

Title (en)

EXHAUST SYSTEM WITH AN EXHAUST GAS TREATMENT UNIT AND A HEAT EXCHANGER IN AN EXHAUST RECYCLE LINE

Title (de)

ABGASANLAGE MIT EINER ABGASBEHANDLUNGSEINHEIT UND EINEM WÄRMETAUSCHER IN EINER ABGASRÜCKFÜHRLEITUNG

Title (fr)

SYSTEME D'ECHAPPEMENT COMPRENANT UNE UNITE DE TRAITEMENT DE GAZ D'ECHAPPEMENT ET UN ECHANGEUR THERMIQUE DANS UNE CONDUITE DE RETOUR DE GAZ D'ECHAPPEMENT

Publication

**EP 1861608 B1 20130515 (DE)**

Application

**EP 06723685 A 20060324**

Priority

- EP 2006002702 W 20060324
- DE 102005014264 A 20050324

Abstract (en)

[origin: WO2006100090A1] The invention relates to an exhaust system (1) on an internal combustion engine (2), comprising an inlet system (3) and an exhaust outlet (4), whereby the exhaust outlet (4) and the inlet system (3) are connected by means of an exhaust recycle line (5) in which an exhaust treatment unit (6) and a heat exchanger (7) are embodied. The heat exchanger (7) has a first back pressure and the exhaust treatment unit (6) has a second back pressure, smaller than the first back pressure, characterised in that the exhaust treatment unit (6) is embodied at such a first separation (8) from the heat exchanger (7) in the direction of flow that, during operation, a gas flow (14) entering the exhaust treatment unit (6) is equilibrated. Said exhaust system permits an advantageous embodiment of a heat exchanger (7) and an exhaust treatment unit (6), such as for example a honeycomb body in the exhaust recycle line (5), whereby both the heat exchanger (7) and the exhaust treatment unit (6) can have a smaller embodiment than in conventional systems. The above reduces the costs considerably on equipping such a system.

IPC 8 full level

**F02M 25/07** (2006.01); **F01N 3/28** (2006.01)

CPC (source: EP KR US)

**F01N 3/28** (2013.01 - KR); **F01N 3/2889** (2013.01 - EP US); **F01N 3/2892** (2013.01 - EP US); **F01N 13/0097** (2014.06 - EP US);  
**F02M 26/28** (2016.02 - EP US); **F02M 26/35** (2016.02 - EP US); **F01N 2240/02** (2013.01 - EP US)

Citation (examination)

US 2003213230 A1 20031120 - YAHATA SHIGETO [JP], et al

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 NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 102005014264 A1 20060928**; CN 101146989 A 20080319; CN 101146989 B 20100929; EP 1861608 A1 20071205;  
EP 1861608 B1 20130515; JP 2008534835 A 20080828; KR 100901548 B1 20090608; KR 20070120116 A 20071221;  
PL 1861608 T3 20140731; RU 2007139107 A 20090520; RU 2410561 C2 20110127; US 2008028747 A1 20080207; US 7490595 B2 20090217;  
WO 2006100090 A1 20060928

DOCDB simple family (application)

**DE 102005014264 A 20050324**; CN 200680009606 A 20060324; EP 06723685 A 20060324; EP 2006002702 W 20060324;  
JP 2008502335 A 20060324; KR 20077022310 A 20070928; PL 06723685 T 20060324; RU 2007139107 A 20060324; US 85994207 A 20070924