

Title (en)

HIGHLY EFFECTIVE NON-CLOGGING FILTER UNIT

Title (de)

VERSTOPFUNGSFREIES FILTERAGGREGAT MIT HOHEM WIRKUNGSGRAD

Title (fr)

GROUPE DE FILTRATION SANS OBSTRUCTION A RENDEMENT ELEVE

Publication

EP 1902202 A1 20080326 (DE)

Application

EP 06753509 A 20060506

Priority

- EP 2006004253 W 20060506
- DE 102005023518 A 20050521

Abstract (en)

[origin: WO2006125516A1] According to the invention, the exhaust gas of a diesel engine is directed via at least two serially arranged filter units (I, II) in order to eliminate soot from the exhaust gas. Each filter unit comprises a filter element with a parallel connection (4) which the exhaust gas can penetrate without being filtered. The parallel connections (4, 5) of two successive filter elements are joined to each other by means of a direct, non-clogging flow path. The parallel connections (4, 5) of the successive filter elements (2, 3) are flowingly disposed relative to each other such that the exhaust gas is largely prevented from penetrating directly from one parallel connection into the parallel connection of the successive filter unit, thus ensuring a great total filter efficiency while the counterpressure of the exhaust gas is comparable to conventional filter systems in spite of the parallel connections (4, 5) in the individual filter units. The parallel connections in the filter units ensure emergency operation at a still admissible counterpressure of the exhaust gas in case active or passive filter regeneration fails.

IPC 8 full level

F01N 3/031 (2006.01); **F01N 3/022** (2006.01); **F01N 3/033** (2006.01); **F01N 3/035** (2006.01); **F01N 3/08** (2006.01); **F01N 13/02** (2010.01)

CPC (source: EP)

B01D 46/62 (2022.01); **F01N 3/022** (2013.01); **F01N 3/031** (2013.01); **F01N 3/033** (2013.01); **F01N 3/035** (2013.01); **F01N 3/0878** (2013.01);
F01N 13/0093 (2014.06); **F01N 13/0097** (2014.06); **F01N 13/017** (2014.06); **B01D 2273/10** (2013.01); **B01D 2279/30** (2013.01);
F01N 2240/20 (2013.01); **F01N 2340/02** (2013.01)

Citation (search report)

See references of WO 2006125516A1

Citation (examination)

- JP S6062618 A 19850410 - MITSUBISHI ELECTRIC CORP
- EP 1304455 A1 20030423 - OPEL ADAM AG [DE]
- EP 0879938 A2 19981125 - TOYOTA MOTOR CO LTD [JP]
- US 2004116276 A1 20040617 - YEZERETS ALEKSEY [US], et al

Cited by

GB2471001A; GB2471001B

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 102005023518 A1 20061123; DE 102005023518 B4 20070906; EP 1902202 A1 20080326; JP 2008540933 A 20081120;
WO 2006125516 A1 20061130

DOCDB simple family (application)

DE 102005023518 A 20050521; EP 06753509 A 20060506; EP 2006004253 W 20060506; JP 2008512718 A 20060506