHEIZUNG

Title (fr)  
VÉHICULE DOTÉ D'UN MOTEUR À COMBUSTION INTERNE POUR DES CARBURANTS CONTENANT DE L'ÉTHANOL ET D'UN CHAUFFAGE AUTONOME

Publication  
**EP 2100024 A1 20090916 (DE)**

Application  
**EP 07847602 A 20071130**

Priority  
• EP 2007063086 W 20071130  
• DE 102006057434 A 20061206

Abstract (en)  
[origin: WO2008068203A1] The present invention relates to a vehicle, comprising an internal combustion engine (1) which is designed for combusting an ethanol-containing fuel, and an engine-independent air heating system (20), wherein an exhaust passage (23) of the engine-independent air heating system (20) is disposed adjacent to a suction pipe (2) of the internal combustion engine (1) in order to heat the air in the suction pipe (2), and/or wherein the exhaust passage (23) of the engine-independent air heating system (20) is disposed adjacent to a fuel supply line (7) of the internal combustion engine in order to heat fuel in the fuel supply line (7), and/or wherein a connecting element (24) is disposed between the exhaust passage (23) of the engine-independent air heating system (20) and the suction pipe (2) in order to pass the exhaust gas of the engine-independent air heating system (20) completely or partly into the suction pipe (2).

IPC 8 full level  
**F02M 31/087** (2006.01); **F02D 19/08** (2006.01); **F02N 19/04** (2010.01)

CPC (source: EP US)  
**F02B 43/10** (2013.01 - EP US); **F02D 19/084** (2013.01 - EP US); **F02M 31/087** (2013.01 - EP US); **F02M 31/163** (2013.01 - EP US);  
**F02N 19/08** (2013.01 - EP US); **F01P 2037/02** (2013.01 - EP US); **F01P 2060/18** (2013.01 - EP US); **F02D 2200/0414** (2013.01 - EP US);  
**F02N 19/04** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US); **Y02T 10/30** (2013.01 - EP US)

Citation (search report)  
See references of WO 2008068203A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**DE 102006057434 A1 20080612**; BR PI0719680 A2 20131224; EP 2100024 A1 20090916; US 2011146633 A1 20110623;  
US 8371274 B2 20130212; WO 2008068203 A1 20080612

DOCDB simple family (application)  
**DE 102006057434 A 20061206**; BR PI0719680 A 20071130; EP 07847602 A 20071130; EP 2007063086 W 20071130; US 51803207 A 20071130