Patent report exhaust

Exhaust systems

275 patent documents
July 2013

EXHAUST/1307

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TI **Double-flow exhaust system for combustion engine in motor car, has delay device designed to produce running time difference of exhaust gas when exhaust gas of engine flows between exhaust lines through system**

PI **DE 102011055266 A1** 16.05. 2013

AI 102011055266 11.11.2011

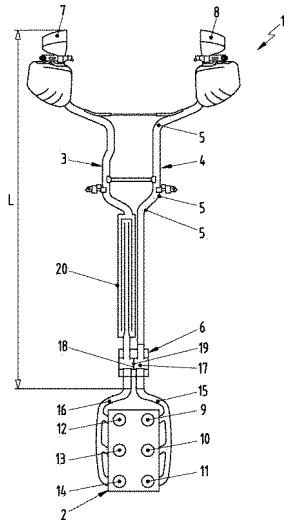
PRI DE 20111111 11.11.2011
102011055266

IC **F01N013/04** F01N001/06 G10K011/175

PA Dr. Ing. h.c. F. Porsche Aktiengesellschaft, 70435 Stuttgart, DE

IN Winkel, Joerg, 71287 Weissach, DE

AB The system (1) has first and second exhaust lines (3, 4) fluidically and operatively connected with each other by a connection section (17). The second exhaust line differs from the first exhaust line and comprises an equaled tube length as the first exhaust line. One of the exhaust lines has a delay device (20) i.e. interference damper, arranged downstream to the connection section and designed to produce a running time difference of exhaust gas when exhaust gas of a combustion engine (2) flows between the exhaust lines through the system.



TI

PI **DE 102011056399 A1** 02.05. 2013

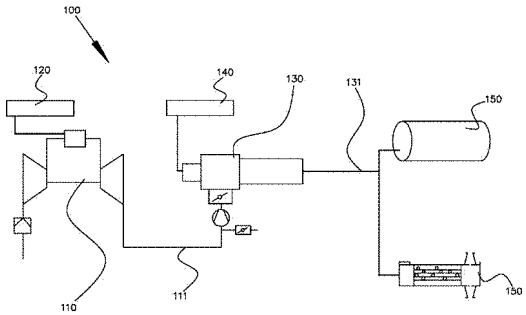
AI 102011056399 14.12.2011

PRI DE 20111102 202011107312.6

IC **F02C006/18** F01N005/02 F01K007/00 F26B023/02

PA Gammel Engineering GmbH, 93326 Abensberg, DE

IN Oblinger, Maximilian, 93326 Abensberg, DE



AB

TI **Method for heating catalytic converter of e.g. hybrid vehicle, involves opening clutch during combustion engine operation so that engine does not drive vehicle, and bringing engine on objective rotation speed after closing clutch**

PI **DE 102011085260 A1** 02.05. 2013

AI 102011085260 26.10.2011

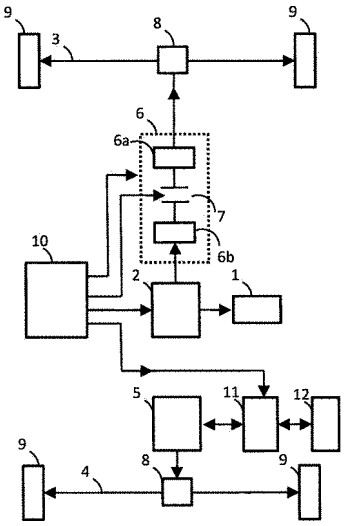
PRI DE 20111026 26.10.2011
102011085260

IC **B60W020/00** B60W010/02 B60W010/06 B60W010/08
F01N003/18

PA Bayerische Motoren Werke Aktiengesellschaft, 80809 Muenchen, DE

IN Etzel, Michael, 82140 Olching, DE; Thum, Stefan, 82152 Planegg, DE; Mueller, Fabian, 80798 Muenchen, DE; Marschall, Tilo, 81379 Muenchen, DE

AB The method involves driving a vehicle with a cold start of the vehicle by operating an electric machine (5) without operating a combustion engine (2). An objective rotation speed is determined in dependence of velocity information characteristic for speed of the vehicle. The combustion engine is started for heating the catalytic converter. A clutch (7) is opened for heating of the catalytic converter during operation of the combustion engine so that the combustion engine does not drive the vehicle. The combustion engine is brought on objective rotation speed after closing the clutch. An independent claim is included for hybrid vehicle.



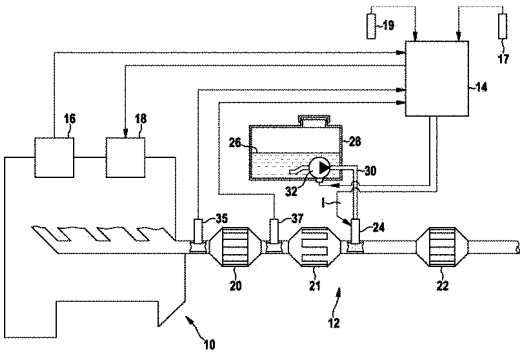
TI **Method for heating exhaust gas after-treatment system in motor car, involves streaming air/fuel mixture into after-treatment exhaust gas system by activity, and triggering ignition of ignition components as activity of fuel**

PI DE 102011085281 A1 02.05. 2013
AI 102011085281 27.10.2011
PRI DE 20111027 27.10.2011
102011085281
IC **F01N009/00** F02D041/12 F02M025/08
PA Bayerische Motoren Werke Aktiengesellschaft, 80809 Muenchen, DE
IN Bourdon, Klaus, 85276 Hettenshausen, DE
AB The method involves introducing fuel into a combustion chamber during a boost phase of a combustion engine. An air/fuel mixture is flown into an exhaust gas after-treatment system by an activity. Ignition of ignition components, injected into the combustion chamber, is triggered as the activity of the fuel. Small amount of fuel is injected into the combustion chamber so that no inflammation or only a small inflammation is taken place and an air fuel ratio is adjusted, where the air fuel ratio is larger than two.

1. Verfahren zum Aufheizen von Abgasnachbehandlungssystemen in Kraftfahrzeugen mit einer fremdgezündeten Brennkraftmaschine, wobei zumindest während einer Schubphase der Brennkraftmaschine in mindestens einen Brennraum Kraftstoff eingebracht wird und durch entsprechende Maßnahmen sichergestellt wird, dass das aus dem Kraftstoff und der Luft gebildete Kraftstoff-Luftgemisch zumindest nahezu ungezündet in das Abgasnachbehandlungssystem einströmt, **dadurch gekennzeichnet**, dass als entsprechend erste Maßnahme der Kraftstoff erst nach einer Zündung der dem Brennraum zugeordneten Zündkomponente in den Brennraum eingespritzt wird.

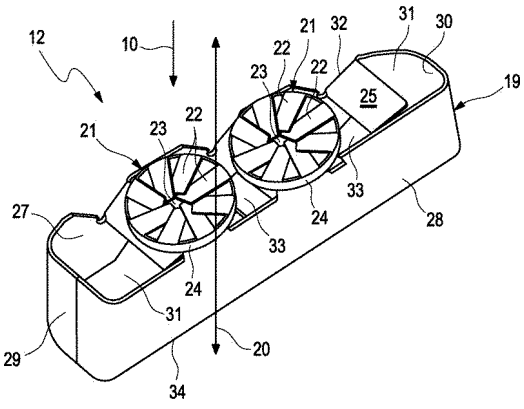
TI **Method for determining estimated value of temperature for location in exhaust gas system of internal combustion engine, involves determining estimated value of temperature for location for future time point**

PI DE 102011085507 A1 02.05. 2013
AI 102011085507 31.10.2011
PRI DE 20111031 31.10.2011
102011085507
IC **G01K007/42** G01K013/02 F01N011/00 G01M015/00
PA Robert Bosch GmbH, 70469 Stuttgart, DE
IN Fritsch, Andreas, 71332 Waiblingen, DE; Holzeder, Andreas, 86441 Zusmarshausen, DE
AB The method involves determining the estimated value of the temperature for the location for a future time point. The estimated value is determined as a function of a value of the temperature for the location to a current point of time, a temporal distance of the future time point from the current time point, characteristics of exhaust gas, an exhaust gas mass flow and characteristics of a component. The temperature prevailing on the location reacts to the changes of the temperature or the exhaust gas mass flow with the delay. An independent claim is included for a control device for executing the method.



TI **Mixing- and evaporation device for use in selective catalytic reduction-catalytic converter for exhaust system of internal combustion engine, particularly of motor vehicle, has outer support body**

PI DE 102011085941 A1 08.05. 2013
AI 102011085941 08.11.2011
PRI DE 20111108 08.11.2011
102011085941
IC **F01N003/10** F01N003/36
PA J. Eberspaecher GmbH & Co. KG, 73730 Esslingen, DE
IN Leicht, Sebastian, 72406 Bisingen, DE; Neumann, Felix, 73732 Esslingen, DE; Arlt, Benjamin, 73773 Aichwald, DE; Semenov, Oleksandr, 73207 P ...
AB The mixing- and evaporation device (12) has an outer support body, which encloses a flat flow-through cross section of the device in a circumferential direction that runs transverse to the axial direction (20) of the device. Two inner support bodies are arranged next to one another within the outer support body and enclose a flow-through partial cross section of the device in the circumferential direction. Independent claims are included for the following: (1) an exhaust system with an injector for an internal combustion engine; and (2) a selective catalytic reduction-catalytic converter with a housing.



TI **SCR CATALYST SYSTEM AND METHOD FOR THE OPERATION THEREOF**

PI **DE 102011085952 A1** 08.05. 2013

AI 102011085952 08.11.2011

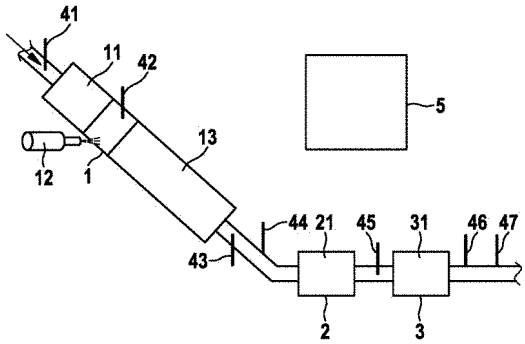
PRI DE 20111108 08.11.2011
102011085952

IC **F01N003/10** F01N003/035

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Fritsch, Andreas, 71332 Waiblingen, DE; Holzeder, Andreas, 86441 Zusmarshausen, DE

AB [US 2013115150 A1] A SCR catalyst system, comprising a first SCR catalyst (1) and a second SCR catalyst (2) which is disposed in the exhaust gas tract downstream of the first SCR catalyst (1). At least one metering device (12) for metering in a reducing agent solution is disposed in the exhaust gas tract upstream of a first SCR catalysis element (13) of said first SCR catalyst (1). The SCR catalyst system does not require a device for metering a reducing agent solution into a second SCR catalysis element (21) of the second SCR catalyst (2).



TI **Conveying module for conveying aqueous urea solution into exhaust gas aftertreatment device in vehicle, has hydraulic terminal branching between filter unit and protecting filter in delivery line, and non-return valve arranged at terminal**

PI **DE 102011086022 A1** 16.05. 2013

AI 102011086022 09.11.2011

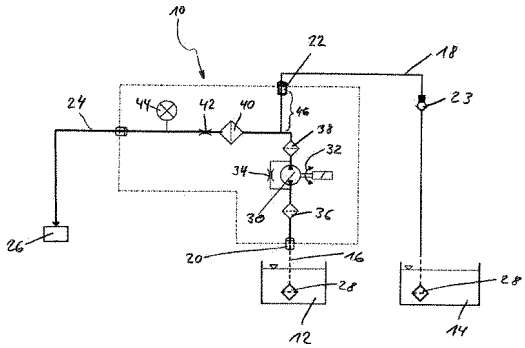
PRI DE 20111109 09.11.2011
102011086022

IC **F01N003/10**

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Braun, Jochen, 71296 Heimsheim, DE

AB The module (10) has a pumping device (30) whose output is attached with a dosing module (26) over a delivery line (24), where the dosing module is provided for proportioning a liquid reducing agent. A hydraulic terminal (22) branches between a filter unit (40) i.e. fine filter, and a protecting filter (38) in the delivery line. A refilling tank (14) for liquid reducing agent is attached at the hydraulic terminal over another delivery line (18). A non-return valve (23) is arranged at the hydraulic terminal in the delivery line to the refilling tank.



TI **Method for operating resistive sensor in exhaust duct of internal combustion engine e.g. petrol engine, involves determining dew point end in exhaust duct from measured change in conductivity of resistive sensor**

PI **DE 102011086148 A1** 16.05. 2013

AI 102011086148 11.11.2011

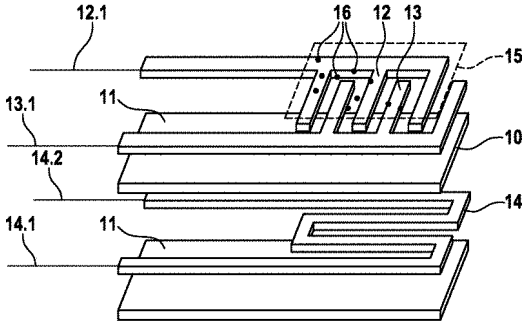
PRI DE 20111111 11.11.2011
102011086148

IC **F01N011/00** F02D041/00 G01N027/04

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Wendt, Hauke, 71254 Ditzingen, DE

AB The method involves configuring resistive sensor having a cross-sensitivity with respect to a water drop entry (50), resulting in a change in the sensor signal. A dew point end in an exhaust duct (30) is determined from a measured change in conductivity of the resistive sensor. The saturated or unsaturated water vapor atmosphere is determined with respect to high conductivity of the resistive sensor. An independent claim is included for a device for operating resistive sensor.



TI **Dosing module, particularly for metering reducing agent in exhaust pipe of internal combustion engine, has dosing valve surrounded in partial area of cooling body guiding cooling liquid, where cooling body has connecting pieces**

PI DE 102011086426 A1 16.05. 2013

AI 102011086426 16.11.2011

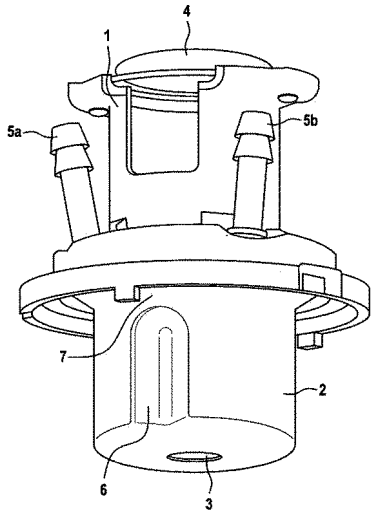
PRI DE 20111116 16.11.2011
102011086426

IC **F01N003/10**

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Kiontke, Martin, 71254 Ditzingen, DE; Pohl, Stephan, 71701 Schwieberdingen, DE

AB The dosing module has a dosing valve surrounded in a partial area of a cooling body (2) guiding the cooling liquid, where the cooling body has connecting pieces (5a,5b) for supplying and removing the cooling liquid. The cooling body has a flow-guiding unit between the connecting pieces, where the flow-guiding unit operates a comparison moderation of the cooling liquid flow by the cooling body. An independent claim is included for a method for designing a dosing module, particularly for metering a reducing agent into an exhaust pipe of an internal combustion engine.



TI **Method for providing exhaust gas systems for series production of vehicles, involves retrieving components from storage according to sequence order, and providing different exhaust gas systems according to sequence order in frame**

PI DE 102011086465 A1 16.05. 2013

AI 102011086465 16.11.2011

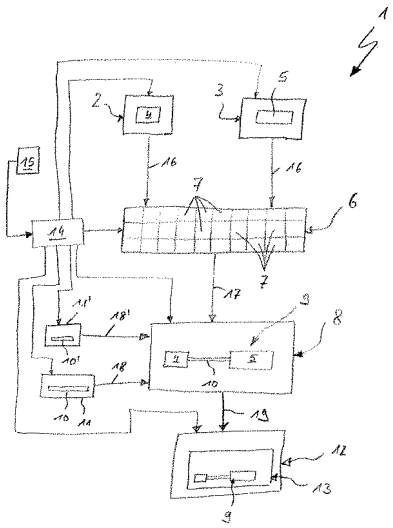
PRI DE 20111116 16.11.2011
102011086465

IC **B62D065/00**

PA J. Eberspaecher GmbH & Co. KG, 73730 Esslingen, DE

IN Schmitt, Markus, 66589 Merchweiler, DE

AB The method involves manufacturing components (4, 5) for all intended vehicle variants, and storing the components (16) in an automatic storage (6) e.g. warehouse and high-bay warehouse. The components are retrieved (17) from the storage according to sequence order (15) and supplied to an assembly station (8) i.e. welding station, so that different exhaust gas systems (9) are assembled according to the sequence order in the assembly station. The different exhaust gas systems are provided according to the sequence order in a frame (13). The components are silencers, catalyzers, selective catalytic reduction (SCR) plants, particulate filters, exhaust gas manifold and end pipes. An independent ...



TI **Device for post-treatment of exhaust gas for internal combustion engine, has housing with two housing sections, and sensor, which is designed such that exhaust gas flowing through latter housing section is supplied with highest flow rate**

PI DE 102011086621 A1 23.05. 2013

AI 102011086621 18.11.2011

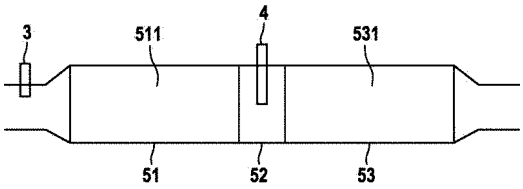
PRI DE 20111118 18.11.2011
102011086621

IC **F01N003/24** F01N011/00 F01N003/08 F01N003/10

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Pfeil, Michael, 71672 Marbach, DE; LABBE, Magnus, 71696 Moeglingen, DE; Hamann, Reinhard, 74321 Bietigheim-Bissingen, DE; Fey, Michael, 754 ...

AB The device has a housing with two housing sections (51,52,53), a catalyst unit (511) arranged in the former housing section, and a sensor (4) arranged in the latter housing section. The sensor is designed such that the exhaust gas flowing through the latter housing section is supplied with highest flow rate reaching in the latter housing section. The sensor is arranged at the central point of the cross-section of the latter housing section. The sensor is surrounded by a protection pipe at the exhaust gas side, which ends at the central point of the cross-section of the latter housing section.



TI **Method for operating selective catalytic reduction catalyzer utilized for reducing nitrogen oxides in exhaust gas from diesel engine of motor car, involves dosing reducing agent solution, and determining dosing amount based on value**

PI DE 102011086625 A1 23.05. 2013

AI 102011086625 18.11.2011

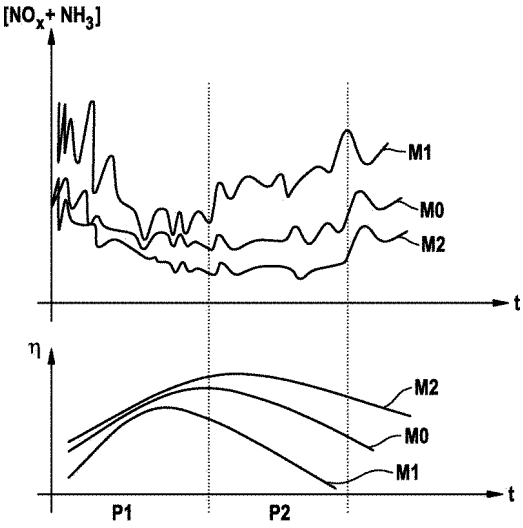
PRI DE 20111118 18.11.2011
102011086625

IC **F01N009/00** F01N011/00 F01N003/10

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Fritsch, Andreas, 71332 Waiblingen, DE; Holzeder, Andreas, 86441 Zusmarshausen, DE; Walz, Christian, 76448 Durmersheim, DE

AB The method involves determining a correction value from parameters of a selective catalytic reduction (SCR) catalyzer after completion of active diagnosis of the SCR catalyzer, where the correction value represents an aging state of the SCR catalyzer. A reducing agent solution is dosed in the SCR catalyzer, and a dosing amount of the reducing agent solution is determined based on the determined correction value. Diagnosis operating modes of the SCR catalyzer are determined during operation of the SCR catalyzer. A signal of a nitrogen oxide sensor is adjusted at a measuring point. The reducing agent solution is AdBlue(RTM: Aqueous urea solution). Independent claims are also included for the ...



TI **Device for simultaneous determination of level and quality of urea water solution for diesel engine, has ultrasonic transducers arranged in tank such that ultrasonic signals emitted by ultrasonic transducers overlap each other**

PI DE 102011086774 A1 23.05. 2013

AI 102011086774 22.11.2011

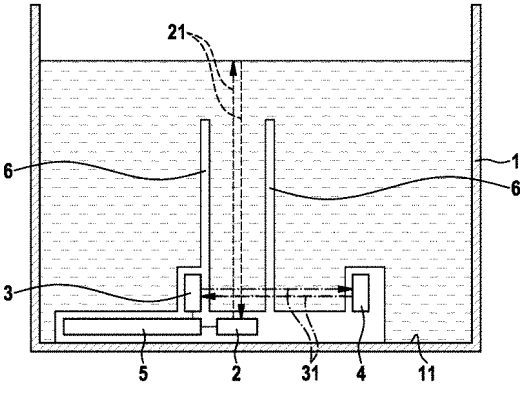
PRI DE 20111122 22.11.2011
102011086774

IC **F01N003/10** F01N009/00 G01F023/296

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Adamson, Robert D., Milton, US; Schneider, Burkhard, 71549 Auenwald, DE

AB The device has first and second ultrasonic transducers (2, 3) arranged in a tank (1) containing a reducing agent solution, where the first ultrasonic transducer is parallel to a base (11) of the tank. The ultrasonic transducers are arranged such that an ultrasonic signal (21) emitted by the first ultrasonic transducer overlap an ultrasonic signal (31) emitted by the second ultrasonic transducer. A reference objective (4) reflects the ultrasonic signal emitted by the second ultrasonic transducer to the second ultrasonic transducer. Independent claims are also included for the following: (1) a method for simultaneous determination of level and quality of a reducing agent solution (2) a comput ...



TI **Exhaust gas-turbo-loaded combustion engine i.e. diesel engine, has exhaust gas catalyst integrated in bypass strand behind high pressure turbine of supercharger, and bypass pipe in parallel connection to high pressure turbine**

PI DE 102011086778 A1 23.05. 2013

AI 102011086778 22.11.2011

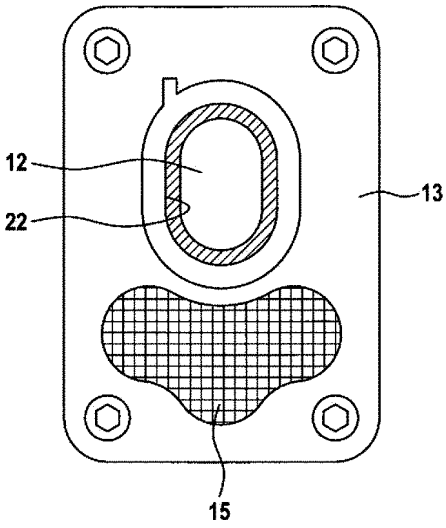
PRI DE 20111122 22.11.2011
102011086778

IC **F02B037/007** F01N003/20 F01N003/10 F02B037/18

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Tophoven, Jens, 71636 Ludwigsburg, DE; Mauch, Andreas, 71642 Ludwigsburg, DE

AB The engine has an exhaust line (21) comprising an exhaust gas catalyst i.e. oxidation catalyst (15) such as pre-turbo catalyst, in a series arrangement with a high pressure turbine (14) and a low-pressure turbine (16) of first and second superchargers. A bypass pipe (22) is in a parallel connection to the high pressure turbine of the first supercharger. The exhaust gas catalyst is integrated in a bypass strand behind the high pressure turbine to a bypass flap (12), where the bypass strand and the bypass flap are integrated in a common bypass housing (13) adjacent to each other.



TI **Method for operating selective catalytic reduction catalyst system, involves feeding reducing agent quantity by dosing valve in multiple partial doses in selective catalytic reduction catalyst during request of reducing agent quantity**

PI DE 102011086779 A1 23.05. 2013

AI 102011086779 22.11.2011

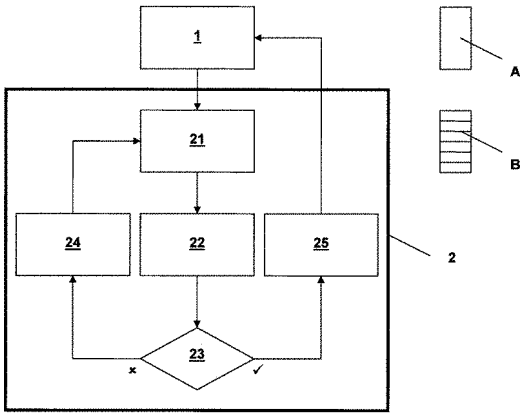
PRI DE 20111122 22.11.2011
102011086779

IC **F01N003/10** F01N009/00

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Mattes, Patrick, 70569 Stuttgart, DE

AB The method involves feeding the reducing agent quantity (A) by a dosing valve in multiple partial doses (B) in a selective catalytic reduction (SCR) catalyst during a request of a reducing agent quantity by a SCR catalyst in a correction-operation mode (2). The correction value is determined, which is used in a normal operation (1) of the SCR catalyst system in order to correct the reducing agent quantity fed in the SCR catalyst. Independent claims are included for the following: (1) a computer program; and (2) a computer program product with a program code.



TI **DEVICE FOR COOLING A METERING VALVE**

PI DE 102011086795 A1 23.05. 2013

AI 102011086795 22.11.2011

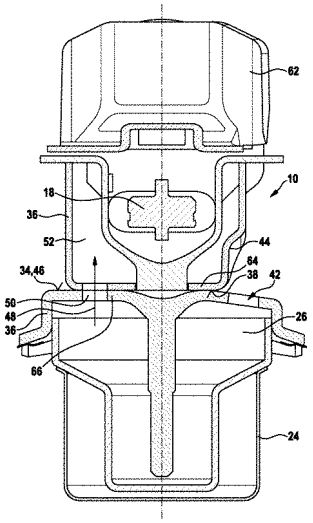
PRI DE 20111122 22.11.2011
102011086795

IC **F01N003/10** F01N003/02

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Kiontke, Martin, 71254 Ditzingen, DE; Winkler, Jochen, 73730 Esslingen, DE

AB The invention relates to a metering module (10) including a metering valve (12). The metering module further includes a cooling device through which a cooling fluid flows. Said cooling device comprises a first chamber (26) that has a cooling fluid inlet (42). The metering valve (12) has an additional cooling member (36) containing a second chamber (52) which is hydraulically connected to the first chamber (26) via at least one opening (50).



TI **METERING MODULE FEATURING AIR GAP INSULATION**

PI **DE 102011086798 A1** 23.05. 2013

AI 102011086798 22.11.2011

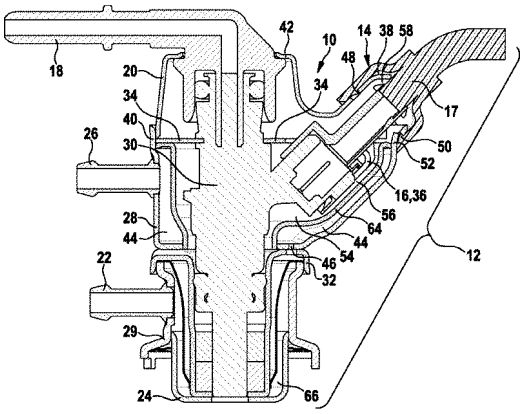
PRI DE 20111122 22.11.2011
102011086798

IC **F01N003/36** F01N003/10

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Kiontke, Martin, 71254 Ditzingen, DE; Pohl, Stephan, 71701 Schwieberdingen, DE; Knittel, Achim, 71254 Ditzingen, DE

AB [WO 2013076028 A1] The invention relates to a device for cooling a metering module (10), in particular a module for metering an operating agent/auxiliary agent such as a reducing agent into the exhaust gas system of an internal combustion engine. A cooling device comprising a cooling member (17, 20, 24, 28, 29) through which a cooling liquid flows is associated with the metering module (10). The cooling member (17, 20, 24, 28, 29) acts as a housing (12) for the metering module (10). A first group of parts (17, 20, 28) forms an air gap insulation (38; 54, 56, 58) on an electric contact (16, 36), while cooling fluid flows through a second group of parts (28, 29, 40).



TI **Flexible line unit, particularly for exhaust system of internal combustion engine of vehicle, has helically corrugated or ring-shaped corrugated metal bellows and metal knitted fabric hose or netting hose**

PI **DE 102011086840 A1** 23.05. 2013

AI 102011086840 22.11.2011

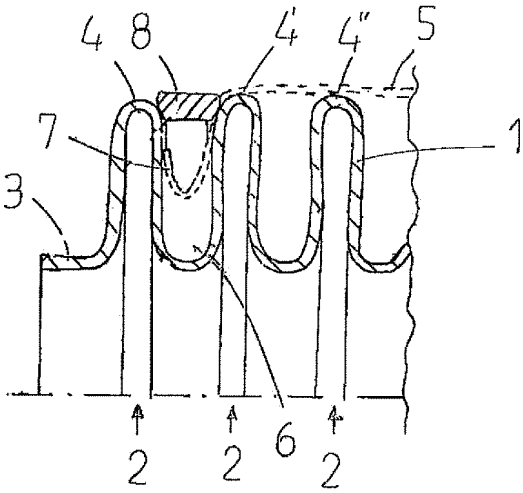
PRI DE 20111122 22.11.2011
102011086840

IC **F01N013/08** F01N013/18 F16L051/02 F16L027/111

PA Witzenmann GmbH, 75175 Pforzheim, DE

IN Reuss, Sebastian, 76307 Karlsbad, DE; Selzer, Michael, 75175 Pforzheim, DE

AB The flexible line unit has a helically corrugated or ring-shaped corrugated metal bellows (1) and a metal knitted fabric hose (5) or netting hose, which is coaxially mounted externally on the metal bellows. A heat-resistant retaining ring (8) is attached externally on the knitted fabric hose or netting hose. The retaining ring clamps the knitted fabric hose between the netting hose and the metal bellows.



TI **DEVICE FOR MEASURING AT LEAST ONE EXHAUST GAS COMPONENT IN AN EXHAUST GAS DUCT OF A COMBUSTION PROCESS**

PI **DE 102011087000 A1** 29.05. 2013

AI 102011087000 24.11.2011

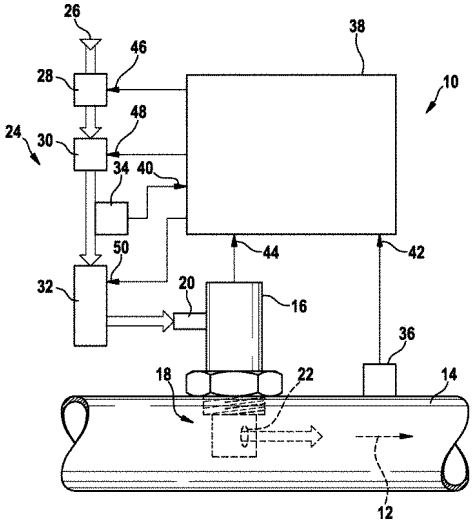
PRI DE 20111124 24.11.2011
102011087000

IC **F01N011/00** F01N009/00 F02D041/00 G01N027/417 G01M015/00

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Jaeger, Hans-Martin, 71636 Ludwigsburg, DE; Schuler, Dieter, 70188 Stuttgart, DE

AB [US 2013133400 A1] A device (10), which contains at least one exhaust gas probe (16), is proposed for measuring at least one exhaust gas component in an exhaust gas duct (14) of a combustion process. The device is characterized in that the exhaust gas probe (16) comprises at least one air connection (20), at least one air duct (60) leading past a sensing element (64) of said exhaust gas probe (16) and connected to the air connection (20) as well as at least one air outlet opening (22).



TI **Method for operating selective catalytic reduction-catalyst system in exhaust gas system, involves calculating factor from volume of selective catalytic reduction on filter-catalyst**

PI DE 102011087082 A1 29.05. 2013

AI 102011087082 25.11.2011

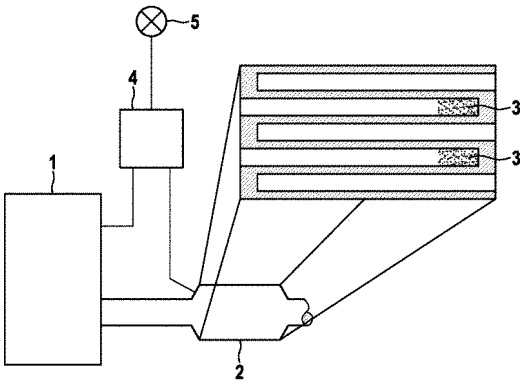
PRI DE 20111125 25.11.2011
102011087082

IC **F01N003/10** F01N003/035 F01N009/00 F01N003/20 B01D053/94

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Fritsch, Andreas, 71332 Waiblingen, DE; Burger, Matthias, 71711 Murr, DE; Zeyer, Bruno, 71672 Marbach, DE; Lueders, Hartmut, 71717 Beilstei ...

AB The operating method involves calculating a factor from a volume of a selective catalytic reduction on filter (SCRF)-catalyst (2). The factor is multiplicatively or additively corrected by a correction value, where a known maximum ammonia storage capacity of the SCRF-catalyst is replaced by the modified maximum ammonia storage capacity of the SCRF catalyst when a reduction agent quantity to-be-dosed is calculated. A modeling of nitrogen oxide-conversion of the SCRF-catalyst takes place by a differential equation from the space velocity for calculating the reduction agent quantity to-be-dosed. An independent claim is included for a computer program product for performing a method for operati ...



TI **COOLING DEVICE COMPRISING DRAINAGE BORES FOR A METERING VALVE**

PI DE 102011087085 A1 29.05. 2013

AI 102011087085 25.11.2011

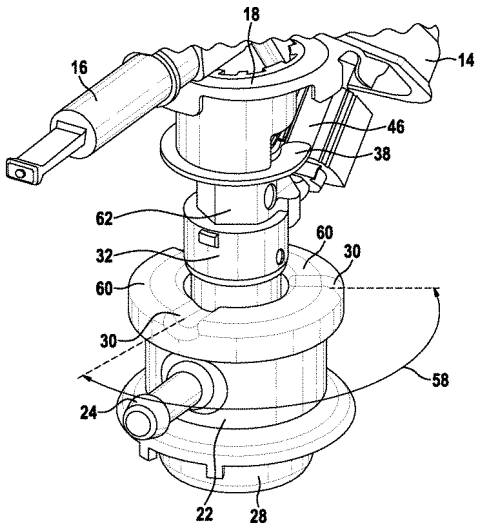
PRI DE 20111125 25.11.2011
102011087085

IC **F01N003/10** F01P003/16

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Kiontke, Martin, 71254 Ditzingen, DE; Pohl, Stephan, 71701 Schwieberdingen, DE; Knittel, Achim, 71254 Ditzingen, DE

AB [WO 2013076112 A1] The invention relates to a device for cooling a metering module, in particular a module for metering an operating agent/auxiliary agent such as a reducing agent into the exhaust gas system of an internal combustion engine. A cooling device through which a cooling fluid flows is associated with the metering module (10). An outer surface (34) of the metering module (10) is enclosed by a cooling member (18, 20, 22) through which the cooling fluid flows. The multi-part cooling member (18, 20, 22) comprises drainage openings (30) for discharging (78) the cooling fluid/for discharging liquids in order to prevent said fluid/liquids from accumulating on the bottom of the cooling ...



TI **METHOD AND DEVICE FOR REGULATING AN AIR-FUEL RATIO OF AN INTERNAL COMBUSTION ENGINE**

PI DE 102011087213 A1 29.05. 2013

AI 102011087213 28.11.2011

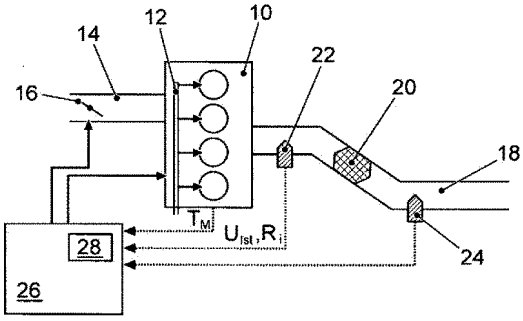
PRI DE 20111128 28.11.2011
102011087213

IC **F02D041/14**

PA VOLKSWAGEN AG, 38440 Wolfsburg, DE

IN Hahn, Hermann, Dr.-Ing., 30175 Hannover, DE

AB The invention relates to a method and to a regulating device for regulating an air-fuel ratio of an internal combustion engine (10), wherein an exhaust-gas composition of an exhaust gas of the internal combustion engine (10) is determined by virtue of an actual probe signal, which is dependent on the exhaust-gas composition, being detected by means of an exhaust-gas probe (22) and the exhaust-gas composition being determined as a function of the actual probe signal by means of a characteristic curve or a calculation rule, and wherein the determined exhaust-gas composition is compared with a setpoint value or a threshold value, the attainment or exceedance of which triggers a manipulation of ...



TI **INTERNAL COMBUSTION ENGINE WITH AN ARRANGEMENT FOR FEEDING BACK EXHAUST GAS AND SUPPLYING COOLED CHARGE AIR**

PI DE 102011087256 A1 29.05. 2013

AI 102011087256 28.11.2011

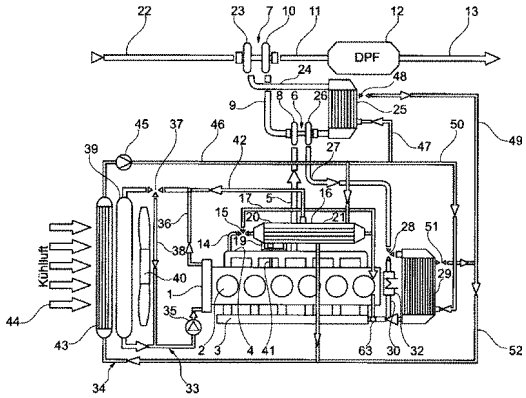
PRI DE 20111128 28.11.2011
102011087256

IC **F02M025/07** F02B033/44 F02M029/04 F02B037/013 F01L003/02 F02F011/00 F02F003/10 F02F005/00 F02B039/00 F01N013/08 F01N003/021

PA Behr GmbH & Co. KG, 70469 Stuttgart, DE; MAHLE International GmbH, 70376 Stuttgart, DE

IN Buecker, Christian, 80805 Muenchen, DE; Jacobi, Detlef, 71332 Waiblingen, DE; Kleber, Andreas, 71672 Marbach, DE; Sautter, Nic, 73207 Ploch ...

AB [WO 2013079427 A1] The invention relates to an internal combustion engine (1): with an arrangement for feeding back exhaust gas and supplying cooled charge air to an internal combustion engine (1), wherein the internal combustion engine (1) comprises an exhaust gas supercharging system (6, 7) and an exhaust gas cooling system (16); with an exhaust gas cooling system (16) having a single or double stage exhaust gas cooler with a first cooling stage (20) and optionally a second cooling stage (21); with at least one bypass (17) for circumventing the first and/or the second cooling stage of the exhaust gas cooler (16); with at least one exhaust gas control valve (15); with at least one intercoo ...



TI **DOSING MODULE**

PI DE 102011087267 A1 29.05. 2013

AI 102011087267 29.11.2011

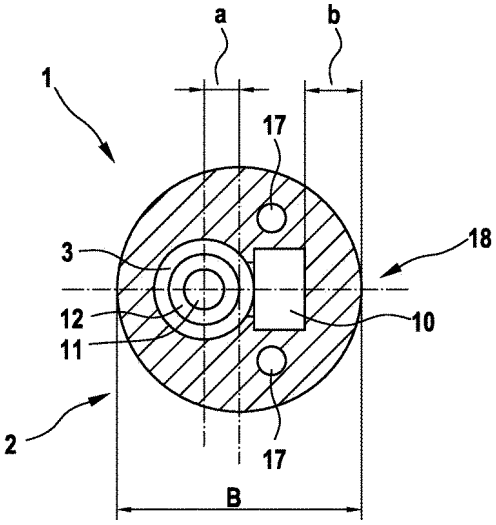
PRI DE 20111129 29.11.2011
102011087267

IC **F01N003/10**

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Heiter, Tobias, 76227 Karlsruhe, DE; Murst, Martin, 74321 Bietigheim-Bissingen, DE; Meingast, Ulrich, 70499 Stuttgart, DE

AB [WO 2013079498 A1] Dosing module (1), in particular for the dosing of a reduction agent in an exhaust gas line of an internal combustion engine, wherein the dosing module (1) has a dosing valve installed in a dosing module casing (2), said dosing valve having a valve body (3) with a connection protruding from the side of the dosing valve, and wherein a cooling device (7) through which a coolant flows is assigned to the dosing module; according to the invention, a dosing module (1) is provided, which requires a reduced installation space and enables the use of the dosing module (1) at higher ambient temperatures. This is achieved in that the valve body (3) of the dosing valve is arranged in ...



TI **EXHAUST DUCT SEGMENT HAVING A METERING DEVICE FOR ADDING IN METERED MANNER A REDUCING AGENT TO AN EXHAUST DUCT OF AN INTERNAL COMBUSTION ENGINE**

PI DE 102011087284 A1 29.05. 2013

AI 102011087284 29.11.2011

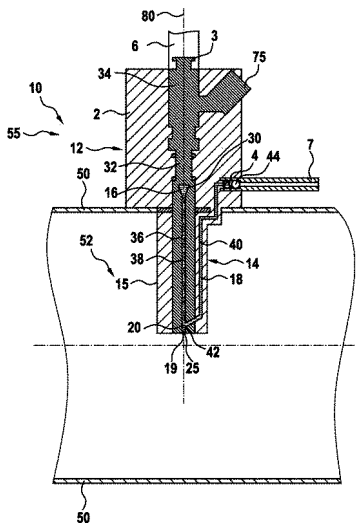
PRI DE 20111129 29.11.2011
102011087284

IC **F01N003/10**

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Hesselmann, Christoph, 83569 Vogtareuth, DE

AB [WO 2013079504 A1] The invention relates to an exhaust duct segment (55) having a metering device (10) for adding in metered manner a reducing agent (16) to an exhaust duct (50) of an internal combustion engine, and to a method for adding in metered manner a reducing agent (16) to the exhaust duct (50) of an internal combustion engine, wherein the metering device (10) has a mixing chamber (20), and wherein a first supply duct (30) for a liquid reducing agent (16) and a second supply duct (40) for a gaseous propellant (18) open into the mixing chamber (20), characterised in that the mixing chamber (20) is arranged in a region (52) of the exhaust duct segment (55) that conducts exhaust gas.



TI **EXHAUST GAS AFTERTREAMENT SYSTEM AND METHOD FOR INTRODUCING A REDUCTANT INTO AN EXHAUST GAS CHANNEL OF AN INTERNAL COMBUSTION ENGINE**

PI **DE 102011087288 A1** 29.05. 2013

AI 102011087288 29.11.2011

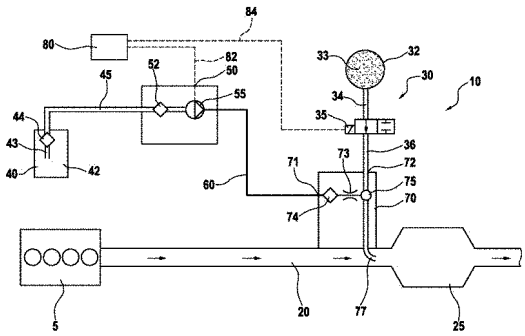
PRI DE 20111129 29.11.2011
102011087288

IC **F01N003/10** B01D053/94

PA Robert Bosch GmbH, 70469 Stuttgart, DE

IN Gansel, Rainer, 74392 Freudental, DE; Kerst, Andreas, 70619 Stuttgart, DE; Meingast, Ulrich, 70499 Stuttgart, DE; Nentwig, Godehard, 70499 ...

AB [WO 2013079509 A1] The invention relates to an exhaust gas aftertreament system (10) and a method for introducing a reductant (42) into an exhaust gas channel (20) of an internal combustion engine (5). The exhaust gas aftertreament system (10) comprises a reservoir (40), a metering pump (55), a mixing chamber (70), and a compressed-gas supply (30). The metering pump (55) introduces the reductant (42) from the reservoir (40) into the mixing chamber (70), wherein the compressed-gas supply (30) introduces a gas (33) into the mixing chamber (70) in such a way that the reductant (42) is atomized. The mixing chamber (70) is arranged at a distance from the metering pump (55), wherein the metering ...



TI **METHOD AND DEVICE FOR CONTROLLING A FUEL REGULATOR**

PI **DE 102011087300 A1** 29.05. 2013

AI 102011087300 29.11.2011

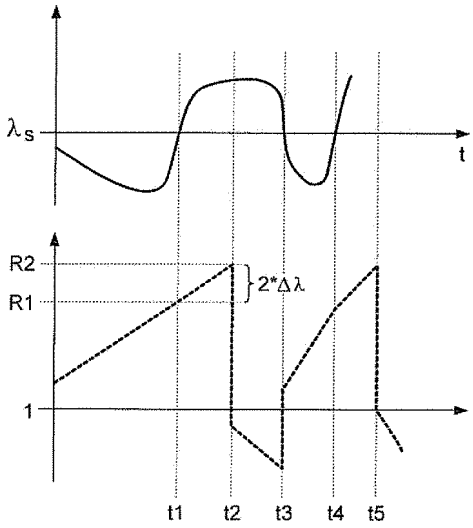
PRI DE 20111129 29.11.2011
102011087300

IC **F02D041/14**

PA VOLKSWAGEN AG, 38440 Wolfsburg, DE

IN Hahn, Hermann Dr., 30175 Hannover, DE

AB The invention relates to a method for operating an internal combustion engine (10). According to the method, an exhaust gas produced by the internal combustion engine (10) is conducted across a 3-way catalytic converter (20) arranged in the exhaust duct (16). A lambda probe (26) detects a value characteristic of an exhaust-gas lambda number upstream of the 3-way catalytic converter (20), and transmits said value to an engine control unit (28) with an integrated regulator. By means of the regulator of the engine control unit (28), through the specification of a lambda setpoint value, a mean exhaust-gas lambda number (lambdam) is set, and the mean exhaust-gas lambda number (lambdam) is, with ...



TI **METHOD AND APPARATUS FOR DETERMINING A LAMBDA VALUE OR AN OXYGEN CONCENTRATION OF A GAS MIXTURE**

PI **DE 102011087312 A1** 29.05. 2013

AI 102011087312 29.11.2011

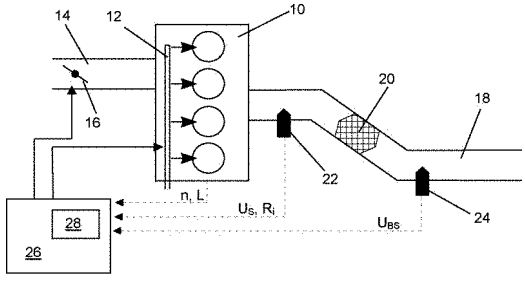
PRI DE 20111129 29.11.2011
102011087312

IC **F02D041/14**

PA VOLKSWAGEN Aktiengesellschaft, 38436 Wolfsburg, DE

IN Hahn, Hermann, Dr.-Ing., 30175 Hannover, DE

AB The invention relates to a method and an apparatus for determining a lambda value or an oxygen concentration of a gas mixture, wherein a lambda probe (22) is used to detect a probe signal dependent on the lambda value or the oxygen concentration, and the lambda value or the oxygen concentration is determined on the basis of the probe signal using a characteristic curve or a calculation rule. Provision is made for an interfering influence of at least one further component of the gas mixture, which is different than oxygen, on the probe signal to be corrected.



TI **Diesel particulate filter for use in filter arrangement for separating and oxidizing soot particles from exhaust gases of exhaust system of diesel engine of motor vehicle, comprises filter medium wound around rod-shaped heating element**

PI **DE 102011117172 A1** 02.05. 2013

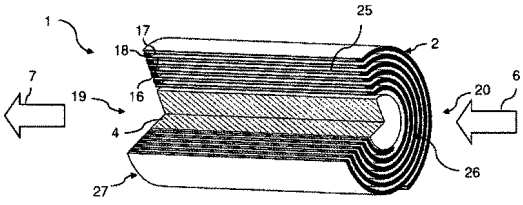
AI 102011117172 28.10.2011

PRI DE 20111028 28.10.2011
102011117172

IC **F01N003/027** F01N003/022

PA Mann + Hummel GmbH, 71638 Ludwigsburg, DE

IN Heilmann, Tanja, 42781 Haan, DE; Muenkel, Karlheinz, 75038 Oberderdingen, DE; Hensel, Volker, 69117 Heidelberg, DE; Lampen, Ulrich, 61348 B ...



AB The diesel particulate filter (1) comprises a filter medium (2) and a rod-shaped heating element (4) made of metal, where the filter medium is wound around the rod-shaped heating element. The filter medium comprises a metal mesh, metal fabric, metal fleece, a porous metal material and a metal structure sintered with metal powder for retaining the particles. The heating element is configured as a stabilizing support element for the wound filter medium. The filter medium is corrugated or folded and is wound by a winding around the heating element. An independent claim is included for a filter arrangement with a housing, a diesel particulate filter and a power source for igniting a heating ele ...

TI **Sound damping device for gas-guiding pipe, particularly for exhaust pipe of exhaust gas system of motor vehicle, has vibratory membrane, which stays in acoustic connection with gas-guiding pipe at coupling-out point**

PI **DE 102011117807 A1** 08.05. 2013

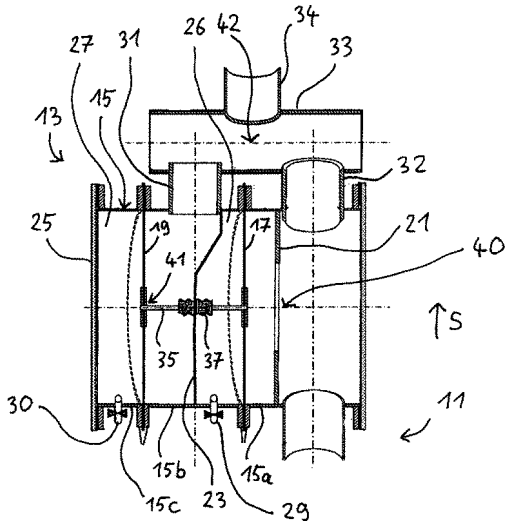
AI 102011117807 07.11.2011

PRI DE 20111107 07.11.2011
102011117807

IC **F01N001/06** G10K011/175

PA Friedrich Boysen GmbH & Co. KG, 72213 Altensteig, DE

IN Wellner, Friedrich, 66424 Homburg, DE



AB The sound damping device (13) has a vibratory membrane (17), which stays in acoustic connection with the gas-guiding pipe at a coupling-out point (40). Another vibratory membrane (19) stays in acoustic connection with a pressure compensation pipe at an excitation point (41). The acoustic distance between the coupling-out point and the coupling point (42) is equal to the acoustic distance between the excitation point and the coupling point.

TI **Exhaust gas purification device for catalytic reduction of exhaust gases in exhaust line of e.g. diesel engine of vehicle, has introduction device that is oriented to apply reducing agent only on primary flow surface of mixing element**

PI **DE 102011118049 A1** 08.05. 2013

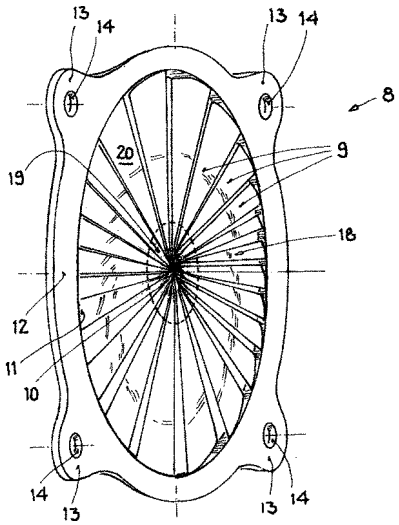
AI 102011118049 05.11.2011

PRI DE 20111105 05.11.2011
102011118049

IC **F01N003/28** F01N013/08 F01N003/10

PA AUDI AG, 85045 Ingolstadt, DE

IN Schimik, Viktor, 74235 Erlenbach, DE; Brechter, Michael, 74219 Moeckmuehl, DE



AB The exhaust gas purification device (1) has an introduction device (4) for introducing reducing agent into an exhaust line (3). A mixing element (8) for mixing reducing agent with exhaust gases, is arranged downstream of introduction device in exhaust gas line. A main flow surface (18) of mixing element is divided into primary flow surface (19) and a secondary flow surface (20) such that primary flow surface surrounds secondary flow surface in circumferential direction. The introduction device is oriented to apply reducing agent only on primary flow surface of mixing element.

TI **Device, useful to purify exhaust gases e.g. hydrocarbons from e.g. ships, comprises selective catalytic reduction active compound and alkali salt that are present in a common coating on a substrate that is a ceramic or metallic filter body**

PI DE 102011118232 A1 16.05. 2013

AI 102011118232 10.11.2011

PRI DE 20111110 10.11.2011
102011118232

IC **B01D053/86** B01D053/56 B01D053/94 B01J029/00

PA NANO-X GmbH, 66130 Saarbruecken, DE

IN Sepeur, Stefan, 66787 Wadgassen, DE; Frenzer, Gerald, 66130 Saarbruecken, DE; Hammarberg, Elin, 66119 Saarbruecken, DE

AB The device comprises a selective catalytic reduction (SCR) active compound and an alkali salt, where a molar ratio of the SCR active compound to the alkali salt is = 1:0.5. The SCR active compound and the alkali salt are present in a common coating on a substrate. The substrate consists of ceramic, metal, glass, glass ceramic and stone, and is a ceramic or metallic filter body. Independent claims are included for: (1) a coating material; (2) a method for producing a device; (3) a catalytic coating on a substrate; and (4) a method for the purification of gases.

(57) Zusammenfassung: Die vorliegende Erfindung betrifft eine Vorrichtung zum Reinigen von Gasen, ein Beschichtungsmaterial für eine solche Vorrichtung, ein Verfahren zur Herstellung einer solchen Vorrichtung unter Verwendung dieses Beschichtungsmaterials, eine nach diesem Verfahren erhältliche katalytische Beschichtung sowie ein Verfahren zum Reinigen von Gas, insbesondere Abgas.

TI **Exhaust gas post-treatment device for gasoline engine of motor vehicle, comprises nitrogen monoxide storage catalyst arranged in exhaust tract between catalyst and particulate filter, and branch line with supply line attached to it**

PI DE 102011118337 A1 16.05. 2013

AI 102011118337 11.11.2011

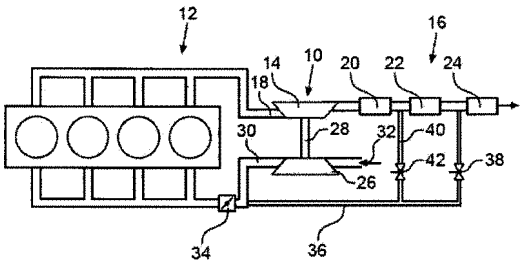
PRI DE 20111111 11.11.2011
102011118337

IC **F01N003/22** F01N009/00 F01N003/08

PA Daimler AG, 70327 Stuttgart, DE

IN Otto, Frank, 73734 Esslingen, DE; Roessler, Klaus, 70499 Stuttgart, DE

AB The exhaust gas post-treatment device (16) comprises a catalyst (20) arranged in an exhaust tract (18) and a particulate filter (24) arranged in the exhaust tract. A nitrogen monoxide storage catalyst (22) is arranged in the exhaust tract between the catalyst and the particulate filter. A branch line (36) has a supply line attached to it, through which charge air is directly supplied into the exhaust tract before the nitrogen monoxide-storage catalyst and the supplied quantity of the charge air is controlled by a secondary cut-off valve arranged in the supply line. An independent claim is included for a method for post-treatment of exhaust gas of an internal combustion engine.



TI **METHOD FOR STOPPING THE OPERATION OF A METERING DEVICE**

PI DE 102011118626 A1 16.05. 2013

AI 102011118626 16.11.2011

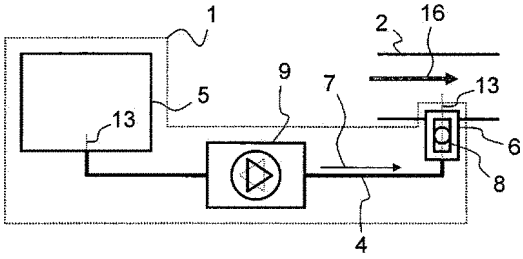
PRI DE 20111116 16.11.2011
102011118626

IC **F01N009/00** F01N003/10

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN Bauer, Peter, 95505 Immenreuth, DE

AB [WO 2013072189 A1] The invention relates to a method for stopping the operation of a metering device (1) for metering a liquid additive in an exhaust gas treatment system (2) for cleaning the emissions of an internal combustion engine (3), comprising at least one line system (4), which interconnects a reservoir (5) for storing the additive and a feeding device (6) for feeding the additive to the exhaust gas treatment system (2). The additive can be conveyed through the line system (4) from the reservoir (5) to the feeding device (6) by way of a conveyor unit (7). Initially, in a step a) of the method, the internal combustion engine (3) is stopped. Subsequently, in a step b), at least one ti ...



TI **DELIVERY UNIT FOR DELIVERING A LIQUID ADDITIVE**

PI **DE 102011118652 A1** 16.05. 2013

AI 102011118652 16.11.2011

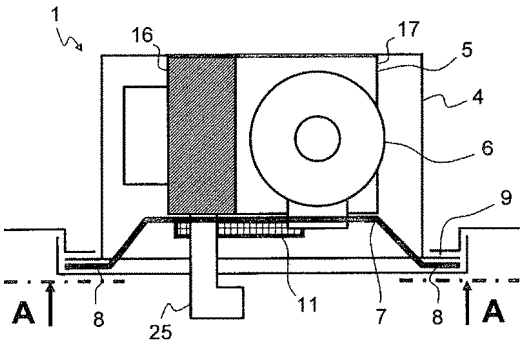
PRI DE 20111116 16.11.2011
102011118652

IC **F01N003/10**

PA Emitec France S.A.S, Faulquemont, FR; Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN Maguin, Georges, Marly, FR; Diouf, Cheikh, 57530 Silly-sur Nied, FR; Schepers, Sven, 53844 Troisdorf, FR; Hodgson, Jan, 53840 Troisdorf, DE

AB [WO 2013072190 A1] The invention relates to a delivery unit (1) for delivering a liquid additive from a tank (2) into an exhaust gas treatment device (3), having at least a housing (4), which can be mounted on the tank (2), and a component carrier (5), which carries at least one pump (6) and is fixed in the housing (4) by means of a clamping plate (7).



TI **Petrol engine for vehicle, has three-way catalytic converter arranged in exhaust line between engine outlet and pressure wave supercharger inlet, and particulate filter arranged in exhaust line after pressure wave supercharger outlet**

PI **DE 102011118765 A1** 23.05. 2013

AI 102011118765 17.11.2011

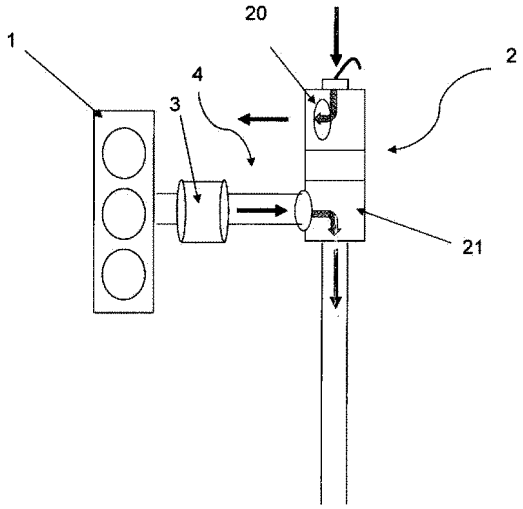
PRI DE 20111117 17.11.2011
102011118765

IC **F01N003/24** F01N003/34 F02B033/42 F04F013/00

PA Benteler Automobiltechnik GmbH, 33102 Paderborn, DE

IN Lang, Oliver, 33104 Paderborn, DE; Kollmeier, Marco, 33602 Bielefeld, DE; Fricke, Fabian, Dr., 33102 Paderborn, DE

AB The engine (1) has a three-way catalytic converter (3) arranged in an exhaust line (4) between an engine outlet and a pressure wave supercharger inlet, where the catalytic converter is additionally provided with a particle filter function. A particulate filter is arranged in the exhaust line after a pressure wave supercharger outlet. A nitrogen oxide post-treatment system is arranged after the filter. A pressure wave supercharger (2) is controlled such the pressure wave supercharger enriches exhaust gas with oxygen by purging the exhaust gas with air with respect to the outlet. An independent claim is also included for a method for controlling exhaust gas temperature in a petrol engine.



TI **Spark-ignition engine has purification system for lean exhaust gas, which is arranged in exhaust line of outlet pressure wave supercharger**

PI **DE 102011118766 A1** 23.05. 2013

AI 102011118766 17.11.2011

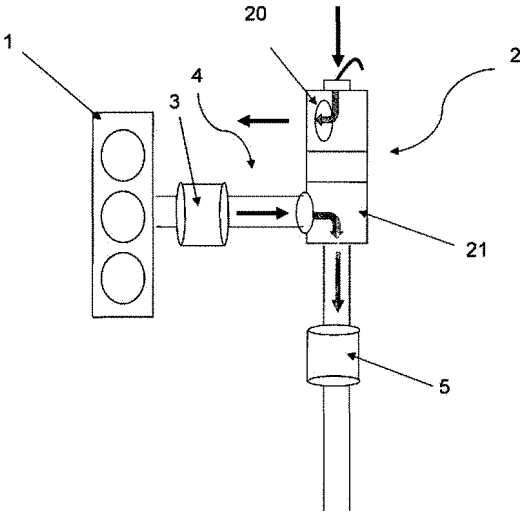
PRI DE 20111117 17.11.2011
102011118766

IC **F01N003/24** F01N003/34 F02B033/42 F04F013/00

PA Benteler Automobiltechnik GmbH, 33102 Paderborn, DE

IN Lang, Oliver, 33104 Paderborn, DE; Kollmeier, Marco, 33602 Bielefeld, DE; Fricke, Fabian, Dr., 33102 Paderborn, DE

AB The spark-ignition engine (1) has a pressure wave supercharger (2) and a regulated three-way catalyst (3), where the three-way catalyst is arranged in an exhaust line (4) between the engine exhaust and intake pressure wave supercharger. A purification system for lean exhaust gas is arranged in the exhaust line of an outlet pressure wave supercharger. The lean exhaust gas purification system is a system for selective catalytic reduction (5). An independent claim is included for a method for controlling an exhaust gas temperature in a spark-ignition engine.



TI **Method for monitoring regeneration of diesel particulate filter of diesel engine mounted in motor vehicle, involves setting limit value for determining whether regeneration process of particulate filter is carried out frequently or not**

PI **DE 102011118767 A1** 23.05. 2013

AI 102011118767 17.11.2011

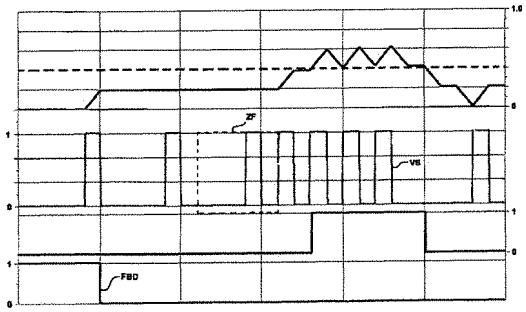
PRI DE 20111117 17.11.2011
102011118767

IC **F01N011/00** F01N009/00 F02D041/04

PA IAV GmbH Ingenieurgesellschaft Auto und Verkehr, 10587 Berlin, DE

IN Duve, Sebastian, 38855 Wernigerode, DE; Kopmann, Torben, 38542 Leiferde, DE; Kuppe, Stefan, 38118 Braunschweig, DE; Neumann, Enrico, 38442 ...

AB The method involves operating the internal combustion engine in normal combustion mode and regeneration mode. The signal (VS) is formed for indicating whether the internal combustion engine is operated in the normal combustion mode or regeneration mode. The sliding mean value is formed in response to the signal so as to set a predetermined limit value for determining whether the regeneration process of the diesel particulate filter is carried out frequently or not.



TI **MODULAR FLANGE**

PI **DE 102011118862 A1** 23.05. 2013

AI 102011118862 18.11.2011

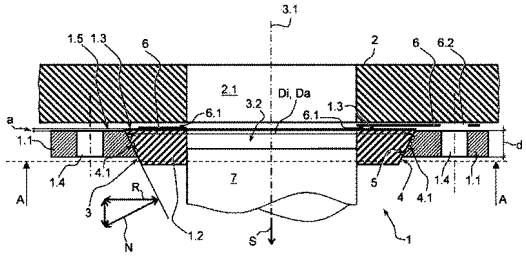
PRI DE 20111118 18.11.2011
102011118862

IC **F01N013/10** F02M035/10

PA Tenneco GmbH, 67480 Edenkoben, DE

IN Weidner, Michael, 67480 Edenkoben, DE; Steigert, Andreas, 67466 Lambrecht, DE; Fuhrmann, Bernd, 67376 Harthausen, DE; Engel, Rolf, 67487 Ma ...

AB [WO 2013072477 A1] The invention relates to a multipart gas pipe flange (1) for connecting to a counter-flange (2) of an internal combustion engine, comprising at least one flange plate (1.1) designed as an outer flange, and comprising a flange inner part (1.2) that can be received in said flange plate and is used for attaching a gas pipe (7) which is connected downstream of the inner part in the flow direction and which is fluidically connected. The flange plate (1.1) has at least one recess (3) for the flange inner part (1.2), said recess having at least one inner surface (5) and an inner diameter Di, and a mounting surface (1.5) which can be placed at least indirectly on the counter-flan ...



TI **Exhaust gas tract for use in six-cylinder in-line engine of motor vehicle, has control element insertable into tract unit through lockable mounting opening such that control element is pivotally mounted on lockable mounting opening**

PI **DE 102011118899 A1** 23.05. 2013

AI 102011118899 18.11.2011

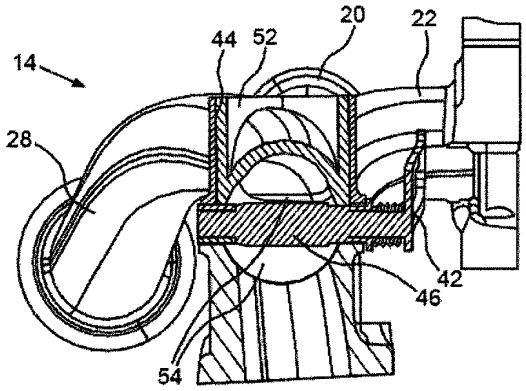
PRI DE 20111118 18.11.2011
102011118899

IC **F02B037/02** F02B029/08 F02B037/18 F02M025/07 F02D009/08

PA Daimler AG, 70327 Stuttgart, DE

IN Eberle, Frank, Dipl.-Ing., 74821 Mosbach, DE

AB The tract (12) has an exhaust gas tract unit (14) whose exhaust gas passage leads to a turbine (36) of a supercharger (32) such that the turbine is acted upon over the passage with exhaust gas of an internal combustion engine (10). A control element i.e. flap, varies a through-flow cross section of an exhaust gas return channel (28) and a through-flow cross section of the passage. The tract unit comprises a lockable mounting opening by which the control element is insertable into the tract unit such that the control element is movably pivotally mounted on the opening within the tract unit. An independent claim is also included for a method for assembling an exhaust gas tract for a motor veh ...



TI **Stretchable metal hose for use in exhaust system of passenger car, has polygonal-shaped radial section whose polygon edges have different shapes at periphery, where three of polygon edges are shaper than other edges of radial section**

PI **DE 102011118939 A1** 23.05. 2013

AI 102011118939 21.11.2011

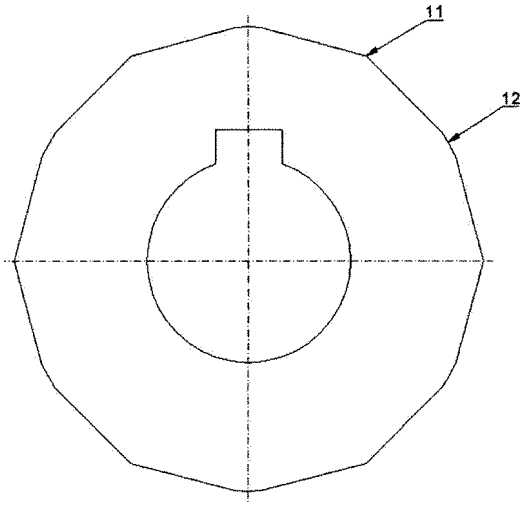
PRI DE 20111121 21.11.2011
102011118939

IC **F16L011/16** F16L011/14 F01N013/08 B21C037/12

PA Westfalia Metallschlauchtechnik GmbH & Co. KG, 57271 Hilchenbach, DE

IN Weiss, Matthias, 57271 Hilchenbach, DE; Muenker, Karl-Heinz, 57271 Hilchenbach, DE; Baumhoff, Dietmar, 57462 Olpe, DE; Gerhard, Andreas, 57 ...

AB The hose has a polygonal-shaped radial section whose polygon edges have different shapes at periphery. Three of the polygon edges are shaper than other edges of the radial section. A number of sharper edges (11) on the periphery of the radial section exactly accounts for half of total number of edges, where the geometric design with sharper and less sharp polygon edges is visual identifiable by the hose. Oxide layers are formed in a contact region between tape layers in case of temperature stress in operation. An independent claim is also included for an inner arbor for manufacturing a stretchable metal hose.



TI **Heat exchanger and assembly of a heat exchanger in an exhaust gas line of an internal combustion engine**

PI **DE 102011119162 A1** 23.05. 2013

AI 102011119162 23.11.2011

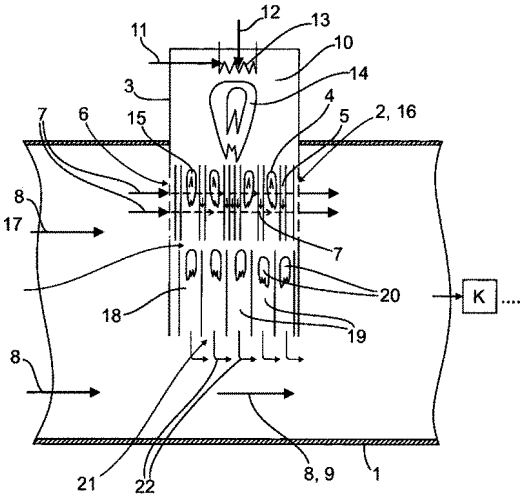
PRI DE 20111123 23.11.2011
102011119162

IC **F23D003/40** F23D014/16 F01N003/025 F01N003/10 F01N003/28

PA MAN Truck & Bus AG, 80995 Muenchen, DE

IN Doering, Andreas, 80339 Muenchen, DE

AB The heat exchanger (2) has primary-side flow channels (4,5) for flow of heated medium. The secondary-side flow channels (6) are thermally coupled to primary-side flow channels for flow of to-be-heated medium so as to increase the exhaust gas temperature of internal combustion engine. The primary-side flow channels flow the fuel-air mixture or combustible mixture which is oxidized in combustion chamber of burner apparatus (16). An independent claim is included for a heat exchanger arrangement.



TI **Burner apparatus for the combustion chamber of a burner, in particular for raising the temperature of the exhaust gas of a combustion engine of a motor vehicle**

PI **DE 102011119163 A1** 23.05. 2013

AI 102011119163 23.11.2011

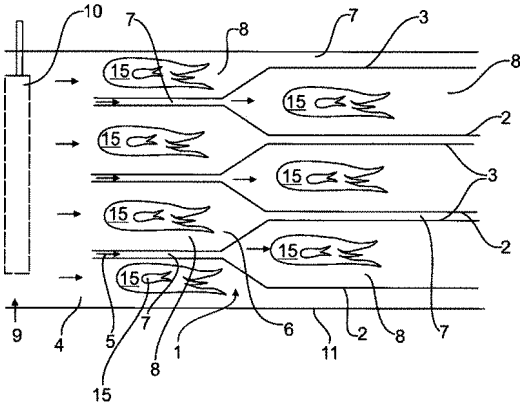
PRI DE 20111123 23.11.2011
102011119163

IC **F23D014/16** F01N003/10 F01N003/28 F01N003/025 F02M031/18 F22D001/26 H01M008/06

PA MAN Truck & Bus AG, 80995 Muenchen, DE

IN Doering, Andreas, 80339 Muenchen, DE

AB The burner device (1) comprises several flow channels (5,6) having flow cross-sections that change in the direction of flow. Each of the flow channels have a channel portion (7) with a smaller flow cross-sectional area, in which no ignition mixture flows through, and a channel portion (8) with a larger flow cross-sectional, in which an ignition mixture flows through. The channel portions of flow channels are arranged adjacent to each other. The channel walls of the flow channels comprise at least partially of angled metal foils (2,3).



TI **Method for determining conversion capability of oxidation catalyst of exhaust gas treatment device for internal combustion engine used in motor vehicle, involves determining reference amplitude of sensor signal by lambda probe**

PI DE 102011119214 A1 23.05. 2013

AI 102011119214 23.11.2011

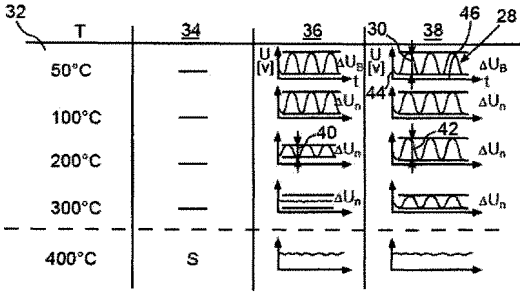
PRI DE 20111123 23.11.2011
102011119214

IC **F01N011/00**

PA Daimler AG, 70327 Stuttgart, DE

IN Busch, Michael-Rainer, 73061 Ebersbach, DE; Gysin, Till, 70192 Stuttgart, DE

AB The method involves operating the exhaust gas treatment device of internal combustion engine (10) at an air-fuel ratio which varies around a predetermined target value in a predetermined range. The reference amplitude (30) of sensor signal (28) is determined by lambda probes (18,20) at first temperature of oxidation catalyst (16). The reference amplitude is compared with amplitude (42) of the signal, which is determined at a secondary temperature of oxidation catalyst. The second temperature of oxidation catalyst is higher than the first temperature of oxidation catalyst.



TI **Exhaust gas purification device for cleaning exhaust gas flow of combustion engine of motor vehicle, has exhaust gas guide unit with catalytic unit, and storage unit arranged in direct heat transfer contact and adjacent to catalytic unit**

PI DE 102011119242 A1 23.05. 2013

AI 102011119242 22.11.2011

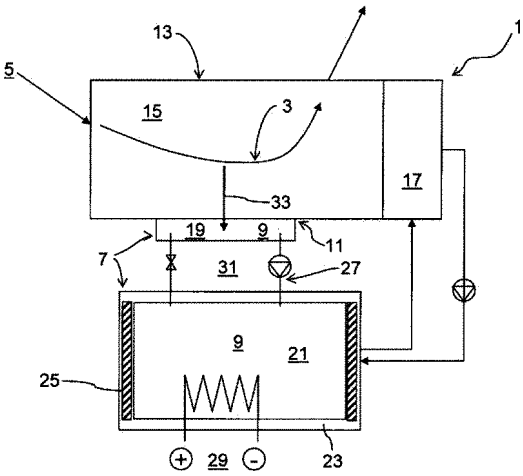
PRI DE 20111122 22.11.2011
102011119242

IC **F01N003/10** B01D053/94

PA Daimler AG, 70327 Stuttgart, DE

IN Jaeschke, Andrea, 70186 Stuttgart, DE; Schirmer, Martin, 71332 Waiblingen, DE; Thiemicke, Marcus, 71384 Weinstadt, DE; Hilss, Philipp, 7325 ...

AB The exhaust gas purification device (1) has a storage unit (7), by which a reducing agent (9) for selective catalytic reduction is stored. A heating unit (11) is provided for heating the storage unit. An exhaust gas guide unit (13) is provided for guiding the exhaust gas flow (3). The entire exhaust gas flow is directly bypassed to the storage unit by the exhaust gas guide unit. The exhaust gas guide unit comprises a catalytic unit (15) designed for carrying out selective catalytic reduction. The storage unit is arranged in direct heat transfer contact and adjacent to the catalytic unit. Independent claims are included for the following: (1) a method for operating an exhaust gas purificatio ...



TI **METHOD AND ARRANGEMENT FOR OPERATING AN INTERNAL COMBUSTION ENGINE**

PI DE 102011119389 A1 29.05. 2013

AI 102011119389 24.11.2011

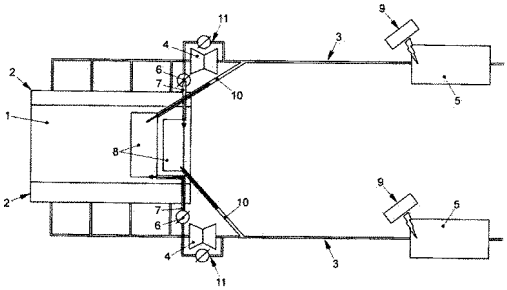
PRI DE 20111124 24.11.2011
102011119389

IC **F02G005/02** F01M005/02 F01N003/10 F02B075/16 F01P011/20

PA VOLKSWAGEN Aktiengesellschaft, 38436 Wolfsburg, DE

IN Kuehlmeyer, Jens, 38518 Gifhorn, DE

AB [WO 2013075771 A1] The invention relates to an arrangement and a method for operating an internal combustion engine (1), wherein a heat exchanger (8) for preheating a lubricant of the internal combustion engine (1) and a catalytic converter (5) are disposed in the exhaust gas line (3). In a cold start phase, at least a partial flow is withdrawn from the exhaust gas upstream of the exhaust gas turbocharger (4) and, therefore, upstream of the catalytic converter (5) via a supply line (7) that can be closed by a closure member (6). Said partial flow is fed to a heat exchanger (8) integrated in an oil sump of the internal combustion engine (1). To offset the reduction in thermal energy, the cat ...



TI **Flow-through honeycomb body, useful for catalyst or particle separator to purify exhaust gases of internal combustion engines, comprises honeycomb channels that are separated from each other by walls and formed by superimposed layers**

PI DE 102011119517 A1 29.05. 2013

AI 102011119517 25.11.2011

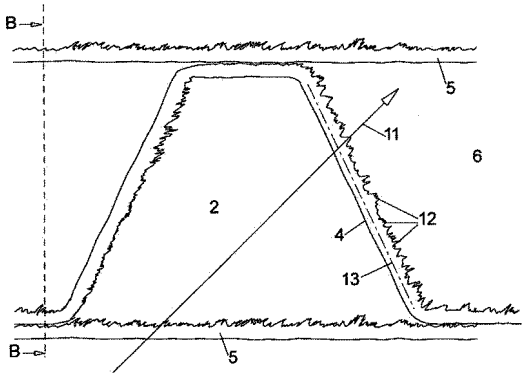
PRI DE 20111125 25.11.2011
102011119517

IC **F15D001/02** B01D053/94 F01N003/022 B21D047/04 B01J035/04 F01N003/021 F01N003/10

PA Oberland Mangold GmbH, 82438 Eschenlohe, DE

IN Mangold, Matthias, 82438 Eschenlohe, DE; Mangold, Christian, 82467 Garmisch-Partenkirchen, DE

AB The flow-through honeycomb body comprises honeycomb channels (2) that are separated from each other by walls and formed by superimposed layers of a curved metal sheet film (4) and optionally intermediate layers of a smooth metal sheet film (5). One of the front surfaces (6) of the honeycomb body is designed such that a pressure drop, when passing through the honeycomb body, is a factor of 1.05 and a maximum factor of 2.50 higher than the freely running front surfaces of the metal sheet films during the flow-through of the honeycomb body without changing. The flow-through honeycomb body comprises honeycomb channels (2) that are separated from each other by walls and formed by superimposed la ...



TI **Removal apparatus for removing unburned deposit in exhaust gas recirculation (EGR) flow passage of vehicle, has engine that is provided in high-load condition, when exhaust gas flows in EGR flow passage at deposit removal timing**

PI DE 102012022918 A1 29.05. 2013

AI 102012022918 23.11.2012

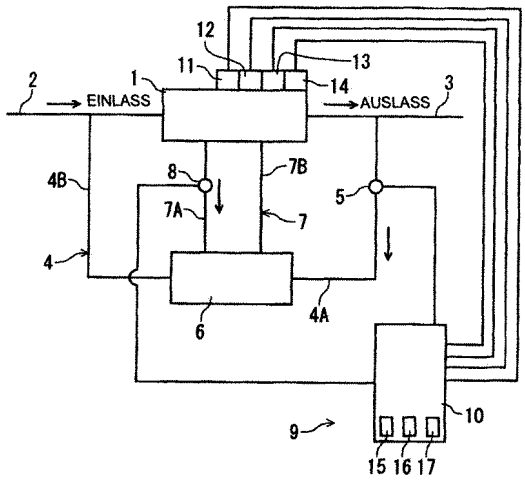
PRI JP 20111129 29.11.2011
201126030229

IC **F02D021/08** F02M025/07

PA SUZUKI MOTOR CORPORATION, Hamamatsu-shi, JP

IN Yamana, Shunsuke, Hamamatsu-shi, JP

AB The apparatus (9) has EGR flow passage (4) that is branched from exhaust portion. An EGR gas flow control valve (5) is provided to adjust flow rate of exhaust gas. An EGR cooler (6) is provided to cool exhaust gas. Temperature of cooling water is equal to or more than a temperature is determined by a control device (10). A deposit removal implementing unit is controlled to implement removal of deposits. The engine is provided in a high-load condition, when exhaust gas flows in EGR flow passage at deposit removal implementation timing is determined by control device.



TI **SYSTEM AND METHOD FOR CONTROLLING NOx**

PI DE 102012105625 A1 23.05. 2013

AI 102012105625 27.06.2012

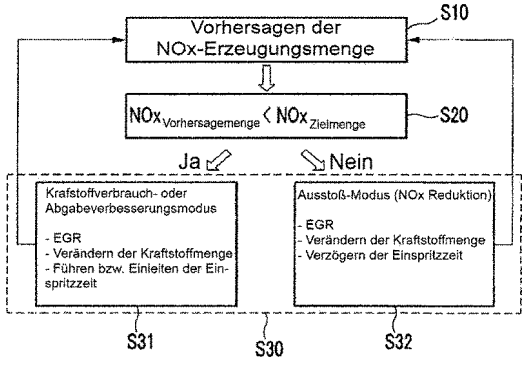
PRI KR 20111122 22.11.2011
1020110122438

IC **F02D041/14** F02D041/00 F01N011/00

PA Hyundai Motor Co., Seoul, KR; SNU R&DB Foundation, Seoul, KR

IN Yu, Jun, Suwon, KR; Nam, Kihoon, Gunpo, KR; Han, Kyoungchan, Hwaseong, KR; Min, Kyoung Doug, Seoul, KR; Lee, Junyong, Seoul, KR; Park, Wona ...

AB [US 2013131967 A1] A system and a method for controlling NOx may include predicting NOx generation amount by using a virtual sensor; comparing the NOx prediction amount with a predetermined NOx target amount; and controlling the NOx generation amount so as for the NOx prediction amount to follow the NOx target amount.



TI **SCR ON DIESEL PARTICULAR FILTER AND METHOD FOR PRODUCING THE SAME**

PI **DE 102012105822 A1** 29.05. 2013

AI 102012105822 02.07.2012

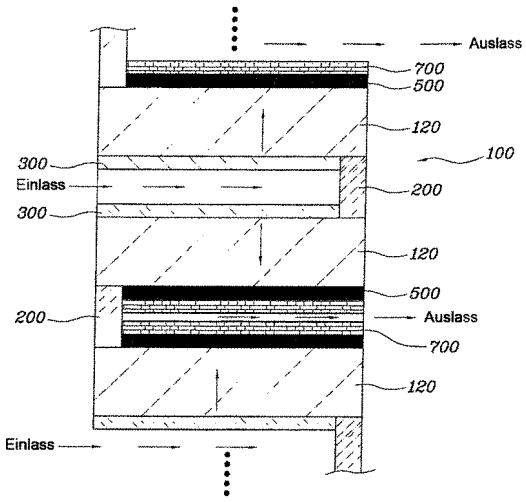
PRI KR 20111128 28.11.2011
1020110125045

IC **B01D053/94** F01N003/10 B01J023/38

PA Hyundai Motor Company, Seoul, KR

IN Choi, Sung Mu, Seongnam, KR; Lee, Hyo Kyung, Yongin, KR

AB [US 2013136662 A1] An SDPF (SCR on Diesel Particular Filter) includes a porous filter collecting PM (Particulate Materials) of diesel exhaust gas, an SCR (Selective Catalytic Reduction) catalyst layer coated on an exhaust gas inlet of the filter, an aluminum oxide layer coated on an exhaust gas outlet of the filter, and a precious metal catalyst layer coated on the surface of the aluminum oxide layer, and a method for producing the same.



TI **METHOD OF PREDICTING NOx GENERATION AMOUNT**

PI **DE 102012106929 A1** 23.05. 2013

AI 102012106929 30.07.2012

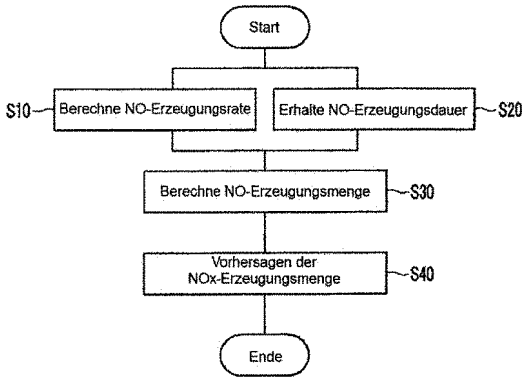
PRI KR 20111122 22.11.2011
1020110122437

IC **F01N003/18** F01N009/00

PA Hyundai Motor Co., Seoul, KR; SNU R&DB Foundation, Seoul, KR

IN Yu, Jun, Suwon, KR; Nam, Kihoon, Gunpo, KR; Han, Kyoungchan, Hwaseong, KR; Min, Kyoung Doug, Seoul, KR; Lee, Junyong, Seoul, KR; Park, Wona ...

AB [US 2013131954 A1] A method of predicting NOx generation amount may include calculating NO generation rate by using a combustion pressure of an engine and driving variables of the engine, obtaining NO generation period by using the combustion pressure of the engine, calculating NO generation amount based on the NO generation rate and the NO generation period, and predicting the NOx generation amount by obtaining NO2 generation amount based on a ratio between NO and NO2 according to the NO generation amount and a driving condition of the engine.



TI

PI **DE 102012109939 A1** 16.05. 2013

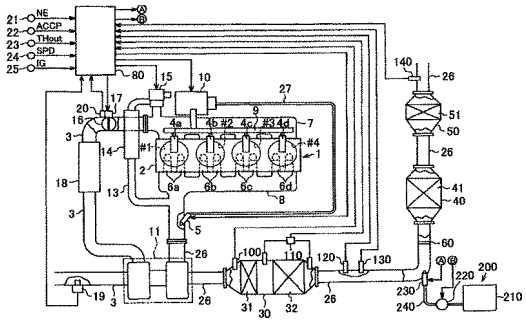
AI 102012109939 18.10.2012

PRI JP 20111114 2011248537 14.11.2011

IC **F01N009/00** F01N003/10

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, JP

IN Ota, Hirohiko, Toyota-shi, JP



AB

TI **Emission control system for reducing nitrogen oxide discharging from exhaust gas of diesel engine of vehicle, has determining section determining whether regeneration control is completed based air-fuel ratios of exhaust gas**

PI DE 102012110380 A1 02.05. 2013

AI 102012110380 30.10.2012

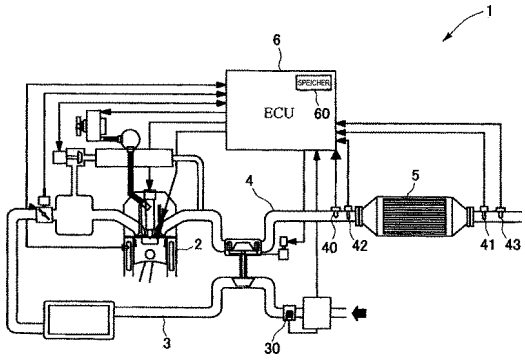
PRI JP 20111102 2011241039 02.11.2011

IC **F01N009/00**

PA DENSO CORPORATION, Kariya-city, JP

IN Umeda, Hiroaki, Kariya-city, JP

AB The system (1) has a catalytic converter section (5) arranged in an exhaust gas passage (4) of an internal combustion engine i.e. diesel engine (2), to occlude and reduce nitrogen oxide. A determining section determines whether a regeneration control is completed by a regeneration portion based on an air-fuel ratio of exhaust gas flowing upstream to the converter section and another air-fuel ratio of the exhaust gas flowing downstream to the converter section, where the latter air-fuel ratio is corrected by a correction portion during grease control. The emission control system has an estimation portion estimating hydrogen quantity based on carbon monoxide quantity and hydrocarbon quantity.



TI **Internal combustion engine, has mixing device comprising heating device formed by flow conducting surface that projects into concavely curved surface of mixing device, where concave surface forms separating edge at downstream end**

PI DE 102012111335 A1 29.05. 2013

AI 102012111335 23.11.2012

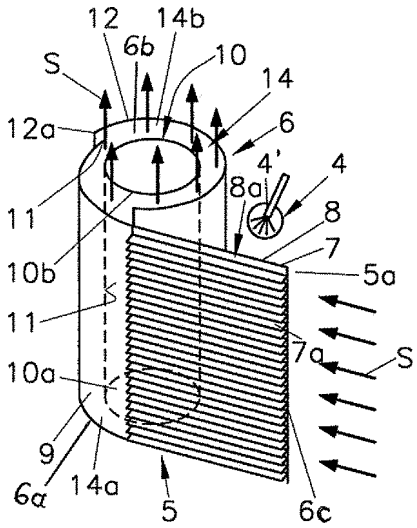
PRI AT 20111124 A1736/2011 24.11.2011

IC **F01N003/28** F01N003/10

PA AVL List GmbH, Graz, AT

IN Entlesberger, Robert-Gilles, Lieboch, AT; Salzgeber, Kurt, Lassnitzhoehe, AT; Almer, Werner, Stallhofen, AT

AB The engine (1) has an exhaust line (2), and an exhaust gas aftertreatment device (3) i.e. selective catalytic reduction-catalytic converter, arranged in the line. A metering device (4) is arranged upstream of the aftertreatment device and provided introducing additive into exhaust gas flow (S). A mixing device (5) has a heating device that is formed by a flow conducting surface for the exhaust gas flow. The conducting surface projects into a concavely curved conducting surface of the mixing device, where the concave surface forms a separating edge at a downstream end.



TI **EXHAUST TREATMENT METHODS AND SYSTEMS**

PI DE 102012219306 A1 02.05. 2013

AI 102012219306 23.10.2012

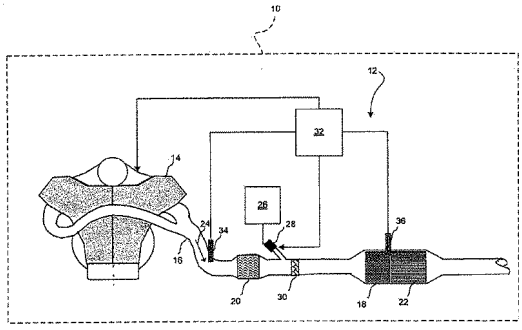
PRI US 20111028 61/552,748; US 20120828 13/596,245

IC **F01N011/00** F01N009/00

PA GM Global Technology Operations LLC (n. d. Gesetzen des Staates Delaware), Detroit, US

IN Kowalkowski, Janean E., Northville, US; Coppola, John, Canadice, US

AB [US 2013104637 A1] A control method for monitoring a selective catalytic reduction ("SCR") device is provided. A control method includes adjusting an existing efficiency threshold based on a dosing adaptation value to determine an efficiency threshold. The dosing adaptation value represents an adjusted value of a supply of reductant based on a determined deviation of a downstream NOx concentration value to an expected NOx concentration. The control method includes comparing the efficiency threshold with a determined efficiency of the SCR device. The control method includes generating a message based on comparing the efficiency threshold with the determined efficiency of the SCR device.



TI

PI **DE 102012219611 A1** 02.05. 2013

AI 102012219611 26.10.2012

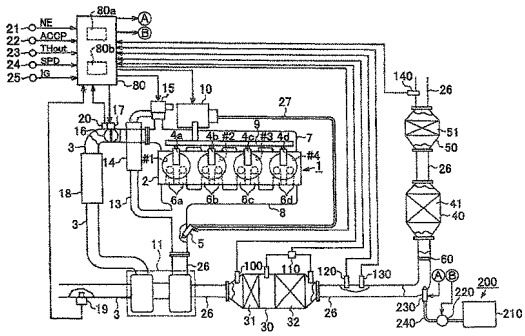
PRI JP 20111028 2011237537; JP 20111128 2011259353; JP 20111130 2011262409

IC **F01N009/00**

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Ota, Hirohiko, Toyota-shi, JP

AB [DE 102012219611 A1] The system has a reducing agent supply mechanism (200) comprising a supply passage (240) through which a liquid reducing agent i.e. ammonium, is passed into the exhaust gases. A collecting unit (220) collects the reducing agent from the supply passage. A controller (80) performs a collecting process by the collecting unit if exhaust gas temperature measured is equal to or lower than a predetermined temperature (A) after stopping of an engine. An additional valve (230) injects reducing agent into an exhaust gas passage (26).



TI

PI **DE 102012219612 A1** 02.05. 2013

AI 102012219612 26.10.2012

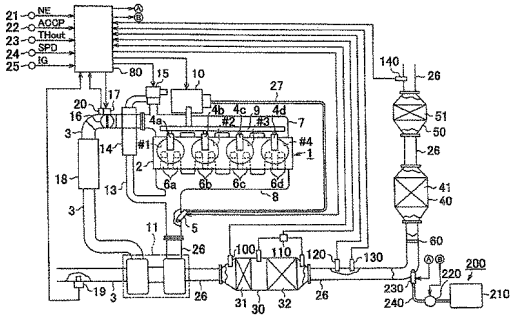
PRI JP 20111028 2011237537; JP 20111128 2011259353; JP 20111130 2011262409

IC **F01N009/00**

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Ota, Hirohiko, Toyota-shi, JP

AB [DE 102012219611 A1] The system has a reducing agent supply mechanism (200) comprising a supply passage (240) through which a liquid reducing agent i.e. ammonium, is passed into the exhaust gases. A collecting unit (220) collects the reducing agent from the supply passage. A controller (80) performs a collecting process by the collecting unit if exhaust gas temperature measured is equal to or lower than a predetermined temperature (A) after stopping of an engine. An additional valve (230) injects reducing agent into an exhaust gas passage (26).



TI

PI **DE 102012219613 A1** 02.05. 2013

AI 102012219613 26.10.2012

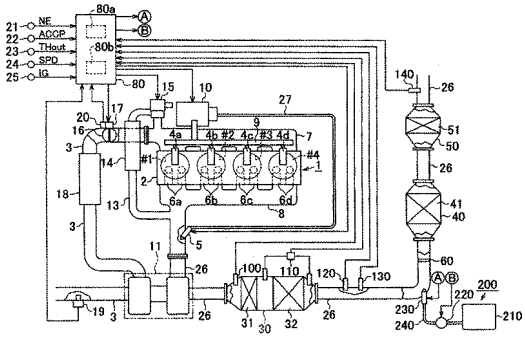
PRI JP 20111028 2011237537; JP 20111128 2011259353; JP 20111130 2011262409

IC **F01N009/00** F01N003/10

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Yokoi, Tatsuhisa, Toyota-shi, JP

AB [DE 102012219611 A1] The system has a reducing agent supply mechanism (200) comprising a supply passage (240) through which a liquid reducing agent i.e. ammonium, is passed into the exhaust gases. A collecting unit (220) collects the reducing agent from the supply passage. A controller (80) performs a collecting process by the collecting unit if exhaust gas temperature measured is equal to or lower than a predetermined temperature (A) after stopping of an engine. An additional valve (230) injects reducing agent into an exhaust gas passage (26).



TI **SYSTEM AND METHOD FOR DIAGNOSING FAULTS IN AN OXYGEN SENSOR**

PI **DE 102012219626 A1** 02.05. 2013

AI 102012219626 26.10.2012

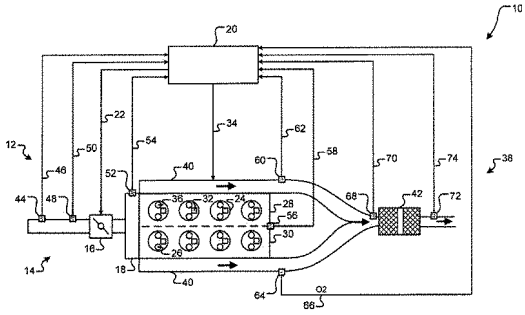
PRI US 20111101 13/286,717 01.11.2011

IC **F01N011/00**

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Levijoki, Stephen Paul, Swartz Creek, US; Majcher, Thomas J., Orchard Lake, US; Siekkinen, John W., Novi, US; Dokter, Michael John, Okemos, ...

AB [US 2013104626 A1] A system according to the principles of the present disclosure includes an error period module and a sensor diagnostic module. The error period module determines an error period based on an amount of time that a first air/fuel ratio and a desired air/fuel ratio are different. A first oxygen sensor generates a first signal indicating the first air/fuel ratio. The sensor diagnostic module diagnoses a fault in the first oxygen sensor when the error period is greater than a predetermined period.



TI **LOW COST LEAN NOx REDUCTION CATALYST SYSTEM**

PI **DE 102012219751 A1** 23.05. 2013

AI 102012219751 29.10.2012

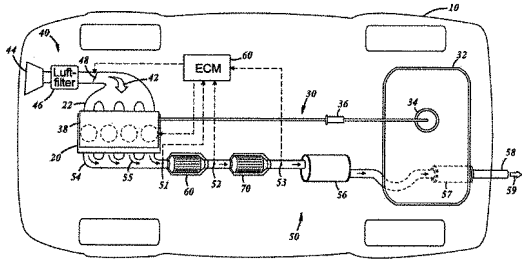
PRI US 20111103 13/288,215 03.11.2011

IC **B01D053/94** F01N003/20 F01N003/08 F01N003/10 B01J023/83

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Qi, Gongshin, Troy, US; Li, Wei, Troy, US

AB [US 2013111876 A1] An exhaust aftertreatment system that includes a suitable combination of particulate catalyst materials is used to effectively reduce an amount of NOX to N2 and water in a high-oxygen content exhaust flow from an engine that is controlled to operate by cyclically burning lean and rich mixtures of air and fuel. The catalyst materials of the exhaust aftertreatment system comprise (1) lanthanum-based perovskite oxide particles to oxidize NO to NO2, (2) barium oxide particles to temporarily store NO2, (3) copper oxide nanoparticles chemically deposited onto particles of cerium oxides to reduce NOX to N2 and to generate NH3, and (4) particles of a selective reduction catalyst ...



TI

PI **DE 102012219767 A1** 08.05. 2013

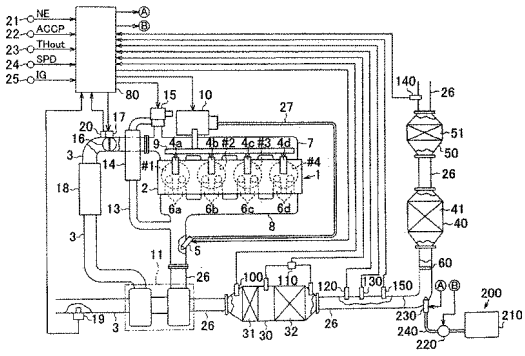
AI 102012219767 29.10.2012

PRI JP 20111107 2011243698 07.11.2011

IC **F01N011/00** F01N003/10 F01N009/00

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Ota, Hirohiko, Toyota-shi, JP



AB

TI **Electronically Heated NOx Adsorber Catalyst**

PI **DE 102012220016 A1** 08.05. 2013

AI 102012220016 02.11.2012

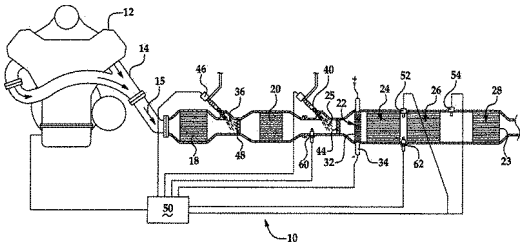
PRI US 20111107 13/290,671 07.11.2011

IC **F01N009/00** F01N003/10 F01N003/027

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Paratore Jr., Michael J., Howell, US; Solbrig, Charles E., Ypsilanti, US

AB [US 2013111886 A1] An exhaust gas treatment system for an internal combustion engine is provided, and includes an exhaust gas conduit, an upstream selective catalytic reduction ("SCR") device, an electrically heated catalyst ("EHC") device, an oxidation catalyst ("OC") device, a downstream SCR device, and a control module. The EHC device is in fluid communication with the exhaust gas conduit and is configured to receive the exhaust gas. The EHC device is located downstream of the upstream SCR device and is selectively activated to produce heat. The OC device is in fluid communication with the exhaust gas conduit, and is selectively heated by the EHC device. At least one of the EHC device an ...



TI **ENGINE ASSEMBLY INCLUDING EXHAUST PORT SEPARATION FOR TURBINE FEED**

PI **DE 102012220085 A1** 16.05. 2013

AI 102012220085 05.11.2012

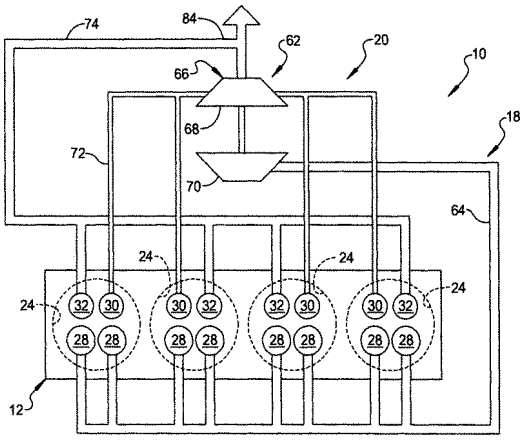
PRI US 20111109 13/292,611 09.11.2011

IC **F02D013/02** F02D009/04 F02D023/00 F01N009/00 F02B029/00 F01L001/344 F02B037/12 F02D041/06

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Straub, Robert D., Lowell, US

AB [US 2013111899 A1] An engine assembly may include an engine structure, first and second exhaust gas conduits, a turbine and a flow control mechanism. The engine structure may define a first cylinder and first and second exhaust ports in communication with the first cylinder. The first exhaust gas conduit may be in fluid communication with the first exhaust port. The second exhaust gas conduit may be in fluid communication with the second exhaust port. The turbine may be in fluid communication with the first exhaust gas conduit. The flow control mechanism may prevent the exhaust gas from the first cylinder from flowing through the second exhaust gas conduit during a first mode and may allow ...



TI **CATALYTIC CONVERTER**

PI **DE 102012220172 A1** 16.05. 2013

AI 102012220172 06.11.2012

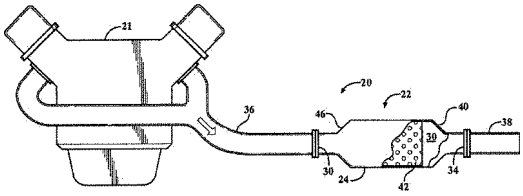
PRI US 20111110 13/293,438 10.11.2011

IC **F01N003/28**

PA GM Global Technology Operations LLC (n. d. Gesetzen des Staates Delaware), Detroit, US

IN Pimpalgaonkar, Hrushikesh G., Bangalore, IN; Pant, Atul, Bangalore, IN

AB [US 2013121887 A1] A catalytic converter includes a housing defining an interior space, with a monolith supported therein. The monolith includes a catalyst disposed thereon. The catalytic converter includes a flow directing mechanism defined by one of the housing and/or the monolith to re-direct a flow of exhaust gas across the monolith to obtain a more even flow distribution of exhaust gas across the monolith. The monolith may include different regions, with each region including a different catalyst density disposed thereon. The catalyst density of each region may be optimized for the flow rate of exhaust gas across the monolith through each region.



TI **SYSTEMS AND METHODS FOR AN EXHAUST GAS TREATMENT SYSTEM**

PI **DE 102012220211 A1** 16.05. 2013

AI 102012220211 07.11.2012

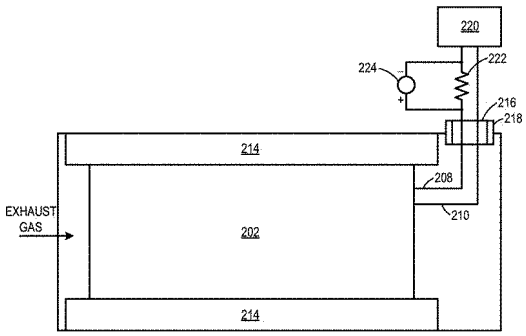
PRI US 20111110 13/293,873 10.11.2011

IC **F01N011/00**

PA Ford Global Technologies, LLC, Dearborn, US

IN Sloss, Jeffrey David, Grosse Pointe Park, US

AB [US 2013118149 A1] Various systems and methods are provided for an exhaust gas treatment system. In one example, a system includes an exhaust gas treatment device and a wire wrapped around an exterior circumference of the exhaust gas treatment device. Continuity of the wire is monitored such that degradation of the wire due to degradation of the exhaust gas treatment device is indicated.



TI **NOx FEEDBACK FOR COMBUSTION CONTROL**

PI **DE 102012220527 A1** 16.05. 2013

AI 102012220527 12.11.2012

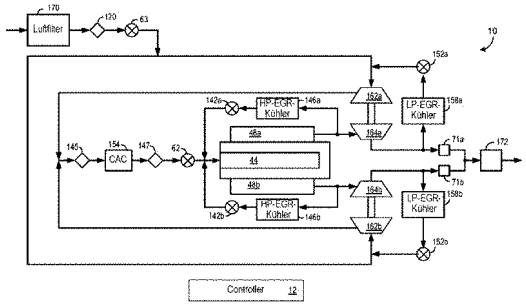
PRI US 20111114 13/295,648 14.11.2011

IC **F02D021/08** F01N003/08 F02M025/07

PA Ford Global Technologies, LLC, Dearborn, US

IN Mitchell, Peter, Birmingham, US; Riffle, Chris, Brighton, US; Nieuwstadt, Michiel J. van, Ann Arbor, US; Korpics, Frank M., Belleville, US; ...

AB [US 2013118461 A1] A method for controlling combustion in an engine is provided. The method comprises under a first condition, adjusting an EGR amount of a total cylinder charge in response to engine out NOx levels being below a first threshold. In this way, NOx levels may be used as feedback to control combustion stability.



TI **EXHAUST SYSTEM FOR INTERNAL COMBUSTION ENGINE**

PI **DE 102012220536 A1** 16.05. 2013

AI 102012220536 12.11.2012

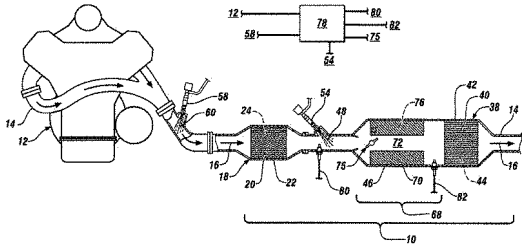
PRI US 20111115 13/296,423 15.11.2011

IC **F01N009/00** F01N003/10

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Paratore jun., Michael J., Howell, US; Bedford, Joshua Clifford, Farmington Hills, US

AB [US 2013118150 A1] In an exemplary embodiment of the invention an exhaust gas after treatment system for an internal combustion engine comprises an exhaust gas conduit configured to transport exhaust gas from the internal combustion engine to exhaust treatment devices of the exhaust gas treatment system. A controller in signal communication with the exhaust gas aftertreatment system is configured to monitor the temperature of a selective catalytic reduction device, wherein the controller is operable to move a valve assembly to an open position when the selective catalytic reduction device is at or above an operating temperature and to move the valve assembly to a closed position when the se ...



TI **METHOD FOR CONTROLLING REGENERATION WITHIN AN AFTER-TREATMENT COMPONENT OF A COMPRESSION-IGNITION ENGINE**

PI **DE 102012220624 A1** 23.05. 2013

AI 102012220624 13.11.2012

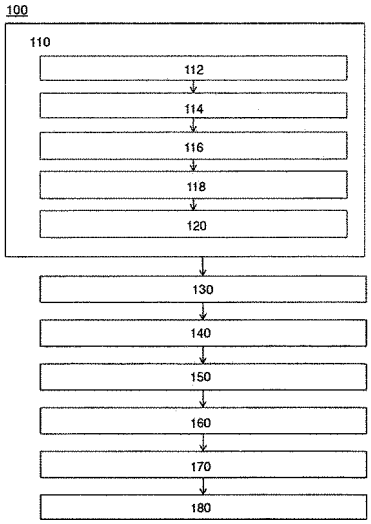
PRI US 20111117 13/298,470 17.11.2011

IC **F01N009/00** F01N011/00

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Ardanese, Michelangelo, Royal Oak, US; Darr, Rebecca J., Milford, US; Ardanese, Raffaello, Troy, US; Jasinkiewicz, Paul, Northville, US; Su ...

AB [US 2013125529 A1] A method for controlling regeneration within an after-treatment component of a compression-ignition engine comprises calculating an initial estimate of accumulated particulate matter based on a pressure-based soot accumulation model and a pressure drop index indicative of a decrease in pressure across the component. An adjusted estimate of accumulated particulate matter in the component is calculated based on the initial estimate and a soot prediction error inherent in the soot model. The adjusted estimate is compared to a predetermined threshold associated with the after-treatment component, and a remedial action is initiated when the adjusted estimate of accumulated par ...



TI **BYPASS HC - NOX ADSORBER STRATEGY**

PI **DE 102012221085 A1** 23.05. 2013

AI 102012221085 19.11.2012

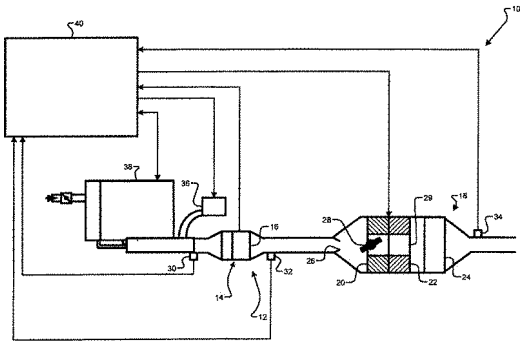
PRI US 20111122 13/302,652 22.11.2011

IC **F01N009/00** F01N003/08

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Santoso, Halim G., Novi, US

AB [US 2013125530 A1] A bypass HC-NOx system includes a NOx conversion control module that generates a signal indicating whether a close coupled catalyst is active. The system further includes a bypass valve control module that, in response to the signal, opens a bypass valve located in an active HC-NOx adsorber assembly to purge hydrocarbons from an HC adsorber, wherein the bypass valve is located upstream from the HC adsorber and a NOx adsorber. The bypass valve control module also determines a temperature of a three way catalyst and closes the bypass valve to purge nitrogen dioxide from the NOx adsorber if the temperature of the three way catalyst is greater than a predetermined temperature ...



TI **ELECTRICALLY HEATED PARTICULATE FILTER RESTRIKE METHODS AND SYSTEMS**

PI **DE 102012221087 A1** 23.05. 2013

AI 102012221087 19.11.2012

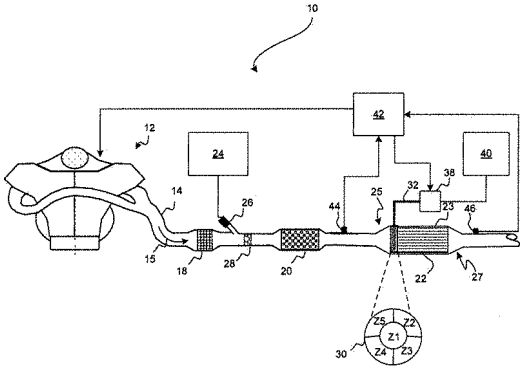
PRI US 20111122 13/302,225 22.11.2011

IC **F01N009/00** F01N003/027

PA GM Global Technology Operations LLC (n.d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Paratore Jr., Michael J., Howell, US

AB [US 2013125534 A1] A method of regenerating a particulate filter that includes an electric heater is provided. The method includes determining a location of particulate matter that remains within at least one region of the particulate filter based on a regeneration event being extinguished; and selectively controlling current to a zone of a plurality of zones of the electric heater to initiate a restrike of the regeneration event based on the location of particulate matter.



TI **Detection of soot burn in a vehicle**

PI **DE 102012221337 A1** 29.05. 2013

AI 102012221337 22.11.2012

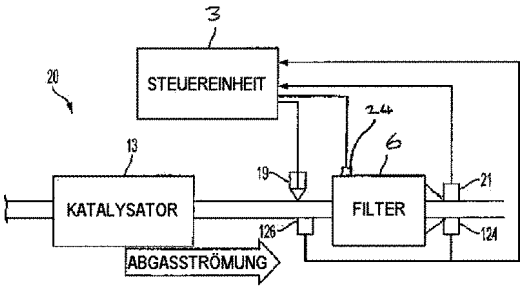
PRI GB 20111124 1120267.8 24.11.2011

IC **F01N009/00**

PA Ford Global Technologies, LLC, Dearborn, US

IN Ford, Kim, Basildon, GB; Wright, James, London, GB; Bromham, Jim, Trowbridge, GB; Opolsky, Norman Hiam, West Bloomfield, US; Donnelly, Jame ...

AB [GB 2496876 A] A method of controlling soot burn in a diesel particulate filter (DPF) of a vehicle comprises deriving a gradient value from a change in a measured pressure difference across the DPF, and controlling regeneration of the DPF in response to the derived gradient value. Differential pressure may be measured by respective downstream and upstream pressure sensors. Preferably, the pressure difference normalized by dividing by the corresponding measured volume flow of exhaust gas through the DPF.



TI **REGENERATION DIAGNOSTIC METHODS AND SYSTEMS**

PI **DE 102012221363 A1** 29.05. 2013

AI 102012221363 22.11.2012

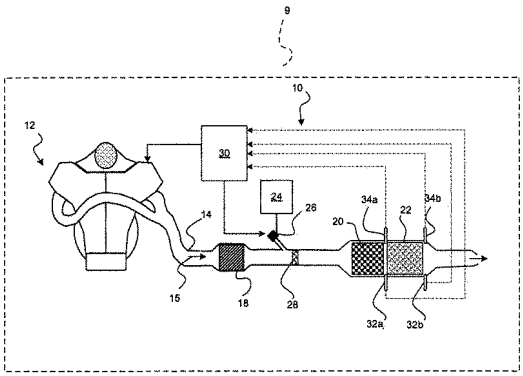
PRI US 20111128 13/304,995 28.11.2011

IC **F01N011/00** F01N009/00

PA GM Global Technology Operations LLC (n. d. Ges. d. Staates Delaware), Detroit, US

IN Liu, Zhiping Steven, Canton, US; Gonze, Eugene V., Pinckney, US; Kowalkowski, Janean E., Northville, US

AB [US 2013138291 A1] A method of monitoring an exhaust treatment system of a vehicle is provided. The method includes: determining a modeled resistance of exhaust flow in the exhaust treatment system; determining a measured resistance of exhaust flow in the exhaust treatment system; evaluating the modeled resistance and the measured resistance to determine a fault status; and generating at least one of a warning signal and a message based on the fault status.



TI **POWER SYSTEM AND METHOD FOR ENERGIZING AN ELECTRICALLY HEATED CATALYST**

PI **DE 102012221364 A1** 29.05. 2013

AI 102012221364 22.11.2012

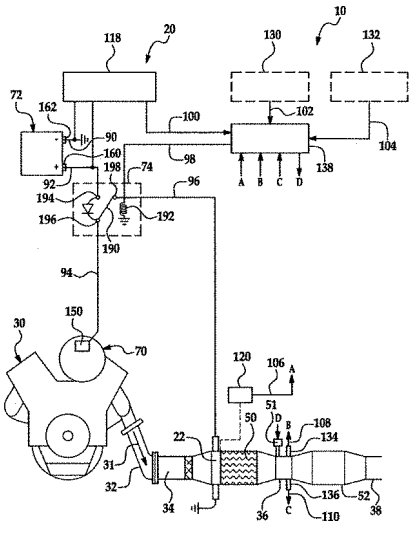
PRI US 20111128 13/304,802 28.11.2011

IC **F01N009/00** F01N003/28 B60W010/26

PA GM Global Technology Operations LLC (n. d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Solbrig, Charles E., Ypsilanti, US; Paratore Jr., Michael J., Howell, US

AB [US 2013133307 A1] A power system and a method for energizing an electrically heated catalyst are provided. The system includes a controller that generates a first control signal to set a switching device to a first operational state if the first temperature level downstream of the catalyst is less than a threshold temperature level and the engine is being decelerated. The controller further generates a second control signal to induce a generator to output a second voltage if the first temperature level is less than the threshold temperature level and the engine is being decelerated, such that the second voltage is applied through the switching device in the first operational state to the c ...



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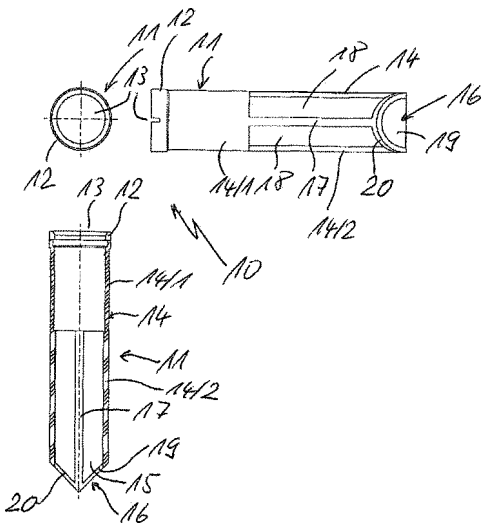
PI **DE 202011109523 U1** 16.05. 2013
AI 202011109523 21.12.2011
PRI DE 20111221 21.12.2011
202011109523
IC **B01D035/02** F01N003/10 B60K015/04 F02M037/22
PA Reutter GmbH, 71397 Leutenbach, DE
IN



AB
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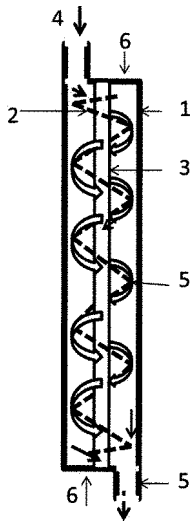
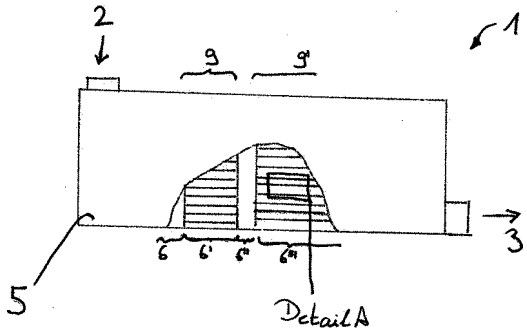
PI **DE 202013001264 U1** 16.05. 2013
AI 202013001264 13.02.2013
PRI DE 20130213 13.02.2013
202013001264
IC **F01N001/12**
PA Strebe, Juergen, 17509 Lubmin, DE
IN



AB
TI

PI **DE 202013002596 U1** 16.05. 2013
AI 202013002596 18.03.2013
PRI DE 20121210 202012011813.7
IC **F01N003/28**
PA Liebherr-Machines Bulle S.A., Bulle, CH; Liebherr-Werk Ehingen GmbH, 89584 Ehingen, DE
IN



AB

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PI **DE 202013100716 U1** 02.05. 2013

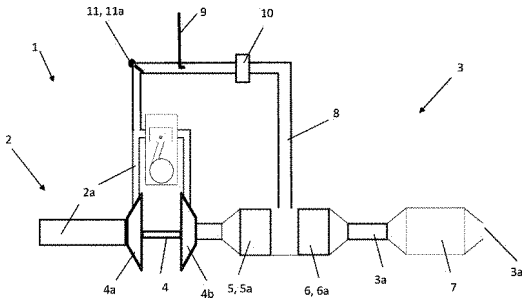
AI 202013100716 18.02.2013

PRI DE 20130215 102013202496.7; DE 20130215 102013202497.5

IC **F01N003/10** F01N003/30 F01N003/28

PA Ford Global Technologies, LLC., Detroit, US

IN



AB

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PI **DE 202013101028 U1** 08.05. 2013

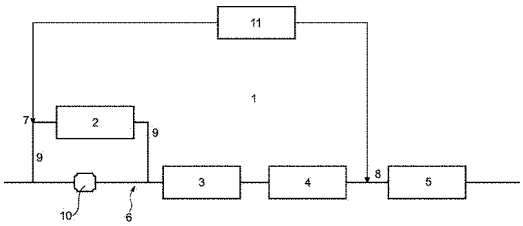
AI 202013101028 08.03.2013

PRI DE 20130307 102013203875.5; DE 20130307 102013203876.3

IC **F01N003/10**

PA Ford Global Technologies, LLC., Detroit, US

IN



AB

TI **USE OF AN NOX-REDUCING CATALYST SYSTEM BASED ON A MIXED CERIUM OXIDE**

PI **EP 02582450 A1** 24.04. 2013

AI 11736125 16.06.2011

PRI FR 20100616 1054780 16.06.2010

IC **B01D053/94**

PA Saint-Gobain Centre De Recherches Et D etudes Europeen, 92400 Courbevoie, FR; Centre National de la Recherche Scientifique, 75794 Paris Ced ...

IN PRINCIVALLE, Agnes, F-84800 Lagnes, FR; VERNOUX, Philippe, F-69270 Rochetaillee Sur Saone, FR; HADJAR, Abdelkader, F-69008 Lyon, FR; GUIZAR ...

AB [US 2013136676 A1] The present invention relates to the use, for the reduction of oxidizing contaminating entities of the NOx type, in particular NO2, present in a gas to be purified, of a catalytic system comprising or composed of an oxide corresponding to the molar formulation: Ce1-y-zO2-xMyNz, in which: Ce is cerium, M is an element chosen from: Gd, Y, Sc, Sm, La, Pr, Nd, Er or Tb, y is between 0.01 and 0.4, N is an element having several degrees of valency chosen from: Ti, V, Cr, Mn, Fe, Co, Ni or Cu, z is less than 0.4, x is greater than 0.05.

2. Utilisation d'un système catalytique selon la revendication 1, dans lequel y est compris entre environ 0,1 et environ 0,3 et dans lequel z = 0.

3. Utilisation d'un système catalytique selon la revendication 2, dans lequel l'oxyde répond à la formule $Ce_{1-y}O_{2-x}M_y$, et dans lequel y est compris entre environ 0,1 et environ 0,3.

TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF HC DOSING SYSTEMS FOR EXHAUST CLEANING**

PI **EP 02582932 A1** 24.04. 2013

AI 11798459 20.06.2011

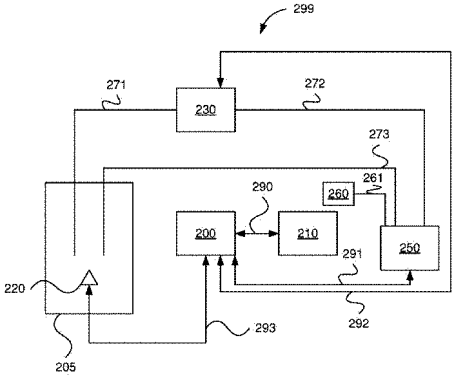
PRI SE 20100621 1050643 21.06.2010

IC **F01N003/025** F01N003/36 F01N009/00 F01N011/00

PA Scania CV AB, 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013111880 A1] A method for cooling a dosing unit pertaining to an HC dosing system for exhaust cleaning. The unit includes a dosing unit (250) for fuel and a feed device (230) for fuel for cooling the fuel dosing unit (250) using fuel supplied to it, and running the feed device (230) to supply coolant fuel at reduced power. Also a computer program product containing program code (P) for implementing the method. Also an HC dosing system and a motor vehicle equipped with the system.



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF HC DOSING SYSTEMS FOR EXHAUST CLEANING**

PI **EP 02582933 A1** 24.04. 2013

AI 11798461 20.06.2011

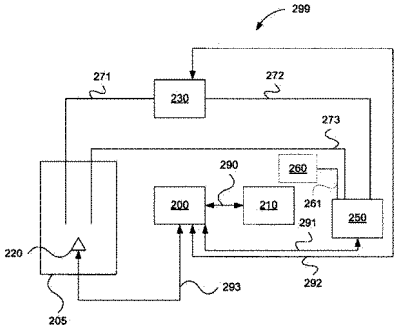
PRI SE 20100621 1050647 21.06.2010

IC **F01N003/025** F01N003/36 F01N009/00 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013186068 A1] A method pertaining to an HC dosing system for exhaust cleaning for an engine which comprise a dosing unit (250) for fuel. After cessation of an exhaust flow, deciding about a need to cool the fuel dosing unit by use of fuel. Predicting a temperature pattern of the dosing unit (250) as a basis for deciding. Predicting whether a predetermined temperature of the dosing unit (250) will be reached after exhaust flow cessation. Also a computer programme product containing programme code (P) for implementing the method. Also an HC dosing system and a motor vehicle which is equipped with the HC dosing system are disclosed.



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF HC DOSING SYSTEMS FOR EXHAUST CLEANING**

PI **EP 02582934 A1** 24.04. 2013

AI 11798464 20.06.2011

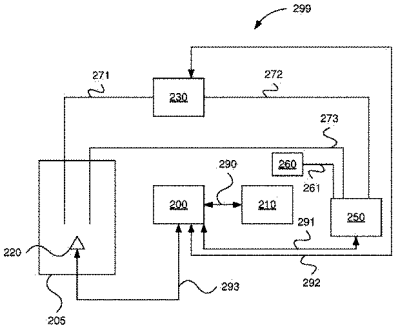
PRI SE 20100621 1050644 21.06.2010

IC **F01N003/025** F01N003/36 F01N009/00 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013111881 A1] A method for cooling a dosing unit (250) pertaining to HC dosing system for exhaust cleaning. The dosing unit (250) for fuel and a feed device (230) to supply fuel for cooling. The steps include cooling a fuel dosing unit (250) by fuel supplied to intermittently, in mutually successive respective periods of zero operating power of the feed device, or running at certain operating powers by running a fuel feed device (230) at reduced power compared with ordinary operation. A computer programme product containing programme code (P) for a computer (200; 210; 500) for implementing the method. An HC dosing system. A motor vehicle equipped with the system.



TI **METHOD PERTAINING TO AIR REMOVAL FROM A HC DOSING SYSTEM AND A HC DOSING SYSTEM**

PI **EP 02582935 A1** 24.04. 2013

AI 11798466 20.06.2011

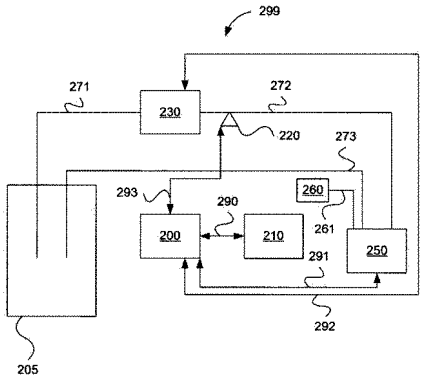
PRI SE 20100621 1050646 21.06.2010

IC **F01N003/025** F01N003/36 F01N011/00 F01N003/20 F01N009/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN ERIKSSON, Lars, S-153 38 Jaerna, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE

AB [US 2013111884 A1] A method pertaining to an HC dosing system wherein fuel from a container (205) is supplied to a feed device which supplies to at least one consumption point (250). Determining presence of air supplied upstream of the feed device (230). When such presence is found reducing an operating power of the feed device (230) compared with its ordinary operation. A computer programme product containing programme code (P) for a computer (200; 210) for implementing the method. Also an HC dosing system and a motor vehicle (100) which is equipped with the HC dosing system are disclosed.



TI **METHOD PERTAINING TO HC DOSING SYSTEMS AND DEVICE OF HC DOSING SYSTEMS**

PI **EP 02582936 A1** 24.04. 2013

AI 11798468 20.06.2011

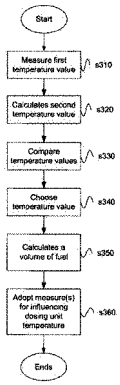
PRI SE 20100621 1050652 21.06.2010

IC **F01N003/025** F01N011/00 F01N003/20

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; ARVIDSSON, Daniel, S-139 32 Vaermdoe, SE

AB [US 2013111885 A1] A method pertaining to an HC dosing system for cleaning exhaust gases from an engine (150). A dosing unit supplies fuel to an exhaust duct (240): Determining (s340) whether there is an undesired temperature level of the dosing unit. If that is found, removing (s360) warmed fuel from the dosing unit (250) by supplying it to the vehicle s exhaust duct (240), entailing calculating (s350) and removing an amount of fuel based on a prevailing temperature of the dosing unit (250), or removing (s360) a predetermined amount in the form of substantially all of the warmed fuel of the dosing unit and transmitting it to the exhaust duct. Also computer programme product containing prog ...



TI **DEVICE FOR CONVEYING LIQUID REDUCING AGENT**

PI **EP 02582937 A1** 24.04. 2013

AI 11724621 08.06.2011

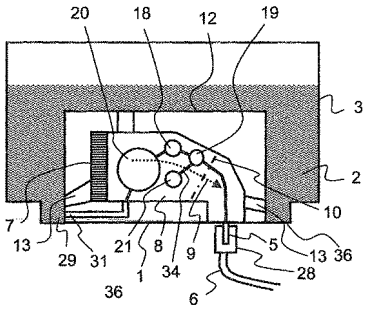
PRI DE 20100616 102010024022 16.06.2010

IC **F01N003/20**

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN BRUeCK, Rolf, 51429 Bergisch Gladbach, DE; HODGSON, Jan, 53840 Troisdorf, DE; SCHEPERS, Sven, 53844 Troisdorf, DE

AB [WO 2011157602 A1] The invention relates to a device (1) for conveying a liquid reducing agent (2) from a tank (3) to a supply element (4), said device having a connection element (5) for connecting a reducing agent (6), a system heating unit (7) and a heat-conducting structure (8) that is designed to transport heat from the system heating unit (7) to the connection element (5).



TI **DEVICE FOR PREPARING A REDUCING AGENT, COMPRISING A SYSTEM HEATING UNIT**

PI **EP 02582938 A1** 24.04. 2013

AI 11725420 09.06.2011

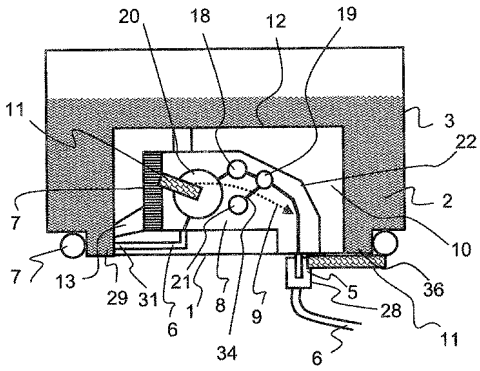
PRI DE 20100616 102010024021 16.06.2010

IC **F01N003/20**

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN BRUeCK, Rolf, 51429 Bergisch Gladbach, DE; HODGSON, Jan, 53840 Troisdorf, DE; SCHEPERS, Sven, 53844 Troisdorf, DE

AB [US 2013098006 A1] A device for providing a reducing agent for an exhaust gas system includes a system heating unit for heating a reducing agent and at least one heat conduction element transmitting heat from the system heating unit to at least one of the following components: a tank, a delivery line, a filter, a pump, a valve or a sensor. A thermal heating method using a heat pipe and a motor vehicle having the device are also provided.



TI **INJECTION AND METERING DEVICE**

PI **EP 02582939 A1** 24.04. 2013

AI 11730237 16.05.2011

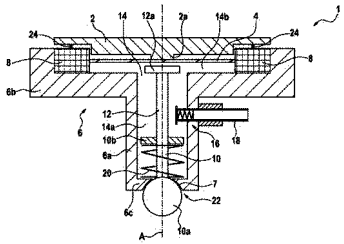
PRI DE 20100616 102010030162 16.06.2010

IC **F01N003/20**

PA Robert Bosch GmbH, 70442 Stuttgart, DE

IN LOESCH, Stefan, 86647 Wortelstetten, DE

AB [WO 2011157502 A1] The invention relates to an injection and dosing device (1), in particular for injecting a fluid into an exhaust tract of a combustion engine, comprising a compression and injection space (14), which is designed to receive the fluid to be injected and has at least one injection opening (22); a movable pressure element (4), which is designed such that the pressure in the compression and injection space (14) can be varied by moving the pressure element (4) between an intake position, in which the pressure in the compression and injection space (14) is at a minimum, and an injection position, in which the pressure in the compression and injection space (14) is at a maximum; ...



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF SCR SYSTEMS**

PI **EP 02582940 A1** 24.04. 2013

AI 11798454 17.06.2011

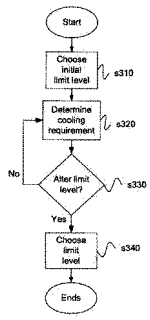
PRI SE 20100621 1050653 21.06.2010

IC **F01N003/20** F01N009/00 F01N011/00

PA Scania CV AB, 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; ARVIDSSON, Daniel, S-139 32 Vaermdoe, SE

AB [US 2013133310 A1] A method pertaining to an SCR system which includes a dosing unit (250) to supply reducing agent to an exhaust duct (240) for exhaust cleaning, and a container for reducing agent: the steps of determining (s320) a cooling requirement of the dosing unit (250) and choosing (s340) a limit level for reducing agent in the container (205) on the basis of the cooling requirement. A computer programme product containing programme code (P) implements a method according to the invention. A device of an SCR system includes a dosing unit (250) to supply reducing agent to an exhaust duct (240) for exhaust cleaning. A motor vehicle (100) is equipped with the device.



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF SCR SYSTEMS**

PI **EP 02582941 A1** 24.04. 2013

AI 11798458 20.06.2011

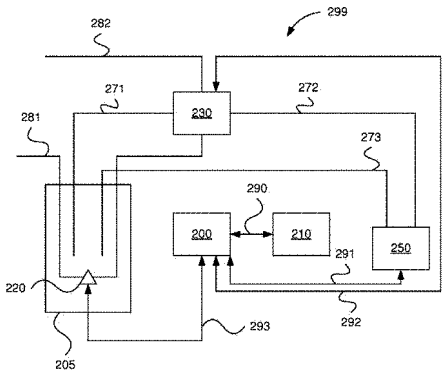
PRI SE 20100621 1050642 21.06.2010

IC **F01N003/20** F01N009/00 F01N011/00

PA Scania CV AB, 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013186069 A1] A method pertaining to an SCR system for exhaust cleaning, includes deciding about a need, after cessation of an exhaust flow, to cool a reducing agent dosing unit (250) by a reducing agent supplied to it, and includes predicting a temperature pattern of the dosing unit (250) as a basis for deciding about the need and predicting whether a predetermined temperature of the dosing unit will be reached after cessation of exhaust flow. Also a computer programme product containing programme code (P) for implementing the method, an SCR system and a motor vehicle which is equipped with the SCR system are disclosed.



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF SCR SYSTEMS**

PI **EP 02582942 A1** 24.04. 2013

AI 11798460 20.06.2011

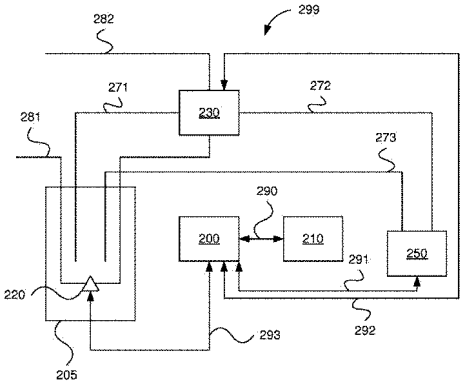
PRI SE 20100621 1050638 21.06.2010

IC **F01N003/20** F01N009/00 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013118153 A1] A method for cooling a dosing unit (250) pertaining to an SCR system for exhaust cleaning, wherein after cessation of exhaust flow, cooling a reducing agent dosing unit (250) by a reducing agent supplied to it. Also running a feed device to supply the coolant reducing agent at reduced power, compared with ordinary operation. A computer programme product containing programme code (P) for a computer (200; 210) implements a method of the invention. Also an SCR system and a motor vehicle which is equipped with the SCR system are disclosed.



TI **METHOD AND DEVICE PERTAINING TO COOLING OF DOSING UNITS OF SCR SYSTEMS**

PI **EP 02582943 A1** 24.04. 2013

AI 11798462 20.06.2011

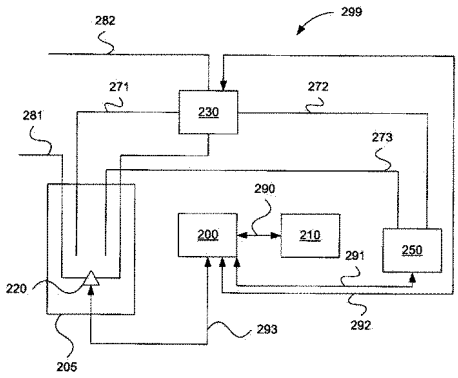
PRI SE 20100621 1050639 21.06.2010

IC **F01N003/20** F01N009/00 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; ERIKSS ...

AB [US 2013104527 A1] A method for cooling a dosing unit (250) pertaining to an SCR system for exhaust cleaning: after cessation of exhaust flow, cooling a reducing agent dosing unit (250) by reducing agent supplied to the unit. Intermittently running a feed device (230) to supply reducing agent, and running the feed device (230) at reduced power compared with its ordinary operation. Also a computer programme product containing programme code (P) for a computer (200; 210) for implementing the method. Also an SCR system and a motor vehicle (100; 110) which is equipped with the SCR system are disclosed



TI **METHOD PERTAINING TO AIR REMOVAL FROM A DOSING SYSTEM AT AN SCR SYSTEM AND AN SCR SYSTEM**

PI **EP 02582944 A1** 24.04. 2013

AI 11798463 20.06.2011

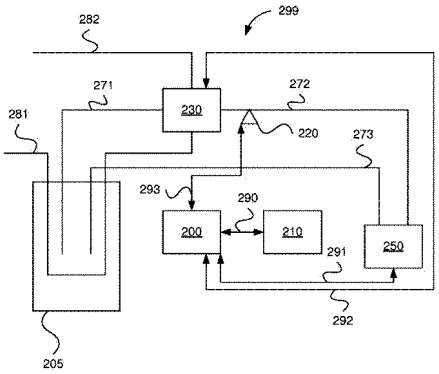
PRI SE 20100621 1050641 21.06.2010

IC **F01N003/20** F01N011/00 F01N009/00

PA Scania CV AB, 151 87 Soedertaelje, SE

IN ERIKSSON, Lars, S-153 38 Jaerna, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE

AB [US 2013111882 A1] A method pertaining to an SCR system in which reducing agent in liquid form is supplied to a feed device (230) and via which feed device reducing agent is supplied to at least one consumption point (250) from a container (205): the steps of continuously detecting the feed pressure (P) which the feed device (230) furnishes, and controlling the operation of the feed device (230) on the basis of changes (P) in the feed pressure (P), with the object of reducing the impact of unwanted air supply at the feed device (230). Also pertaining to a computer programme product containing programme code (P) for a computer (200; 210) for implementing a method according to the invention. ...



TI **METHOD AND DEVICE PERTAINING TO DOSING UNIT OF SCR SYSTEM**

PI **EP 02582945 A1** 24.04. 2013

AI 11798469 20.06.2011

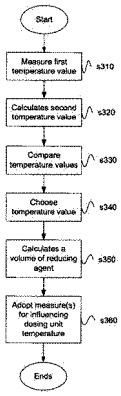
PRI SE 20100621 1050651 21.06.2010

IC **F01N003/20** F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE; ARVIDSSON, Daniel, S-139 32 Vaermdoe, SE

AB [US 2013111883 A1] A method pertaining to an SCR system for cleaning of exhaust gases from an engine including a dosing unit (250) to supply a reducing agent to an exhaust duct (240): Determining (s340) whether there is an undesired temperature level of the dosing unit (250). If one is found, removing (s360) warmed reducing agent from the dosing unit (250) and supplying it to the exhaust duct (240). Calculating (s350) and removing an amount of reducing agent based on a prevailing temperature of the dosing unit (250), or removing warmed reducing agent. Also a computer programme product containing programme code (P) for a computer (200; 210) for implementing the method. Also a device of an SC ...



TI **METHOD PERTAINING TO AIR REMOVAL FROM A DOSING SYSTEM AT AN SCR SYSTEM AND AN SCR SYSTEM**

PI **EP 02582946 A1** 24.04. 2013

AI 11798472 20.06.2011

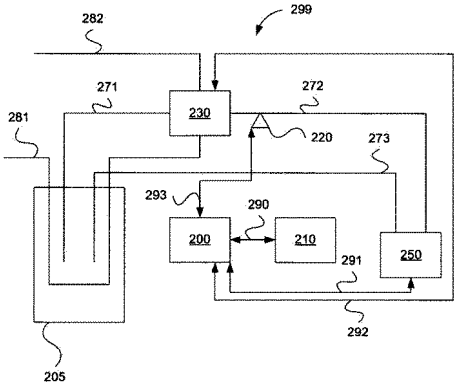
PRI SE 20100621 1050641 21.06.2010

IC **F01N009/00** F01N003/20 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN ERIKSSON, Lars, S-153 38 Jaerna, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, P ...

AB [US 2013111882 A1] A method pertaining to an SCR system in which reducing agent in liquid form is supplied to a feed device (230) and via which feed device reducing agent is supplied to at least one consumption point (250) from a container (205): the steps of continuously detecting the feed pressure (P) which the feed device (230) furnishes, and controlling the operation of the feed device (230) on the basis of changes (P) in the feed pressure (P), with the object of reducing the impact of unwanted air supply at the feed device (230). Also pertaining to a computer programme product containing programme code (P) for a computer (200; 210) for implementing a method according to the invention. ...



TI **METHOD PERTAINING TO AIR REMOVAL FROM A HC DOSING SYSTEM AND A HC DOSING SYSTEM**

PI **EP 02582947 A1** 24.04. 2013

AI 11798473 20.06.2011

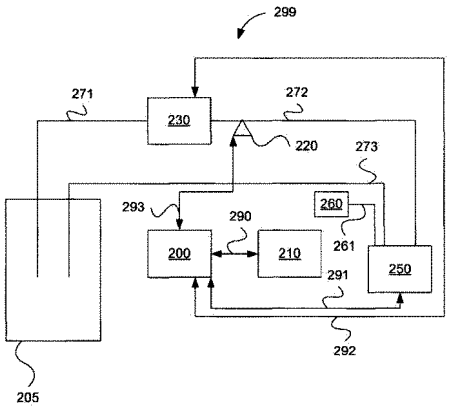
PRI SE 20100621 1050646 21.06.2010

IC **F01N009/00** F01N003/025 F01N003/36 F01N011/00

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN ERIKSSON, Lars, S-153 38 Jaerna, SE; CARLSSON, Ulf, S-152 30 Soedertaelje, SE; LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, P ...

AB [US 2013111884 A1] A method pertaining to an HC dosing system wherein fuel from a container (205) is supplied to a feed device which supplies to at least one consumption point (250). Determining presence of air supplied upstream of the feed device (230). When such presence is found reducing an operating power of the feed device (230) compared with its ordinary operation. A computer programme product containing programme code (P) for a computer (200; 210) for implementing the method. Also an HC dosing system and a motor vehicle (100) which is equipped with the HC dosing system are disclosed.



TI **METHOD AND DEVICE PERTAINING TO LIMITING THE TEMPERATURE OF A DOSING UNIT IN A SCR SYSTEM**

PI **EP 02582948 A1** 24.04. 2013

AI 11798470 20.06.2011

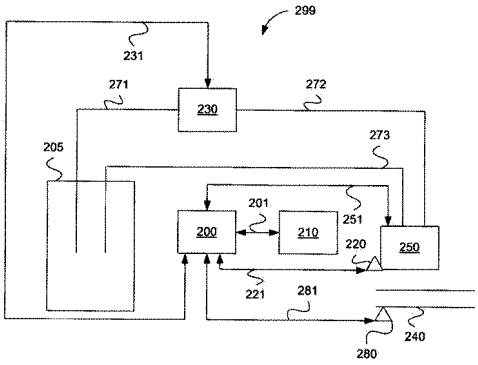
PRI SE 20100621 1050648 21.06.2010

IC **F01N011/00** F01N003/20 F02D041/02

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE

AB [US 2013091829 A1] A method pertaining to an SCR system for cleaning of exhaust gases from an engine (150). A dosing unit (250) is in thermal contact with the engine s exhaust system and supplies a reducing agent to an exhaust duct (240) of the exhaust system. Determining (s340) whether there is an undesired temperature level of the dosing unit (250). If yes, limit (s360) the temperature of the exhaust duct (240) by controlling operation of the engine. Also, a computer programme product containing programme code (P) for implementing the method. Also a device and a motor vehicle (100) which is equipped with the device are disclosed.



TI **METHOD AND DEVICE PERTAINING TO LIMITING THE TEMPERATURE OF A HC DOSING UNIT IN AN EXHAUST SYSTEM**

PI **EP 02582949 A1** 24.04. 2013

AI 11798471 20.06.2011

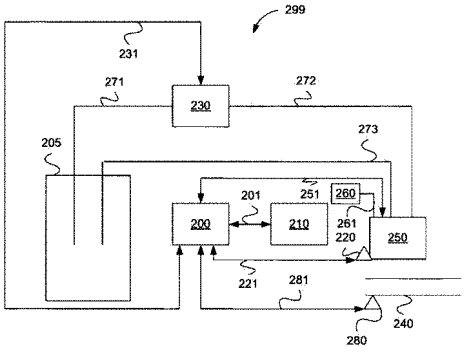
PRI SE 20100621 1050649 21.06.2010

IC **F01N011/00** F01N003/025 F01N003/36 F02D041/02

PA Scania CV AB (publ), 151 87 Soedertaelje, SE

IN LILJESTRAND, Andreas, S-151 45 Soedertaelje, SE; BREMBERG, Per, S-151 60 Soedertaelje, SE

AB [US 2013086889 A1] A method pertaining to an HC dosing system for cleaning of exhaust gases from an engine (150), including a dosing unit in thermal contact with the engine s exhaust system (250) and supplying a fuel to an exhaust duct (240) of the exhaust system, the step of determining (s340) whether there is an undesired temperature level of the dosing unit (250), and if so, limiting (s360) the temperature of the exhaust duct (240) by control of operation of the engine. Also a computer programme product containing programme code (P) for a computer (200; 210; 400) for implementing the method, and also to a device and a motor vehicle (100) which is equipped with the device.



TI **EXHAUST GAS TREATMENT SYSTEM INCLUDING A THERMOELECTRIC GENERATOR**

PI **EP 02582950 A1** 24.04. 2013

AI 11728739 20.06.2011

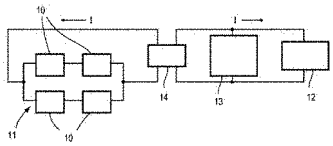
PRI US 20100909 878647; US 20100621 356870 P

IC **F01N013/00** B01D053/94 F01N005/02 H01L035/32 H01L035/30

PA Corning Incorporated, Corning, New York 14831, US

IN BACKHAUS-RICOULT, Monika, Horseheads, New York 14845, US; CHEN, Peng, Painted Post, NY 14870, US; SOULLIERE, Mark J., Corning, NY 14830, US

AB [US 8309044 B2] An after-treatment device for an automotive engine includes a substrate having a thermoelectric generation element disposed in an interior volume thereof. The substrate has a first end, a second end, and an outermost lateral dimension that defines an interior volume, and is configured to flow engine exhaust gas from the first end to the second end such that the flowing exhaust gas is in thermal contact with the thermoelectric generation element.



TI **REDUCING-AGENT SUPPLY DEVICE AND AN EXHAUST GAS NITROGEN-REMOVAL SYSTEM USING THE SAME**

PI **EP 02583740 A2** 24.04. 2013

AI 11798348 20.06.2011

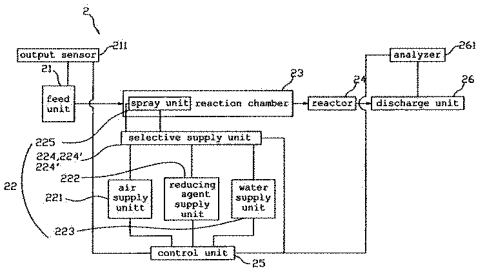
PRI KR 20100621 20100058708 21.06.2010

IC **B01D053/56** B01D047/06 B01D053/78 B01D053/34

PA Panasia Co., Ltd., Busan 464-050, KR

IN LEE, Soo-Tae, Busan 608-092, KR; CHOI, Won-Suk, Busan 616-735, KR; KANG, Gyeong-Woo, Busan 602-030, KR

AB This invention relates to a reducing agent supply device and an exhaust gas denitrification system using the same. The reducing agent supply device includes a reducing agent supply unit for supplying a reducing agent to a selective supply unit, a water supply unit for supplying water to the selective supply unit, the selective supply unit for selectively supplying any one of the reducing agent and water supplied from the reducing agent supply unit and the water supply unit to a spray unit, and the spray unit for spraying the reducing agent or water supplied from the selective supply unit, wherein the selective supply unit supplies water to the spray unit when the spray unit is blocked due t ...



TI **System and Method for Controlling and Reducing NOx Emissions**

PI **EP 02583741 A1** 24.04. 2013

AI 12188891 17.10.2012

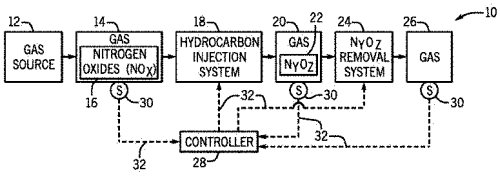
PRI US 20111021 201113279186 21.10.2011

IC **B01D053/56**

PA General Electric Company, Schenectady, NY 12345, US

IN Kraemer, Gilbert Otto, Greenville, SC South Carolina 29615, US; Acharya, Harish Radhakrishna, Niskayuna, NY New York 12309, US; Thatcher, R ...

AB A system includes a gas production source (12) configured to produce a gas stream (14) comprising nitrogen oxides (NO x) (16) and a hydrocarbon injector (18) disposed downstream of the gas production source (12) and configured to inject a hydrocarbon into the gas stream (14). The hydrocarbon is configured to oxidize molecules of the NO x (16) in the gas stream (14) to produce a higher order compound of nitrogen and oxygen (N y O z) (22). The system also includes a removal device (24) disposed downstream of the hydrocarbon injector (18). The removal device (24) is configured to remove the N y O z (22) from the gas stream via absorption or reaction.



TI **Exhaust gas purifier for internal combustion engine**

PI **EP 02584161 A1** 24.04. 2013

AI 12187759 09.10.2012

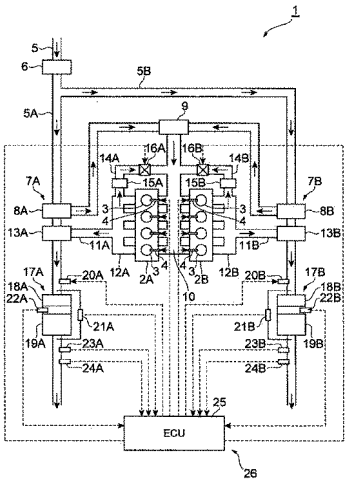
PRI JP 20111020 2011230980 20.10.2011

IC **F01N003/023** F01N009/00 F01N013/04

PA Kabushiki Kaisha Toyota Jidoshokki, Kariya-shi, Aichi 448-8671, JP; TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN Okamura, Masaaki, Kariya-shi, Aichi 448-8671, JP; Takahashi, Yoshiyuki, Kariya-shi, Aichi 448-8671, JP; Murata, Dai, Kariya-shi, Aichi 448- ...

AB An exhaust gas purifier (26) has DPFs (19A, 19B), fuel addition valves (20A, 20B), and ECU (25). ECU (25) controls the fuel addition valves (20A, 20B) so as to add fuel according to target regeneration temperature correction coefficients, and thereafter, when PM accumulation amounts in both DPFs (19A, 19B) become smaller than a regeneration end threshold, ECU (25) controls the fuel addition valves (20A, 20B) so as to end the addition of fuel. ECU (25) sets the target regeneration temperature correction coefficient to 1 when the PM accumulation amount in DPF (19A, 19B) becomes smaller than the regeneration end threshold; ECU (25) calculates the target regeneration temperature correction coef ...



TI **EXHAUST HEATING APPARATUS**

PI **EP 02584162 A1** 24.04. 2013

AI 10853579 21.06.2010

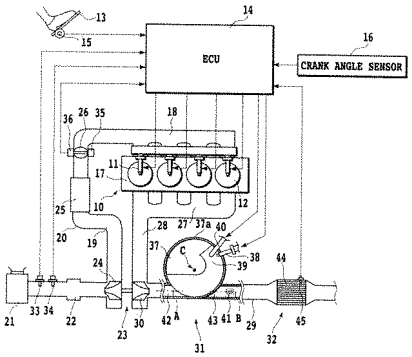
PRI EP 20100621 10853579 21.06.2010

IC **F01N003/20** F01N003/24

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN MORI, Taiichi, Toyota-shi, Aichi 471-8571, JP

AB An exhaust gas heating apparatus (31) according to the present invention comprises an expansion chamber (37) having an inflow port (42) and an outflow port (43), a fuel supplying element (38) for supplying fuel into the expansion chamber, a the fuel diffusing plate (39) for dispersing the fuel in the expansion chamber, and ignition means (40) for igniting the fuel in the expansion chamber, wherein an exhaust passage (28) communicated with the inflow port is connected tangentially to a circular peripheral surface (37a) of the expansion chamber, an axis (A) thereof is offset from an axis (B) of the exhaust passage communicated with the outflow port, and the fuel diffusing plate extends along ...



TI **INTERNAL COMBUSTION ENGINE CONTROL DEVICE**

PI **EP 02584163 A1** 24.04. 2013

AI 10853210 15.06.2010

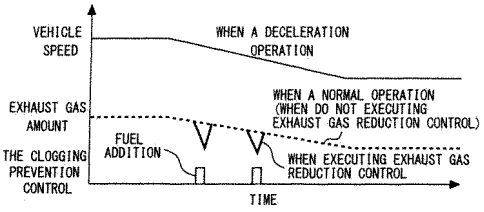
PRI EP 20100615 10853210 15.06.2010

IC **F01N003/36**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN KOGO, Tomoyuki, Toyota-shi, Aichi 471-8571, JP; OGAWA, Takashi, Toyota-shi, Aichi 471-8571, JP; ITO, Katsuhiro, Toyota-shi, Aichi 471-8571, ...

AB An object of this invention is to maintain favorable exhaust emissions while preventing clogging of a fuel addition valve. An engine 10 includes a fuel addition valve 34 that adds fuel to exhaust gas. The fuel addition valve 34 executes a fuel addition operation when a reduction process of an exhaust purification catalyst 32 is performed. To prevent clogging of the fuel addition valve 34, an ECU 50 executes clogging prevention control that drives the fuel addition valve 34 even at a timing at which addition of fuel is unnecessary. If exhaust emissions are adversely affected by executing the clogging prevention control, the ECU 50 executes the clogging prevention control while reducing the e ...



TI **Delivery pump for a fluid**

PI **EP 02584198 A2** 24.04. 2013

AI 12188656 16.10.2012

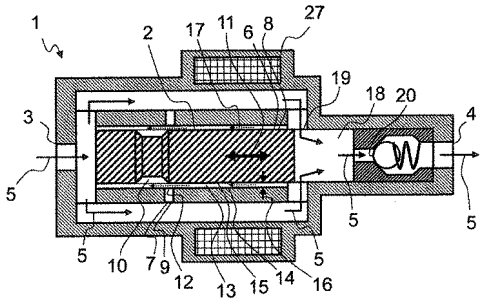
PRI EP 20111021 11290490 21.10.2011

IC **F04B017/04** F04B035/04 F04B053/08

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN Maguin, Georges, 57155 Marly, FR

AB The invention relates to a delivery pump (1) for delivering a fluid, having a delivery piston (2), which can be moved in a delivery direction (5) from a pump inlet (3) to a pump outlet (4), wherein the delivery piston (2) is supported in an axial bearing (6), and wherein the axial bearing (6) has a cooling device (7), which is set up to cool the axial bearing (6) with the fluid.



TI **Profile clamp with seal element**

PI **EP 02584240 A1** 24.04. 2013

AI 12006114 29.08.2012

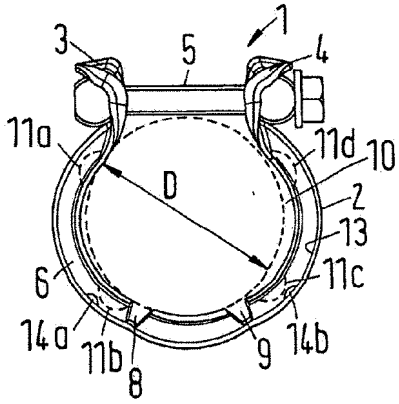
PRI DE 20111022 22.10.2011
102011116768

IC **F16L023/08** F16L023/20 F01N013/18

PA NORMA Germany GmbH, 63477 Maintal, DE

IN Henrich, Detlef, 63694 Limeshain, DE; Krauss, Mathias, 61130 Nidderau, DE; Krueger, Manfred, 63654 Buedingen, DE

AB The profiled clamp (1) has clamping element (5), a sealing element (10) having elastically deformable spacers (11a-11d) on a radial outside, and a profile band (2) on which the sealing element is held secured against loss. The elastically deformable spacers bear against an inside of the profile band in a non-positive manner. The spacers comprise a fixed end (19) connected to the sealing element, and a contact region (20) structured and arranged to bear against the inside of the profile band, and a free end (21).



TI **ELECTROCHEMICAL NITROGEN OXIDE CATALYTIC CONVERTER**

PI **EP 02585198 A1** 01.05. 2013

AI 11721291 16.05.2011

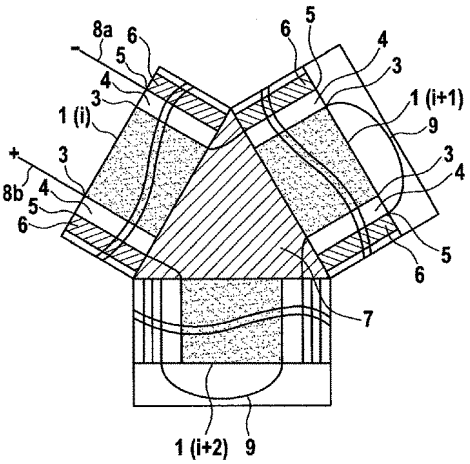
PRI DE 20100623 23.06.2010
102010030394

IC **B01D053/32** B01J019/00 B01D053/94 F01N003/08

PA Robert Bosch GmbH, 70442 Stuttgart, DE

IN SCHULZE, Andreas, 70176 Stuttgart, DE; KAEFER, Sebastian, 70197 Stuttgart, DE

AB [WO 2011160895 A1] The invention relates to an electrochemical nitrogen oxide catalytic converter having an anode (3), an electrolyte (4), a cathode (5) and a catalytic material (6), wherein an electrical potential can be applied to the anode (3) and the cathode (5). According to the invention, an electrochemical nitrogen oxide catalytic converter is made available which, on the one hand, is of compact design and, on the other hand, is suitable for a voltage supply, in particular from an on-board power supply system of a vehicle. This is achieved in that the anode (3), the electrolyte (4), the cathode (5) and the catalytic material (6) are combined to form a function layer (2), and in that ...



TI **EXHAUST GAS PURIFYING APPARATUS FOR DIESEL ENGINE**

PI **EP 02585690 A1** 01.05. 2013

AI 11797761 20.05.2011

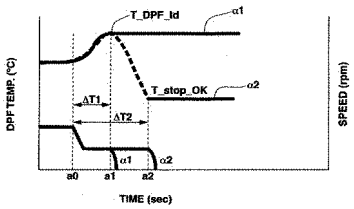
PRI JP 20100625 2010144512 25.06.2010

IC **F01N003/02** F02D029/02 F02D041/08 F02D041/38 F02D045/00

PA Nissan Motor Co., Ltd, Yokohama-shi, Kanagawa 221-0023, JP

IN NISHIZAWA, Toru, Atsugi-shi Kanagawa 243-0123, JP; YAMAMOTO, Risa, Atsugi-shi Kanagawa 243-0123, JP

AB [US 2013092030 A1] An exhaust gas purifying apparatus for a diesel engine includes a diesel particulate filter (DPF) in an exhaust system in the diesel engine. The exhaust gas purifying apparatus is constructed to execute regeneration of the DPF by raising a temperature of the DPF in a case where a predetermined DPF regeneration condition is fulfilled, interrupt the regeneration of the DPF, execute idling stop, automatically restart the diesel engine and then restart the regeneration of the DPF, and when shifting to the idling operation is carried out during regeneration of the DPF, delay execution of the idling stop until a temperature of the DPF at a time at which t20he idling stop is sta ...



TI **DEVICE AND METHOD FOR METERING A LIQUID INTO THE EXHAUST GAS TRACT OF AN INTERNAL COMBUSTION ENGINE**

PI **EP 02585691 A1** 01.05. 2013

AI 11720118 19.05.2011

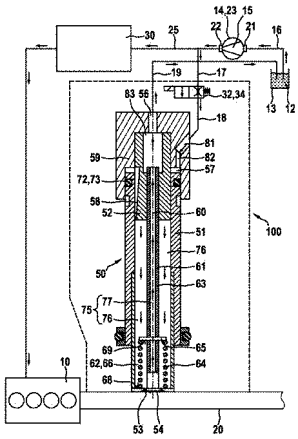
PRI DE 20100622 102010030343 22.06.2010

IC **F01N003/20** F01N003/36 F02M059/36

PA Robert Bosch GmbH, 70442 Stuttgart, DE

IN BURGER, Matthias, 71711 Murr, DE

AB [US 2013081377 A1] The invention relates to a device and method for metering a liquid, in particular a fuel, into an exhaust gas tract of an internal combustion engine, wherein the device comprises at least one injection valve that can be closed by a closing member and that has cooling circuit for regulating the temperature in the injection valve, and wherein a throttle element is connected upstream of the injection valve to control, by closed loop or open loop, the quantity of a volume flow of the liquid through the injection valve, in particular through the cooling circuit of the injection valve, wherein the injection valve opens when the throttle element de-throttles the volume flow of t ...



TI **METHOD FOR MONITORING AN SCR SYSTEM**

PI **EP 02585692 A1** 01.05. 2013

AI 11726821 22.06.2011

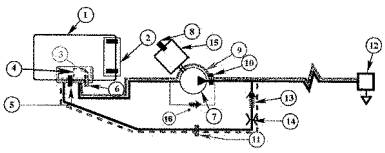
PRI FR 20100623 1054986 23.06.2010

IC **F01N003/20** F01N011/00

PA Inergy Automotive Systems Research (Societe Anonyme), 1120 Brussels, BE

IN PEUCAT, Frederic, B-1000 Brussels, BE; HABUMUREMYI, Jean-Claude, B-9450 Haaltert, BE; OP DE BEECK, Joel, B-2547 Lint, BE

AB [US 2013180323 A1] A method for detecting whether an injector with a valve controlled by a PWM signal of an SCR system is clogged, the SCR system including a rotary positive-displacement pump driven by a motor and pressure of which is controlled by a controller that continuously measures rotational speed of the motor and pressure at an outlet of the pump. During operation of the SCR system at a given pressure: the associated average rotational speed is measured; the speed is held at the measured value; a curve of a change in pressure is compared to reference curves stored in a memory and a condition of the injector, for example whether the injector is clogged or not, is deduced therefrom.



TI **DOSING AND MIXING ARRANGEMENT FOR USE IN EXHAUST AFTERTREATMENT**

PI **EP 02585693 A1** 01.05. 2013

AI 11729001 22.06.2011

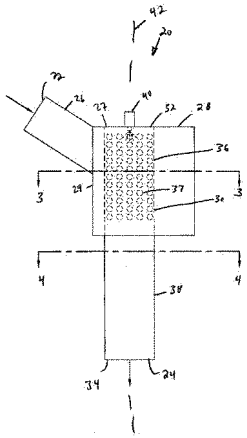
PRI US 20100622 357418 P 22.06.2010

IC **F01N003/36** F01N003/20

PA Donaldson Company, Inc., Minneapolis, MN 55440-1299, US

IN DE RUDDER, Korneel, B-3020 Winksele, BE; CHAUVIN, Corine, B-1000 Bruxelles, BE

AB [US 2011308234 A1] A dosing and mixing arrangement is disclosed herein. The arrangement includes a mixing tube having a constant diameter along its length. At least a first portion of the mixing tube includes a plurality of apertures. The arrangement also includes a swirl structure for causing exhaust flow to swirl outside of the first portion of the mixing tube in one direction along a flow path that extends at least 270 degrees around a central axis of the mixing tube. The arrangement is configured such that the exhaust enters an interior of the mixing tube through the apertures as the exhaust swirls along the flow path. The exhaust entering the interior of the mixing tube through the ape ...



TI **METHOD FOR MONITORING AN SCR SYSTEM**

PI **EP 02585695 A1** 01.05. 2013

AI 11727970 22.06.2011

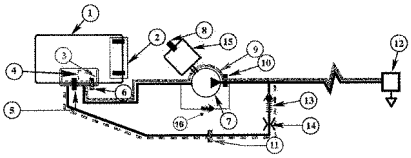
PRI FR 20101203 1060088; FR 20100623 1054985

IC **F01N011/00** F01N003/20

PA Inergy Automotive Systems Research (Societe Anonyme), 1120 Brussels, BE

IN PEUCAT, Frederic, B-1000 Brussels, BE; HABUMUREMYI, Jean-Claude, B-9450 Haaltert, BE; OP DE BEECK, Joel, B-2547 Lint, BE

AB [WO 2011161162 A1] Method for detecting whether an injector with a valve controlled by a PWM signal of an SCR system is at least partially clogged, said system comprising a pump, preferably a positive-displacement pump, driven by a motor and the pressure of which is controlled by a controller that continuously measures the pressure and/or another parameter characteristic of the energy transmitted by the motor to the pump, according to which, during normal operation of the SCR system, specific portions of one of these measurements are compared with equivalent portions stored in a memory.



TI **METHOD FOR ADAPTING THE SETTINGS OF AN ENGINE ON THE BASIS OF THE CONSUMPTION OF A NITROGEN-OXIDE REDUCING AGENT**

PI **EP 02585701 A2** 01.05. 2013

AI 11797678 07.06.2011

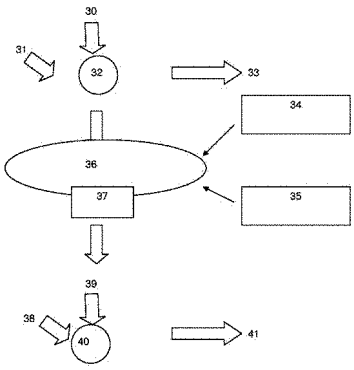
PRI FR 20100622 1054964 22.06.2010

IC **F02D041/02** F01N003/20 F02D041/30 F01N003/08

PA Peugeot Citroen Automobiles SA, 78140 Velizy Villacoublay, FR

IN BOISSARD, Romain, F-78000 Versailles, FR; MAESSE, Pierre-Henri, F-92500 Rueil Malmaison, FR; NOVATI, Jean, F-92100 Boulogne-Billancourt, FR ...

AB [WO 2011161351 A2] The invention relates to a method for adapting the settings of an engine on the basis of the consumption of a nitrogen-oxide reducing agent onboard a vehicle, the vehicle including an engine and a nitrogen-oxide reducing agent tank, characterized in that the method includes: estimating, on the basis of the history of the consumption of the reducing agent (34), the distance remaining to be travelled by the vehicle before the reducing agent tank becomes empty; comparing the estimate of the remaining distance with a predetermined distance; adjusting the air (38) and fuel (39) injected into the engine on the basis of the comparison; and adjusting the injection of reducing age ...



TI **APPARATUS FOR PARTICLE DEPOSITION IN THE EXHAUST-GAS RECIRCULATION SYSTEM**

PI **EP 02585703 A1** 01.05. 2013

AI 11726800 22.06.2011

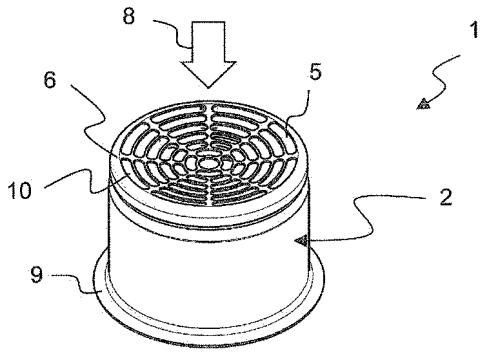
PRI DE 20101103 102010050393; DE 20100628 102010025284

IC **F02M025/07** B01D039/12 B01D053/94

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN KRUSE, Carsten, 53842 Troisdorf, DE; NAGEL, Thomas, 51766 Engelskirchen, DE; KURTH, Ferdi, 53894 Mechernich, DE

AB [US 2013111860 A1] A device for separating particles from an exhaust gas of an internal combustion engine includes at least a pot with a base having a multiplicity of openings, at least one nonwoven layer positioned on the base of the pot, and a cover. The at least one nonwoven layer is positioned between the base and the cover. A motor vehicle having the device is also provided.



TI **DIESEL ENGINE EXHAUST PURIFICATION SYSTEM**

PI **EP 02587010 A1** 01.05. 2013

AI 11797955 26.05.2011

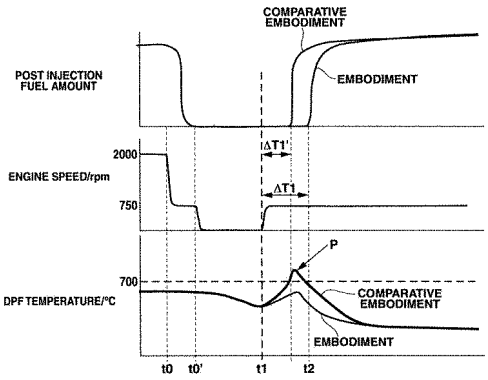
PRI JP 20100625 2010144511 25.06.2010

IC **F01N003/02** B01D046/42 F02D017/00 F02D029/02 F02D041/38 F02D045/00

PA Nissan Motor Co., Ltd, Yokohama-shi, Kanagawa 221-0023, JP

IN YAMAMOTO, Risa, Kanagawa 243-0123, JP

AB In a case where DPF regeneration is restarted after an engine is automatically restarted from interruption of the DPF regeneration, DPF regeneration control is corrected so as to suppress temperature rise due to the DPF regeneration in consideration of an increment in oxygen concentration in exhaust gas which is caused due to the interruption of the DPF regeneration. Specifically, restart of the DPF regeneration is prohibited during a predetermined prohibition time "T1 from a time t1 at which the engine is automatically restarted, and a post injection amount of fuel is corrected to the side of reduction.



TI **INTERNAL COMBUSTION ENGINE**

PI **EP 02587012 A1** 01.05. 2013

AI 10854034 28.06.2010

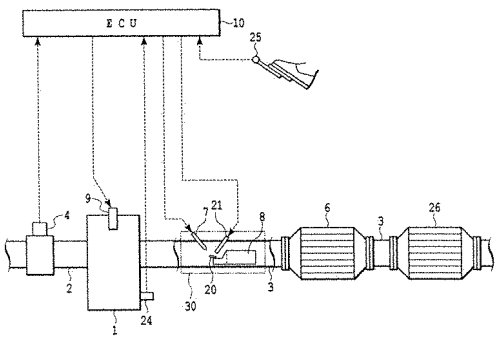
PRI EP 20100628 10854034 28.06.2010

IC **F01N003/36** F01N003/20 F01N003/24 F01N003/26

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN MORI, Taiichi, Toyota-shi Aichi 471-8571, JP; HASHIMOTO, Eiji, Toyota-shi Aichi 471-8571, JP; UNO, Koki, Toyota-shi Aichi 471-8571, JP; KAN ...

AB An internal combustion engine according to the present invention includes an exhaust treatment apparatus provided in an exhaust passage, and a burner apparatus provided upstream of the exhaust treatment apparatus to increase an exhaust temperature. The burner apparatus includes at least a fuel addition valve that allows fuel to be added into exhaust and ignition means for igniting the fuel added via the fuel addition valve. The fuel addition valve is driven open when fuel is added via the fuel addition valve. The amount of fuel added via the fuel addition valve per unit time is increased beyond a predetermined reference amount when the detected amount of intake air exceeds a predetermined t ...



TI **CONTROL METHOD AND ARRANGEMENT FOR SELECTIVE CATALYTIC REDUCTION**

PI **EP 02588218 A1** 08.05. 2013

AI 11729127 20.05.2011

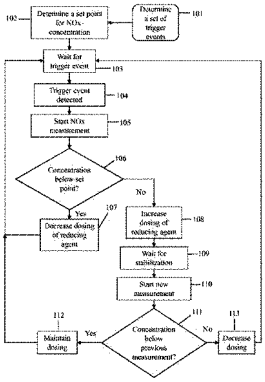
PRI FI 20100629 20105744 29.06.2010

IC **B01D053/94** F01N003/20

PA Waertsilae Finland Oy, 65380 Vaasa, FI

IN NORDBERG, Daniel, FI-65280 Vasa, FI; PELTOKOSKI, Raine, FI-65320 Vaasa, FI

AB [US 2013115152 A1] A method for controlling a selective catalytic reduction system (SCR) exploiting a set of predetermined trigger events (101) and a set point for the NOx concentration (102). At the occurrence of a trigger event (104), NOx concentration measurement downstream from the catalyst elements (2) is started (105) and the difference between the measured concentration and the set point is determined (106). If the difference is negative, the dosing of the reducing agent is decreased (107) and a new trigger event is waited for (103). If the difference is positive, the dosing of the reducing agent is increased (108). After system stabilization (109), anew measurement is started (110) ...



TI **CATALYST MATERIAL AND PROCESS FOR THE PRODUCTION THEREOF**

PI **EP 02588232 A1** 08.05. 2013

AI 11761486 25.06.2011

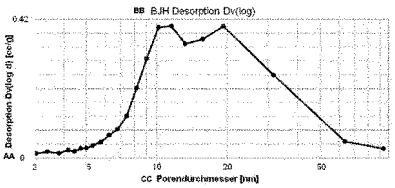
PRI DE 20100629 102010030684 29.06.2010

IC **B01J023/22** B01J023/30 B01J035/00 B01J035/10 B01J021/06 B01D053/94

PA Sachtleben Chemie GmbH, 47198 Duisburg, DE

IN GROTHE, Sonja, 46147 Oberhausen, DE; ROHE, Bernd, 47445 Moers, DE; EBBINGHAUS, Peter, 45699 Herten, DE; GOSCH, Elke, 47802 Krefeld, DE

AB [WO 2012022328 A1] The invention relates to a TiO2-based catalyst material in particle form having a content of metal, to a process for the production thereof and to the use thereof for the removal of pollutants, in particular of nitrogen oxides from combustion gases.



TI **MUFFLER**

PI **EP 02588720 A1** 08.05. 2013

AI 11740578 02.08.2011

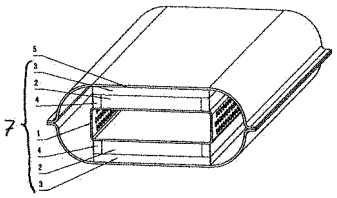
PRI DE 20100806 102010033607 06.08.2010

IC **F01N001/00** F01N005/02

PA Friedrich Boysen GmbH & Co. KG, 72213 Altensteig, DE

IN SCHMIDT, Juergen, 75417 Muehlacker, DE; HERBIG, Michael, 72250 Freudenstadt, DE

AB [WO 2012016684 A1] The invention relates to a muffler for an exhaust gas system of an internal combustion engine, comprising a muffler housing, at least one exhaust gas inlet, at least one exhaust gas outlet, and at least one muffling device that lies in the muffler housing. The muffler is characterized in that the muffler housing is equipped with at least one cooling element that is designed to extract heat energy from the exhaust gas.



TI **INTEGRATED DIESEL PARTICULATE FILTER AND ELECTRIC LOAD BANK**

PI **EP 02588721 A1** 08.05. 2013

AI 11743677 28.06.2011

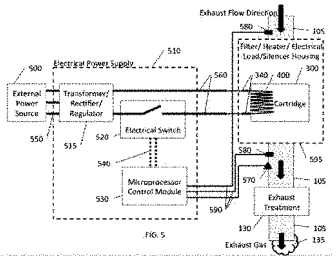
PRI US 20100701 360655 P; US 20100716 364862 P

IC **F01N003/022** B01D046/52 B01D046/00 F01N003/027 B01D046/24

PA Rypos, Inc., Holliston, MA 01746, US

IN IBRAHIM, Osama, Bellingham MA 02019, US; PETER, Klaus, Natick MA 01760, US; LOREN, Noah, Waban MA 02468, US; WILLEY, Peter, Rumford RI 0291 ...

AB [US 2012003131 A1] An apparatus for dissipating energy into the exhaust gas of an internal combustion engine includes a container for confining a flow path for exhaust gas from an internal combustion engine where the container has an inlet and an outlet. A porous, electrically conductive mesh is placed in the container such that exhaust gas can flow through the conductive mesh. At least two electrical terminals are in permanent electrical contact with the conductive mesh. An electrical power supply completes an electrical circuit through the conductive mesh with the power supply having two or more electrical outputs electrically connected to an equal number of electrical terminals on the co ...



TI **ARRANGEMENT OF A CATALYTIC CONVERTER IN AN EXHAUST SYSTEM**

PI **EP 02588722 A1** 08.05. 2013

AI 11724557 03.06.2011

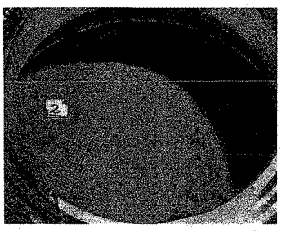
PRI DE 20100701 102010025804 01.07.2010

IC **F01N003/10** F01N003/28

PA Bayerische Motorenwerke Aktiengesellschaft, 80809 Muenchen, DE

IN SCHWARZ, Christian, 81245 Muenchen, DE

AB [US 2013118164 A1] An arrangement of a catalytic converter in an exhaust system of an internal combustion engine which can be operated with fuel containing manganese is provided, wherein the catalytic converter is arranged in the exhaust tract in an exhaust gas flow path from the internal combustion engine. A sacrificial disk, which is permeable to exhaust gas, is arranged in the exhaust tract upstream of the catalytic converter in the flow direction of the exhaust gas. When the exhaust gas back pressure becomes too high for normal internal combustion engine operation owing to manganese deposits, the relatively inexpensive sacrificial disk can be replaced other than exchanging and/or cleani ...



TI **EXHAUST-GAS TREATMENT DEVICE**

PI **EP 02588723 A1** 08.05. 2013

AI 11727499 28.06.2011

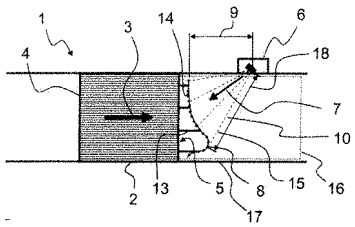
PRI DE 20100702 102010025880 02.07.2010

IC **F01N003/20**

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE; Volskswagen Aktiengesellschaft, 38440 Wolfsburg, DE

IN KRUSE, Carsten, 53842 Troisdorf, DE; NAGEL, Thomas, 51766 Engelskirchen, DE; SPRUTE, Joerg, 29399 Wahrenholz, DE

AB [US 2013118157 A1] An exhaust gas treatment device includes an exhaust gas treatment component for conducting a flow in a flow direction from an inflow side to an outflow side. A metering device for metering reducing agent into the exhaust gas treatment device is disposed downstream of the outflow side in the flow direction. The metering device has a metering direction which runs at least partially counter to the flow direction. The outflow side of the exhaust-gas treatment component is spanned at least partially by a porous layer and there is a spacing between the metering device and the exhaust-gas treatment component selected in such a way that injected reducing agent reaches the porous ...



TI **DIESEL ENGINE AND EXHAUST AFTERTREATMENT SYSTEM AND METHOD OF TREATING EXHAUST GASES FROM A DIESEL ENGINE**

PI **EP 02588724 A1** 08.05. 2013

AI 10854233 02.07.2010

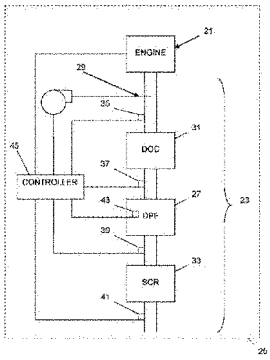
PRI EP 20100702 10854233 02.07.2010

IC **F01N003/36**

PA Mack Trucks, Inc., Greensboro, NC 27409, US

IN TAI, Chun, Hagerstown MD 21742, US

AB [US 2013098001 A1] In a diesel engine and exhaust aftertreatment system, a controller is arranged to control operation of the engine to obtain a first set of exhaust characteristics and to control a fuel injector to inject fuel upstream of a DPF at a first rate of injection until at least one condition is attained, and, after the at least one condition is attained, to control the fuel injector so that a rate of fuel injection is reduced and to contra! operation of the engine to obtain a second set of exhaust characteristics so that regeneration of the DPF occurs. At least one characteristic of the first and second sets of characteristics beina, different. A method for treating, diesel engin ...



TI **METHOD FOR INJECTING AMMONIA INTO AN EXHAUST GAS STREAM**

PI **EP 02588725 A2** 08.05. 2013

AI 11801492 01.07.2011

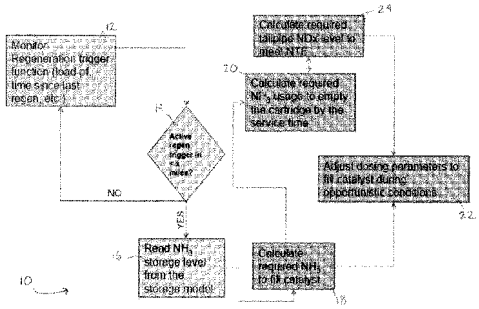
PRI US 20100701 828546 01.07.2010

IC **F01N009/00**

PA International Engine Intellectual Property Company, LLC, Warrenville, IL 60555, US

IN SANTHANAM, Shyam, Aurora, Illinois 60504, US; MILLER, Michael James, Mt. Prospect, Illinois 60056, US; ADELMAN, Brad J., Chicago, Illinois ...

AB [US 8434298 B2] A method (10) for injecting ammonia (NH3) into exhaust gas upstream of a catalyst of an aftertreatment system includes the steps of determining whether a regeneration event is imminent (14) on the basis of predetermined parameters, and determining whether dosing parameters are met (22). The method (10) further includes the steps of calculating an amount of NH3 to fill the catalyst (18) and adjusting a quantity of NH3 dosed (22) before the regeneration event occurs.



TI **Filter for insertion into a fluid-bearing pipe**

PI **EP 02589423 A1** 08.05. 2013

AI 12171658 12.06.2012

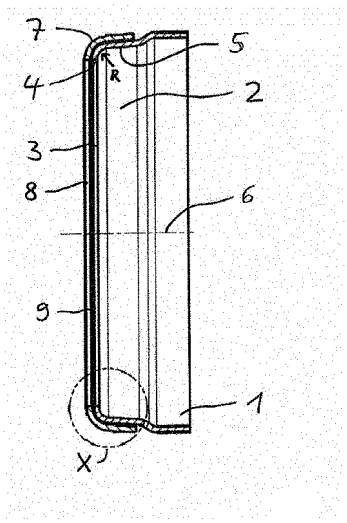
PRI DE 20111104 102011085800 04.11.2011

IC **B01D046/10** B01D046/00 F16L055/24 B01D035/02

PA Witzenmann GmbH, 75175 Pforzheim, DE

IN Kunzmann, Thomas, 75180 Pforzheim, DE; Reuss, Sebastian, 76307 Karlsbad, DE; Bessler, Frank, 75446 Wiernsheim, DE

AB The filter has a support pipe (1) and a flat filter element (8) which is fixed at the support pipe and whose clear inner cross section is covered. The support pipe has a pipe socket (2) with an end area (5), an edge (4) closing the end area and a pipe opening (3) circumscribed from the edge. The filter element covers the pipe opening of the pipe socket, in which the filter element is fitted on the edge of the pipe opening. the pipe nozzle in its end area has a corrugation (9) or a bead running parallel to the edge.



TI **Filter for filtering particulate matter from exhaust gas emitted from a positive ignition engine**

PI EP 02589427 A2 08.05. 2013

AI 13153896 26.02.2010

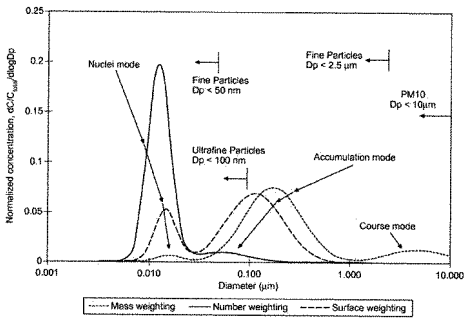
PRI GB 20090226 0903262; GB 20091224 0922612

IC **B01D053/94** F01N003/035 B01J023/46 B01J035/04 B01J035/10

PA JOHNSON MATTHEY PUBLIC LIMITED COMPANY, London EC4A 4AB, GB

IN Arnold, Louise Clare, Melbourn, Hertfordshire SG8 6HE, GB; Brisley, Robert James, Duxford, Cambridgeshire CB22 4RT, GB; Greenwell, David Ro ...

AB A filter for filtering particulate matter (PM) from exhaust gas emitted from a positive ignition engine comprises a porous substrate having inlet surfaces and outlet surfaces, wherein the inlet surfaces are separated from the outlet surfaces by a porous structure containing pores of a first mean pore size, wherein the porous substrate is coated with a catalytic surface washcoat layer comprising a plurality of solid particles, wherein the catalytic surface washcoat layer substantially covers surface pores of the porous structure, wherein the porous structure of the washcoated porous substrate contains pores of a second mean pore size provided by the catalytic surface washcoat layer, wherein ...



TI **HIGH TEMPERATURE GLASS FIBERS**

PI EP 02589767 A1 08.05. 2013

AI 11167841 26.10.2001

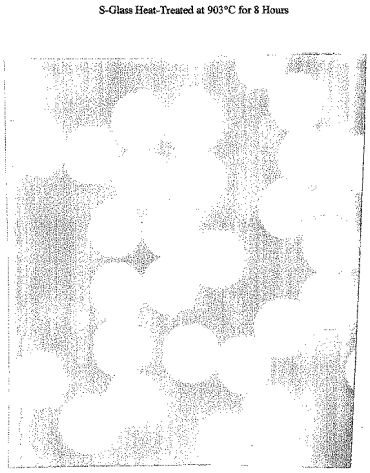
PRI US 20001031 703234 31.10.2000

IC **F01N001/24** C03C013/00

PA OWENS CORNING, Toledo, Ohio 43659, US

IN McGinnis, Peter, B., Gahanna, OH 43230, US

AB [US 6809050 B1] High temperature glass fibers suitable for use as textile and reinforcements are specifically adapted to be used in high temperature applications such as sound absorbing material in engine exhaust mufflers. The glass fibers have compositions of up to 72 Mole % SiO2, 20 mole percent Al2O3, 22 mole percent alkaline earth oxides and may include small amounts of alkali oxides and ZrO2.



TI **Exhaust gas purifier for internal combustion engine**

PI EP 02589768 A2 08.05. 2013

AI 12187757 09.10.2012

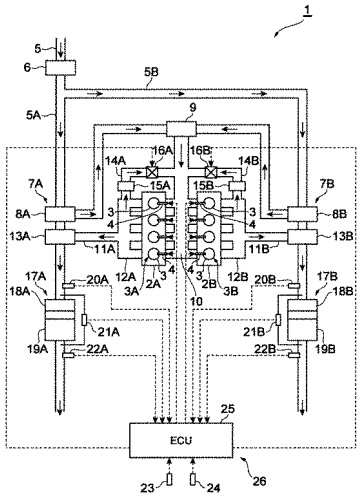
PRI JP 20111101 2011240572 01.11.2011

IC **F01N003/021** F01N013/04 F02D041/02 F02D041/30 F02D041/00

PA Kabushiki Kaisha Toyota Jidoshokki, Kariya-shi, Aichi 448-8671, JP; TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN Okamura, Masaaki, Kariya-shi, Aichi 448-8671, JP; Takahashi, Yoshiyuki, Kariya-shi, Aichi 448-8671, JP; Murata, Dai, Kariya-shi, Aichi 448- ...

AB An exhaust gas purifier (26) has DPFs (19A, 19B) to collect and remove PM from exhaust gases passing through exhaust passages (11A, 11B), and ECU (25). ECU (25) estimates PM emission amounts to respective DPFs (19A, 19B), based on air-fuel ratios of the exhaust gases detected by air-fuel ratio sensors (22A, 22B) and exhaust temperatures detected by exhaust temperature sensors (20A, 20B). When a difference between PM emission amount estimates for DPFs (19A, 19B) is larger than a threshold, ECU (25) gives offsets to a fuel injection quantity of respective cylinder groups (3A, 3B) so as to decrease a difference between PM emission amounts to DPFs (19A, 19B). ECU (25) controls each of fuel inje ...



TI **EXHAUST GAS PURIFICATION SYSTEM FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02589769 A1** 08.05. 2013

AI 11838998 29.08.2011

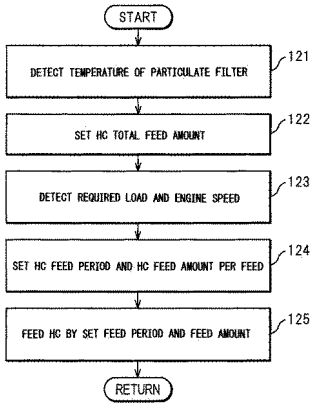
PRI EP 20110829 11838998 29.08.2011

IC **F01N003/08** F01N003/36 F02D041/04

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN INOUE, Mikio, Toyota-shi Aichi 471-8571, JP; YOSHIDA, Kohei, Toyota-shi Aichi 471-8571, JP; BISAIJI, Yuki, Toyota-shi Aichi 471-8571, JP

AB [EP 2589769 A1] An exhaust purification system of an internal combustion engine is provided with an exhaust purification catalyst which removes NO x and a post treatment device. The exhaust purification catalyst has the property of reducing NO x if making the concentration of hydrocarbons vibrate by within a predetermined range of amplitude and within a predetermined range of period and furthermore has the function of oxidizing hydrocarbons. The exhaust purification system feeds hydrocarbons to the exhaust purification catalyst and raises the temperature of the post treatment device as temperature elevation control. The exhaust purification catalyst has a high purification rate range where ...



TI **Overload Protection For Loudspeakers In Exhaust Systems**

PI **EP 02590163 A2** 08.05. 2013

AI 12190517 30.10.2012

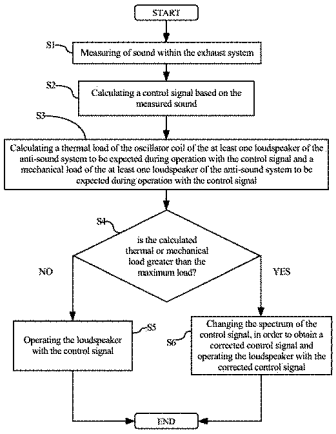
PRI DE 20111102 102011117495 02.11.2011

IC **G10K011/178**

PA J. Eberspaecher GmbH & Co. KG, 73730 Esslingen, DE

IN Schumacher, Uwe, 59494 Soest, DE; Luecking, Christof, 58300 Wetter, DE; Nicolai, Manfred, 73730 Esslingen, DE

AB A method for controlling an anti-sound system comprising measuring sound within an exhaust system of a vehicle, calculating a control signal based on the measured sound, calculating a thermal load to be expected of the at least one loudspeaker of the anti-sound system during operation with a control signal based on a mathematical model of a thermal behavior of the loudspeaker and/or a mechanical load to be expected of the at least one loudspeaker of the anti-sound system based on a mathematical model of a mechanical behavior the loudspeaker, comparing the calculated thermal and/or mechanical load with a specified maximum load, operating the loudspeaker with the control signal, if the calcul ...



TI **DUAL FUNCTION CATALYTIC FILTER**

PI **EP 02590730 A1** 15.05. 2013

AI 12727966 31.05.2012

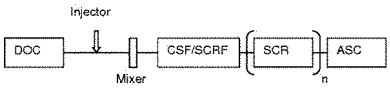
PRI US 20110531 201161491870 P

IC **B01D053/94** F01N003/035 F01N003/20

PA Johnson Matthey Public Limited Company, London EC4A 4AB, GB

IN SPREITZER, Glen, Collegeville, Pennsylvania 19426, US; CHATTERJEE, Sougato, Wayne, Pennsylvania 19087, US; RAJARAM, Raj Rao, Slough Bucking ...

AB [WO 2012166833 A1] A dual function catalytic filter is provided having a soot filter with an inlet and an outlet, a soot oxidation layer on the inlet, wherein the soot oxidation layer comprises a soot oxidation catalytic component consisting essentially of at least one transition metal dispersed on a cerium and zirconium mixed and/or composite oxide, wherein the at least one transition metal is selected from the group consisting of W, Cr, Ce, Mn, Fe, Co, Ni, Cu, and combinations thereof, and an SCR layer coated on the outlet, wherein the SCR layer comprises an SCR catalytic component. Also provided are methods for removing NOx and soot from a lean burn exhaust gas using the dual function ca ...



TI **EXHAUST GAS PURIFICATION APPARATUS AND REDUCTANT DISPENSING METHOD FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02591216 A1** 15.05. 2013

AI 11749906 06.07.2011

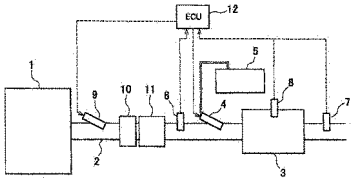
PRI JP 20100707 2010154817 07.07.2010

IC **F01N003/20** F01N009/00 B01D053/94

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN TOSHIOKA, Shunsuke, Toyota-shi Aichi-ken 471-8571, JP; HIROTA, Shinya, Toyota-shi Aichi-ken 471-8571, JP; FUKUDA, Koichiro, Toyota-shi Aich ...

AB [US 2013108529 A1] Utilizing the finding that the state of adsorption of NH3 on a selective reduction type NOx catalyst includes a weakly adsorbed state in which the adsorbed NH3 is useful for a reduction reaction of NOx and a strongly adsorbed state in which the adsorbed NH3 is not useful for the reduction reaction of NOx unless the state of adsorption is changed into the weakly adsorbed state, the apparatus of the invention includes an actual weakly-adsorbed amount-calculation NH3 that is adsorbed on the selective reduction type NOx catalyst in the weakly adsorbed state, and a dispensation control portion that performs a dispensation control of the reductant dispensed by a reductant-dispe ...



TI **CONTROL DEVICE AND CONTROL METHOD OF INTERNAL COMBUSTION ENGINE**

PI **EP 02591222 A2** 15.05. 2013

AI 11757414 06.07.2011

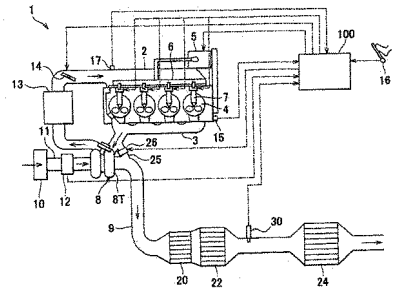
PRI JP 20100706 2010154121 06.07.2010

IC **F02D041/40** F02D041/30 F01N009/00 F02D033/02 F01N003/08 F01N003/10

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN NOGI, Yoshito, Toyota-shi Aichi-ken 471-8571, JP

AB [WO 2012004673 A2] A control device of an internal combustion engine switches the air-fuel ratio of in-cylinder gas from a lean first air-fuel ratio for normal operation to a rich second air-fuel ratio, and carries out intake air restriction during a switching period from the start to the end of the switching. A main injection is performed at or around a compression top dead center, prior to the start of switching, and the main injection and a first after injection that results in incomplete combustion of injected fuel are performed after the end of switching. During the switching period, the main injection is performed, and a second after injection that results in incomplete combustion of ...



TI **MUFFLER**

PI **EP 02592244 A1** 15.05. 2013

AI 13153620 02.08.2011

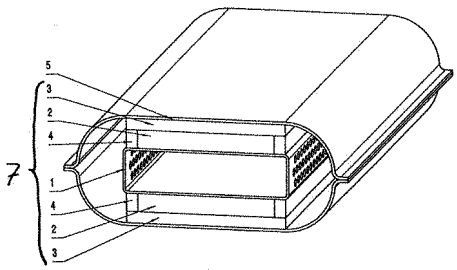
PRI DE 20100806 102010033607 06.08.2010

IC **F01N001/00** F01N005/02 B42C019/06

PA Friedrich Boysen GmbH & Co. KG, 72213 Altensteig, DE

IN Schmidt, Dr. Juergen, 75417 Muehlacker, DE; Herbig, Dr. Michael, 72250 Freudenstadt, DE

AB [WO 2012016684 A1] The invention relates to a muffler for an exhaust gas system of an internal combustion engine, comprising a muffler housing, at least one exhaust gas inlet, at least one exhaust gas outlet, and at least one muffling device that lies in the muffler housing. The muffler is characterized in that the muffler housing is equipped with at least one cooling element that is designed to extract heat energy from the exhaust gas.



TI **Exhaust gas purification system for reducing NOx emissions**

PI **EP 02592245 A2** 15.05. 2013

AI 12191686 07.11.2012

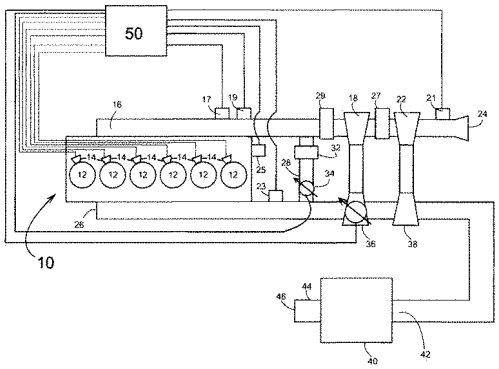
PRI US 20111108 201161557077 P; US 20120927 201213629223

IC **F01N003/10** F01N003/36 F01N009/00

PA International Engine Intellectual Property Company, LLC, Lisle, Illinois 60532, US

IN Cattani, Carlos Luis, Aurora, IL Illinois 60504, US; Uchanski, Michael, Chicago, IL Illinois 60657, US; Rodiguez, Rogelio, Plainfield, IL I ...

AB An exhaust gas purification system for reducing NOx emissions comprising an active hydrocarbon injector (14) configured to inject hydrocarbon into an exhaust stream created by a compression ignition engine (10) and a three-way catalyst (40) configured to reduce NOx using the injected hydrocarbon.



TI **STATIC MIXER FOR MIXING UREA SOLUTION AND ENGINE EXHAUST GAS**

PI **EP 02592246 A2** 15.05. 2013

AI 11803813 07.07.2011

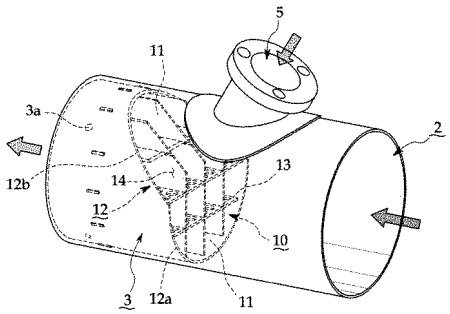
PRI KR 20100708 2010006598308.07.2010

IC **F01N003/24** F01N013/08

PA Doosan Infracore Co., Ltd., Dong-gu Incheon 401-020, KR

IN CHO, Young Jin, Incheon 401-020, KR; PARK, Ji Woong, Incheon 401-020, KR

AB The present invention relates to a static mixer for mixing a urea solution and engine exhaust gas. The static mixer includes: an external tube (2) including one end portion connected to an exhaust manifold of a diesel engine, the other end portion connected to an SCR (Selective Catalytic Reduction), and a part with which a urea solution injection adaptor (5) is provided; an internal tube (3) installed inside the external tube (2) so as to have a constant gap between at least a part of an outer wall surface and an inner wall surface of the external tube (2); and a channel unit (10) comprising a plurality of guiding channels (11) provided inside the internal tube (3) in a longitudinal directi ...



TI **INTERNAL COMBUSTION ENGINE**

PI **EP 02592247 A1** 15.05. 2013

AI 10854388 07.07.2010

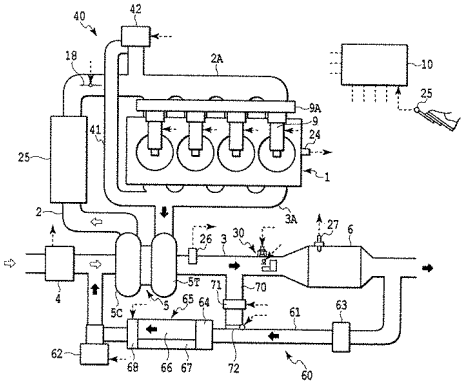
PRI EP 20100707 10854388 07.07.2010

IC **F01N003/36** F01N003/24 F02M025/07

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN KANBA, Chika, Toyota-shi Aichi-ken 471-8571, JP; HASHIMOTO, Eiji, Toyota-shi Aichi-ken 471-8571, JP; MORI, Taiichi, Toyota-shi Aichi-ken 47 ...

AB The present invention provides an internal combustion engine includes: a turbocharger arranged in exhaust passage; EGR passage branching off from the exhaust passage downstream of a turbine of the turbocharger and connected to intake passage; a burner device arranged in the exhaust passage between the turbine and the portion where the EGR passage branches off to increase exhaust temperature; a bypass passage branching off from the exhaust passage between the turbine and the burner device and connected to the EGR passage; and a bypass valve to adjust flow rate of exhaust gas passing through bypass passage. When flow rate of the exhaust gas is increased, the bypass valve is open, and part of ...



TI **Limiting NOx emissions of a compression ignition internal combustion engine**

PI **EP 02592255 A2** 15.05. 2013

AI 12191684 07.11.2012

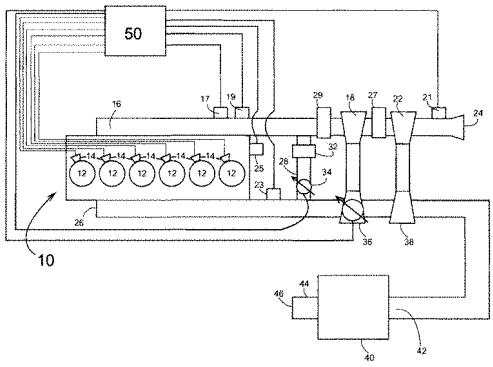
PRI US 20111108 201161557077 P; US 20120927 201213629197

IC **F02D041/10** F01N003/08 F01N009/00 F02D041/14 F02M025/07 F02D041/00 F02B037/12

PA International Engine Intellectual Property Company, LLC, Lisle, Illinois 60532, US

IN Cattani, Carlos Luis, Aurora, IL Illinois 60504, US; Uchanski, Michael, Chicago, IL Illinois 60657, US; Rodiguez, Rogelio, Plainfield, IL I ...

AB A method for controlling an internal combustion engine (10) limits emission of undesirable compounds of nitrogen and oxygen and provides increased transient power, the method comprising: operating the engine at a first power output by providing a first air/fuel mixture to a combustion chamber of the engine; receiving a request for an increased power output from the engine, that is greater than the first power output; providing a second air/fuel mixture to the combustion chamber of the engine, the second air/fuel mixture comprising a greater amount of fuel than the first air/fuel mixture; and treating a flow of exhaust gas with a non-urea aftertreatment to reduce a level of pollutant in the ...



TI **COPPER CONTAINING ZSM-34, OFF AND/OR ERI ZEOLITIC MATERIAL FOR SELECTIVE REDUCTION OF NOX**

PI **EP 02593212 A2** 22.05. 2013

AI 11806383 13.07.2011

PRI EP 20100715 10169692 15.07.2010

IC **B01D053/94** B01J029/76 B01J029/072

PA BASF SE, 67056 Ludwigshafen, DE

IN Bull, Ivor, Hopewell Junction NY 12533, US; Mueller, Ulrich, 67435 Neustadt, DE

AB [WO 2012007914 A2] The present invention relates to a copper containing ZSM-34, OFF and/or ERI zeolitic material having a silica to alumina mole ratio ranging from about 4 to about 50 and a copper content, reported as CuO, ranging from about 1 to about 10 wt.-%, based on the total weight of the calcined zeolitic material, and having an alkali metal content, reported as the metal oxide, of less than about 0.7 wt.-%.

A copper containing ZSM-34, OFF and/or ERI zeolitic material having a silica to alumina mole ratio ranging from about 4 to about 50 and a copper content, reported as CuO, ranging from about 1 to about 10 wt.-%, based on the total weight of the calcined zeolitic material, and having an alkali metal content, reported as the metal oxide, of less than 0.7 wt.-%.

TI **SYSTEM FOR UTILIZING WASTE HEAT OF AN INTERNAL COMBUSTION ENGINE**

PI **EP 02593656 A1** 22.05. 2013

AI 11733642 07.07.2011

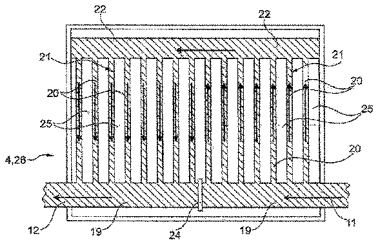
PRI DE 20100713 102010027068 13.07.2010

IC **F02G005/02** F01K023/06 F01N003/04 F01N005/02 F28D007/16

PA Behr GmbH & Co. KG, 70469 Stuttgart, DE

IN GESKES, Peter, 73760 Ostfildern, DE; IRMLER, Klaus, 72072 Tuebingen, DE; SCHMIDT, Michael, 74321 Bietigheim-Bissingen, DE; STREHLAU, Arthur ...

AB [US 2013125545 A1] A system for utilizing waste heat of an internal combustion engine via the Clausius-Rankine cycle process is provided that includes a circuit with lines containing a working medium, an evaporator heat exchanger which serves for evaporating the liquid working medium using waste heat of the internal combustion engine and which has an inlet opening for conducting the working medium into a flow duct and an outlet opening for conducting the working medium out of the flow duct, and the flow duct is divided into a plurality of flow duct parts connected hydraulically in parallel, an expansion machine, a condenser for liquefying the vaporous working medium, a collecting and compen ...



TI **Mixing and/or vaporisation device**

PI **EP 02594330 A1** 22.05. 2013

AI 12184846 18.09.2012

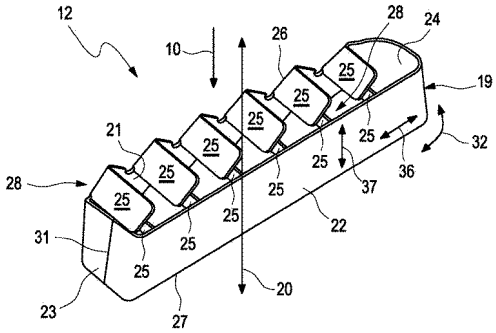
PRI DE 20110928 28.09.2011
102011083636

IC **B01F003/04** B01F005/04 B01F005/06 F01N003/28

PA J. Eberspaecher GmbH & Co. KG, 73730 Esslingen, DE

IN Leicht, Sebastian, 72406 Bisingen, DE; Neumann, Felix, 73732 Esslingen, DE; Arlt, Benjamin, 73773 Aichwald, DE; Semenov, Oleksandr, 73207 P ...

AB The vaporization device (12) has a carrier structure with circular cross-section that is arranged transverse to an axial direction (20) of the device. The carrier structure has two opposite long side walls and two opposite short side walls that are interconnected. Several guide vanes are provided at axial end of one long side wall and away from other long side wall in axial direction. Independent claims are included for the following: (1) an exhaust system; and (2) a selective catalytic reaction (SCR) catalytic converter.



TI **CORDIERITE ALUMINUM MAGNESIUM TITANATE COMPOSITIONS AND CERAMIC ARTICLES COMPRISING SAME**

PI **EP 02594543 A2** 22.05. 2013

AI 13152854 27.06.2007

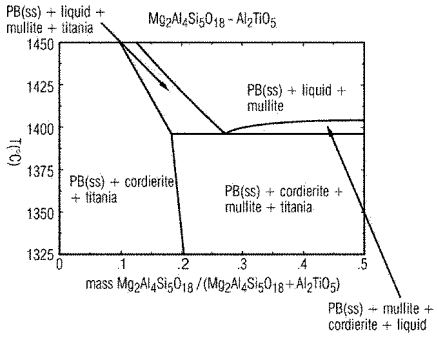
PRI US 20060630 817723 P 30.06.2006

IC **C04B035/478** C04B038/00 C04B035/195 C04B035/465 F01N003/022 B01D046/24 B01J035/04 C04B111/00 C04B111/20 C04B111/32

PA Corning Incorporated, Corning, New York 14831, US

IN Merkel, Gregory A., Corning, NY 14830, US; Tepesch, Patrick D., Corning, NY 14830, US; Wusirika, Raja R., Painted Post, NY 14870, US

AB [US 2010237007 A1] Disclosed are ceramic bodies comprised of composite cordierite aluminum magnesium titanate ceramic compositions and methods for the manufacture of the same.



TI **Holding sealing material, method for producing the holding sealing material, and exhaust gas purifying apparatus**

PI **EP 02594758 A1** 22.05. 2013

AI 12192376 13.11.2012

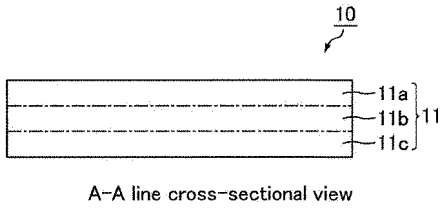
PRI JP 20111116 2011250995 16.11.2011

IC **F01N003/021** F01N003/28

PA Ibiden Co., Ltd., Ogaki-shi Gifu 503-8604, JP

IN Kumano, Keiji, Gifu, 503-8559, JP

AB The present invention provides a holding sealing material efficiently suppressing scattering of inorganic fibers and sufficiently satisfying properties required for a sealing material such as surface pressure and shear stress, and a method for producing the same. The present invention is a holding sealing material to be included in an exhaust gas purifying apparatus, the exhaust gas purifying apparatus comprising: an exhaust gas-treating body (130); a casing (120) for housing the exhaust gas-treating body; and the holding sealing material (110) formed of inorganic fibers disposed between the exhaust gas-treating body and the casing, wherein the holding sealing material includes a mat (11) i ...



A–A line cross–sectional view

TI **EXHAUST GAS PURIFICATION DEVICE FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02594759 A1** 22.05. 2013

AI 10824261 15.07.2010

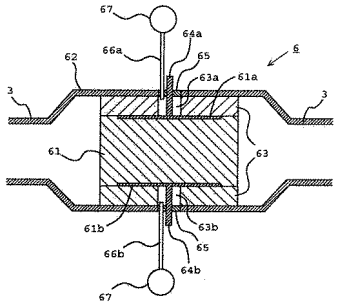
PRI EP 20100715 10824261 15.07.2010

IC **F01N003/20** F01N003/02 F01N003/28

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN YOSHIOKA, Mamoru, Toyota-shi Aichi 471-8571, JP; KUMAGAI, Noriaki, Toyota-shi Aichi 471-8571, JP; TAKAGI, Naoya, Toyota-shi Aichi 471-8571, ...

AB The present invention has for its subject to avoid a situation that condensed water stays around electrode terminals, in an electric heating type exhaust gas purification apparatus which is arranged in an exhaust system of an internal combustion engine. In order to solve this subject, the present invention resides in an exhaust gas purification apparatus of an internal combustion engine which is provided with a catalyst carrier having electrodes, a case in which the catalyst carrier is accommodated, a mat member arranged between the catalyst carrier and the case, a space part extending from the catalyst carrier to the case while passing through the mat member, and electrode terminals accomm ...



TI **Decoupling element for an exhaust system**

PI **EP 02594761 A2** 22.05. 2013

AI 12191677 07.11.2012

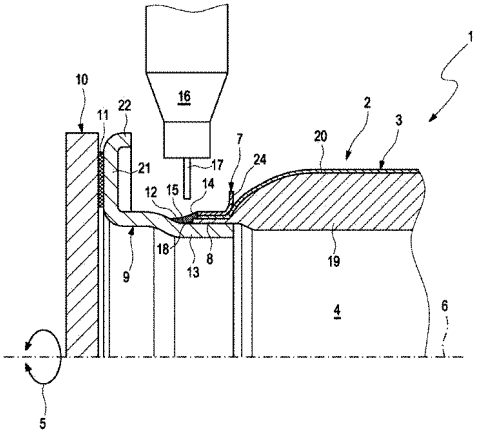
PRI DE 20111116 102011086463 16.11.2011

IC **F01N013/18** F16L027/111

PA J. Eberspaecher GmbH & Co. KG, 73730 Esslingen, DE

IN Schmitt, Markus, 66589 Merchweiler, DE; Schmidt, Michael, 66299 Friedrichsthal, DE

AB The decoupling element (2) has a resilient exhaust gas guiding portion (3) whose axial end section (8) is enclosed outside along circumferential direction (5) by a supporting ring (7). A flange (9) is connected with the guiding portion and secured by a weld seam (12) at supporting ring. The flange is provided with a connecting piece (13) inserted into the supporting ring. The weld seam is arranged circumferentially outside of guiding portion, turned away from axial front end of the supporting ring and connected with the external periphery (15) of the connecting piece.



TI **Method for controlling the burnt gas fraction in an engine cylinder with external and internal exhaust gas recirculation**

PI **EP 02594768 A1** 22.05. 2013

AI 12290358 18.10.2012

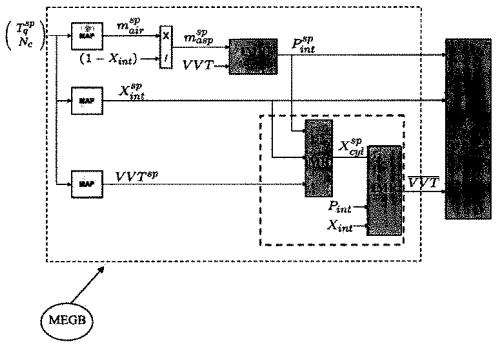
PRI FR 20111117 1103501 17.11.2011

IC **F02D041/00** F02D013/02 F02M025/07 F02D041/24 F02D041/10

PA IFP Energies Nouvelles, 92852 Rueil Malmaison Cedex, FR

IN Le Roy, Thomas, 78100 Saint Germian en Laye, FR; Chauvin, Jonathan, 75017 Paris, FR

AB The method involves acquiring a torque setpoint for an engine. Position setpoints for respective actuators are determined using a burnt gas flow model (MEGB), which relates the position setpoints of the actuators to the engine torque setpoint and includes a cylinder filling model (MR). The burnt gas flow model is constructed using engine maps (MAP) as a function of the torque setpoint associated with the filling model of the cylinder. A burnt gas fraction in the cylinder is controlled by applying the position setpoints to a variable distribution unit. An independent claim is also included for an internal combustion engine.



TI **Exhaust purification apparatus of engine**

PI **EP 02594769 A2** 22.05. 2013

AI 12190385 29.10.2012

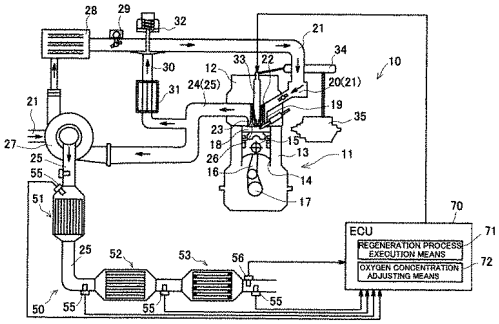
PRI JP 20111118 2011253292 18.11.2011

IC **F02D041/02** F02D041/40

PA Mitsubishi Jidosha Kogyo Kabushiki Kaisha, Tokyo 108-8410, JP

IN Kanayama, Kuniki, Tokyo, Tokyo 108-8410, JP; Koga, Noriyuki, Tokyo, Tokyo 108-8410, JP; Hata, Michihiro, Tokyo, Tokyo 108-8410, JP

AB An exhaust purification apparatus of an engine, which can regulate the temperature (Te1) of an exhaust purification catalyst (52) appropriately and which can release components of an exhaust efficiently by a regeneration process, is provided. When the regeneration process is performed by a regeneration process execution means (71), the oxygen concentration of the exhaust at the time of supply of hydrocarbon by the regeneration process execution means is adjusted, as appropriate, in accordance with a temperature difference (Te3) between the temperature of the exhaust purification catalyst and a set temperature (Te2).



TI **ENGINE CONTROL DEVICE**

PI **EP 02594771 A1** 22.05. 2013

AI 11806817 13.07.2011

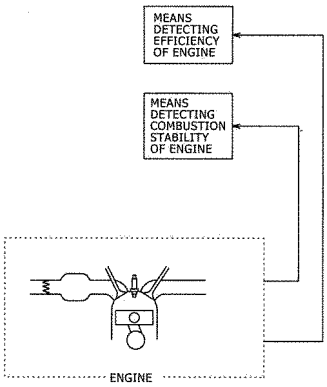
PRI JP 20100714 2010159254 14.07.2010

IC **F02D045/00** F02D041/06 F02D041/16 F02D043/00 F02P005/15

PA Hitachi Automotive Systems, Ltd., Hitachinaka-shi Ibaraki 312-8503, JP

IN NAKAGAWA Shinji, Hitachi-shi, Ibaraki 319-1292, JP; NUMATA Akihito, Hitachinaka-shi, Ibaraki 312-0062, JP; FUKUCHI Eisaku, Hitachinaka-shi, ...

AB The present invention relates to an exhaust performance diagnosis/control device of an engine, and relates specifically to a control device that diagnoses exhaust deterioration at the time of engine start or reduces exhaust gas at the time of start. HC discharged quantity at the time of engine start is diagnosed. The object of the present invention is to provide a means that detects efficiency of the engine,and a means that detects combustion stability of the engine, and to detect the HC discharged quantity until activation of a catalyst at the time of engine start based on efficiency of the engine and combustion stability of the engine.



TI **Unit for recovering and converting the thermal energy of the exhaust gases of an internal combustion engine of a vehicle**

PI **EP 02594772 A1** 22.05. 2013

AI 13155262 26.11.2010

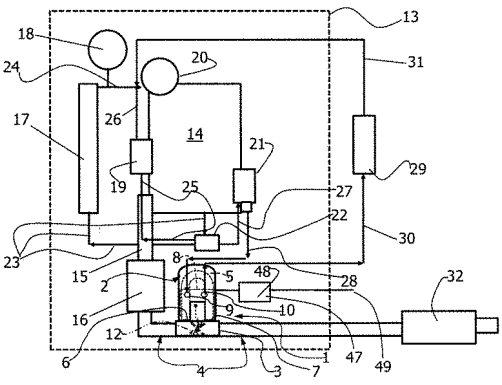
PRI EP 20100422 10425133 22.04.2010

IC **F02G005/02** F01N005/02

PA C.R.F. Societa Consortile per Azioni, 10043 Orbassano (Torino), IT

IN Magnetto, Daniela, 10043 Orbassano (Torino), IT

AB A unit (1, 1) for recovering and converting the thermal energy of the exhaust gases of an internal combustion engine (14) of a vehicle, comprising: - a heat exchanger (2, 2) including a main conduit (5, 5) arranged branching with respect to and fluid dynamically communicating with an exhaust pipe (4) of said internal combustion engine (14). The unit (1, 1) is characterised in that: - said main conduit (5, 5) of said heat exchanger (2, 2) has a substantially U-shaped geometry comprising an inlet section (6, 6) and an outlet section (7,7) for the exhaust gases, both fluid dynamically connected (3) to said exhaust pipe (14), - said heat exchanger (2, 2) is arranged along a transverse ...



TI **APPARATUS AND METHOD FOR AFTER-TREATMENT OF EXHAUST EMISSION FROM DIESEL ENGINE**

PI **WO 2013053088 A1** 18.04. 2013

AI 2011080562 09.10.2011

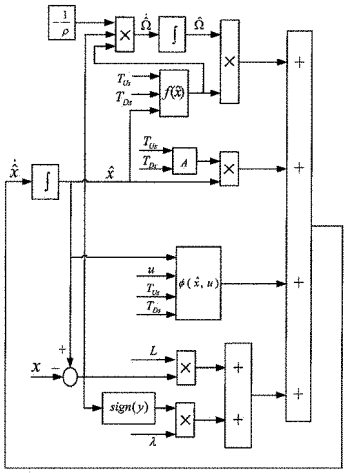
PRI WO 20111009 2011080562 09.10.2011

IC **F01N011/00** F01N009/00

PA WEICHAI POWER CO., LTD., CN; HU, GUANGDI, CN; SUN, SHAOJUN, CN

IN HU, GUANGDI, CN; SUN, SHAOJUN, CN

AB Disclosed is an apparatus (100) for use in a selective catalytic reduction system of a diesel engine, the selective catalytic reduction system comprising a catalytic converter for converting nitrogen oxides discharged by the diesel engine using ammonia. The apparatus (100) comprises an acquisition device (102) coupled to the catalytic converter and configured to acquire a measurement value of at least one condition of the catalytic converter; and a determination device (104) coupled to the acquisition device (102) and configured to determine the stored ammonia volume of the catalytic converter, based on the acquired measurement value, in order to determine the surface ammonia coverage rate ...



TI **HEATABLE MEDIA LINE HAVING AT LEAST ONE MEDIA LINE WITH TWO CONNECTOR ENDS**

PI **WO 2013053492 A1** 18.04. 2013

AI 2012004281 12.10.2012

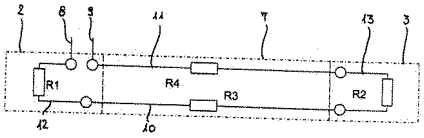
PRI DE 20111014 202011106751.7; DE 20111207 102011120358.7

IC **F16L053/00** F01N003/20

PA VOSS AUTOMOTIVE GMBH, DE

IN ETSCHEID, TOBIAS, DE; SCHWARZKOPF, OTFRIED, DE

AB [WO 2013053492 A1] The invention relates to a heatable media line (1,1a,1b,1c,1d) having at least one media line (7, 7a, 7b) with two connector ends (2,2a,2b>3,3a,3b), in particular line connectors, and at least two electrical heating elements (10,10a,10b,11,11a,11b,12,12a,12b,13,13a,13b). The invention is characterized in that at least one means is provided by which a differentiated heat input and/or output is enabled or provided for at both connector ends (2, 2a, 2b, 3, 3a, 3b) of the heatable media line.



TI **PIPE STRUCTURE AND EXHAUST SYSTEM**

PI **WO 2013053992 A1** 18.04. 2013

AI 2012050959 05.10.2012

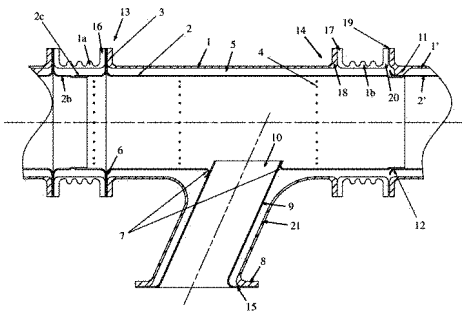
PRI FI 20111013 20116018 13.10.2011

IC **F16L009/18** B63H021/32 F01N013/00 F01N013/14 F01N013/18 F16L041/02 F16L059/075

PA WAERTSILAE FINLAND OY, FI

IN LAINE, JARKKO, FI; MAEENPAEAE, JUHO, FI

AB The pipe structure for an exhaust system of an internal combustion engine comprises an outer pipe (1) comprising a cylindrical section having a first end (13) and a second end (14), and an inner pipe (2) that is arranged coaxially inside the outer pipe (1) so that an empty space (5) is formed between the outer pipe (1) and the inner pipe (2). The inner pipe (2) comprises an outward projection (6,12) for engaging the inner pipe (2) with a radial projection (3,11,18) of the outer pipe (1).



TI **CONTROL DEVICE FOR INTERNAL COMBUSTION ENGINE**

PI **WO 2013054391 A1** 18.04. 2013

AI 2011073322 11.10.2011

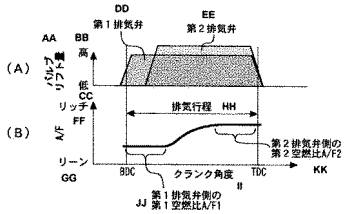
PRI WO 20111011 2011073322 11.10.2011

IC **F02D041/14**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; MORI, SACHIO, JP

IN MORI, SACHIO, JP

AB A control device for an internal combustion engine is provided with first and second intake ports (16a, 16b) independent of each other, and first and second fuel injection valves (30a, 30b) provided for the first and second intake ports (16a, 16b), respectively, in each cylinder. Under a situation where an exhaust variable valve mechanism (38) is controlled such that a first exhaust valve (32a) is opened earlier than a second exhaust valve (32b), first and second air-fuel ratios (A/F1, A/F2) are acquired, respectively, in the first half and the second half of an exhaust stroke. When the acquired first air-fuel ratio (A/F1) (or the second air-fuel ratio (A/F2)) is lean, the fuel injection qu ...



AA Valve lift quantity
BB Large
CC Small
DD First exhaust valve
EE Second exhaust valve
FF Rich
GG Lean
HH Exhaust stroke
II Crank angle
JJ First air-fuel ratio A/F1 on first exhaust valve side
KK Second air-fuel ratio A/F2 on second exhaust valve side

TI **GAS ANALYSIS APPARATUS**

PI **WO 2013054609 A1** 18.04. 2013

AI 2012072382 03.09.2012

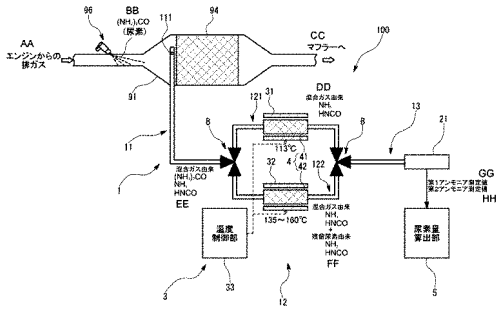
PRI JP 20111012 2011225294 12.10.2011

IC **G01N001/22** F01N003/08 G01N001/00 G01N031/00

PA HORIBA, LTD., JP; NAKATANI, SHIGERU, JP

IN NAKATANI, SHIGERU, JP

AB In order to degrade residual urea, without leakage thereof, included in exhaust gas discharged from an internal combustion engine and accurately measure the amount of residual urea, and to prevent pulverulent urea from sticking to a sensor or the like and thereby adversely effecting measurement precision and reliability, a gas analysis apparatus (100) is provided with a filter unit (4) which is disposed between a collection port (111) and generated matter measurement mechanisms (21, 22) inside a mixed gas collection tube (1) and which gathers urea either in a solid state within a mixed gas or in a state in which the urea is dissolved into water.



5 Urea amount calculation unit
33 Temperature control unit
AA Exhaust gas from engine
BB $(NH_2)_2CO$ (urea)
CC To muffler
DD NH_3, HNCO derived from mixed gas
EE $(NH_2)_2CO$, NH_3, HNCO derived from mixed gas
FF NH_3, HNCO derived from mixed gas + NH_3, HNCO derived from residual urea
GG First ammonia measurement value
HH Second ammonia measurement value

TI **METHOD FOR PRODUCING CERAMIC HONEYCOMB STRUCTURE, AND CERAMIC HONEYCOMB STRUCTURE**

PI **WO 2013054651 A1** 18.04. 2013

AI 2012074270 21.09.2012

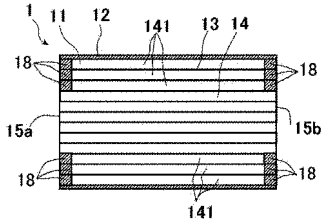
PRI JP 20111011 2011224019; JP 20120329 2012075616

IC **C04B041/85** B01D039/20 B01D046/00 B01J035/04 B01J037/02 B28B011/04 C04B038/00 F01N003/02 F01N003/28

PA HITACHI METALS, LTD., JP

IN SOGA WATARU, JP

AB A method for producing a ceramic honeycomb structure which is formed of a ceramic honeycomb body having a plurality of cells that extend in the axial direction and are formed of porous partition walls and an outer circumferential wall that is formed on the outer circumference of the ceramic honeycomb body. This method for producing a ceramic honeycomb structure is characterized by comprising: a step wherein a molded body having a ceramic honeycomb structure is formed by extruding a ceramic paste; a step wherein a ceramic honeycomb body that has grooves extending in the axial direction on the outer circumferential surface is formed by removing some of partition walls of cells positioned in t ...



TI **EXHAUST GAS RECIRCULATION DEVICE FOR INTERNAL COMBUSTION ENGINE**

PI **WO 2013054711 A1** 18.04. 2013

AI 2012075634 03.10.2012

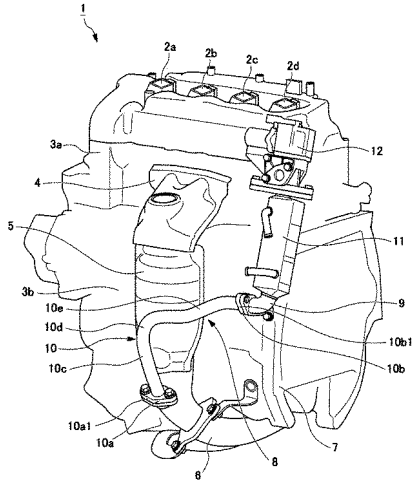
PRI JP 20111012 2011225123 12.10.2011

IC **F02M025/07** F01N003/24

PA HONDA MOTOR CO., LTD., JP

IN SEKIYA, NORITAKA, JP; KOMAKI, YUSAKU, JP

AB Provided is an exhaust gas recirculation device for an internal combustion engine, the device being configured, without an increase in the number of parts, so that stress concentrated on an EGR pipe and on the connection section thereof is dispersed. A first connection section (10a) for connecting an exhaust gas path, which is located immediately after a catalytic converter (5), and an upstream EGR pipe (10) is provided upstream of the upstream EGR pipe (10). A second connection section (10b) for connecting an EGR cooler (11) and the upstream EGR pipe (10) is provided downstream of the upstream EGR pipe (10) at a position above the first connection section (10a). The upstream EGR pipe (10) ...



TI **METHOD FOR PRODUCING CERAMIC HONEYCOMB STRUCTURE, AND CERAMIC HONEYCOMB STRUCTURE**

PI **WO 2013054793 A1** 18.04. 2013

AI 2012076140 09.10.2012

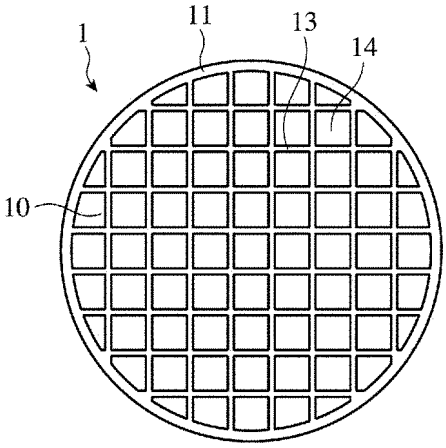
PRI JP 20111011 2011224389 11.10.2011

IC **C04B041/85** B01D039/20 B01D046/00 C04B038/00 C04B041/89 F01N003/10 F01N003/28

PA HITACHI METALS, LTD., JP

IN OKAZAKI SHUNJI, JP

AB A method for producing a ceramic honeycomb structure which is formed of: a ceramic honeycomb body having a plurality of cells that extend in the axial direction and are formed of porous partition walls having a porosity of 50% or more; and an outer circumferential wall that is formed on the outer circumference of the ceramic honeycomb body. This method for producing a ceramic honeycomb structure is characterized by comprising: a step wherein a molded body having a ceramic honeycomb structure is formed by extruding a ceramic paste; a step wherein a ceramic honeycomb body that has grooves extending in the axial direction on the outer circumferential surface is formed by removing some of parti ...



TI **METHOD AND APPARATUS FOR CLEANING DIESEL PARTICULATE FILTERS**

PI **WO 2013056378 A1** 25.04. 2013

AI 2012050752 22.10.2012

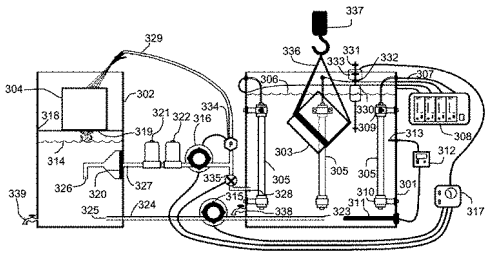
PRI US 20111020 61/549,596 20.10.2011

IC **B01D053/96** B01D046/04 B08B003/08 B60S005/00 F01N003/023

PA TEVELY, MARK, CA; KIESER, BYRON, CA

IN TEVELY, MARK, CA; KIESER, BYRON, CA

AB An apparatus and method for removing accumulated ash and soot fr om DPFs which uses a combination of ultrasonic energy coupled via a liquid cleaning solution to the internal and external surfaces of the DPF to dislodge and remove the accumulated materials, and a system of directing clean solution for rinsing of the filter elements by continuous filtration of the rinse solution, and a means of drawing residual material-laden cleaning solution from the filter to complete the cleaning process.



TI **METHOD OF CLEANING A PARTICLE FILTER**

PI **WO 2013056710 A1** 25.04. 2013

AI 2011050399 20.10.2011

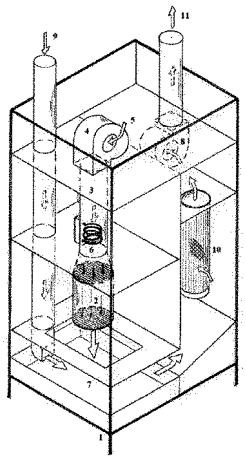
PRI WO 20111020 2011050399 20.10.2011

IC **F01N003/027** B01D041/04 B01D046/00

PA MUNCH MILJOE TEKNIK I/S, DK; MUNCH JAKOBSEN, BO, DK; MUNCH JAKOBSEN, KAJ, DK

IN MUNCH JAKOBSEN, BO, DK; MUNCH JAKOBSEN, KAJ, DK

AB There is provided a method of cleaning a diesel particle filter, in particular for combustion engines. The method involves positioning the diesel particle filter within a cleaning cabinet. In order to remove soot particles from the particle filter a flow of hot air is blown into the interior of the particle filter from the outlet side. The flow of hot air is regulated in a way that ensures efficient removal of burnt particles.



TI **METERING APPARATUS**

PI **WO 2013056963 A1** 25.04. 2013

AI 2012069028 27.09.2012

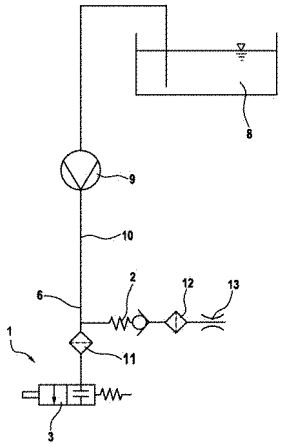
PRI DE 20111021 102011085020.1

IC **F01N003/20**

PA ROBERT BOSCH GMBH, DE; KRUEGER, JUERGEN, DE; KNITTEL, ACHIM, DE; MEINGAST, ULRICH, DE

IN KRUEGER, JUERGEN, DE; KNITTEL, ACHIM, DE; MEINGAST, ULRICH, DE

AB [WO 2013056963 A1] The invention relates to a metering apparatus for introducing a reductant into an exhaust pipe of an internal combustion engine, wherein the metering apparatus has a metering module (1) having a metering valve (3) and the metering module (1) is connected to a conveying apparatus (9) by means of a pressure line (10) and the metering apparatus has an apparatus for returning reductant from the reductant valve (3) at least into the pressure line (7). According to the invention, a metering apparatus is provided, by means of which a reliable return of reductant from the metering apparatus (3) at least into the pressure line (10) can be provided in order to achieve the ice-press ...



TI **DEVICE FOR MIXING COMPRESSED AIR AND LIQUID REDUCING AGENT**

PI **WO 2013056973 A1** 25.04. 2013

AI 2012069376 01.10.2012

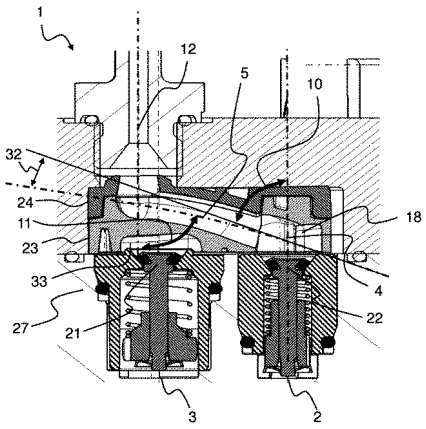
PRI DE 20111019 102011116336.4

IC **F01N003/20**

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE; MARTINELLE, GUILLAUME, FR; MERTES, PHILIPPE, FR; MAGUIN, GEORGES, FR

IN MARTINELLE, GUILLAUME, FR; MERTES, PHILIPPE, FR; MAGUIN, GEORGES, FR

AB [WO 2013056973 A1] The invention relates to a device (1) for providing a mixture of compressed air and liquid reducing agent, having a first inflow duct (2) for reducing agent and having a second inflow duct (3) for compressed air, having an outlet duct (12) for the mixture. In the device a mixing point (4) at which compressed air and reducing agent are merged, and a mixing duct (5) which adjoins the mixing point (4) and which connects the mixing point (4) and the outlet duct (12) are provided. The first inflow duct (2) opens into the mixing point in an axial direction (25). The second inflow duct (3) is connected to the mixing point (4) via at least one injection duct (7), wherein the at l ...



TI **DELIVERY DEVICE WITH PROTECTION AGAINST FREEZING**

PI **WO 2013056974 A1** 25.04. 2013

AI 2012069379 01.10.2012

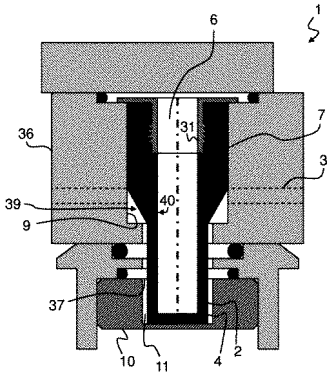
PRI DE 20111019 102011116335.6

IC **F01N003/20**

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE; TRUONG, ANTHONY, FR

IN TRUONG, ANTHONY, FR

AB [WO 2013056974 A1] The invention relates to a delivery device (1) for delivering reducing agent into an exhaust-gas treatment device (15), having at least one delivery duct (3) with at least one flexible wall region (4). The flexible wall region (4) can deform when reducing agent in the delivery duct (3) freezes. The flexible wall region (4) separates the delivery duct (3) from a compressed-air chamber (6) which is connected to a compressed-air source (16).



TI **METHOD FOR OPERATING A FEED PUMP WHICH OPERATES IN A PULSATING FASHION**

PI **WO 2013057178 A1** 25.04. 2013

AI 2012070634 18.10.2012

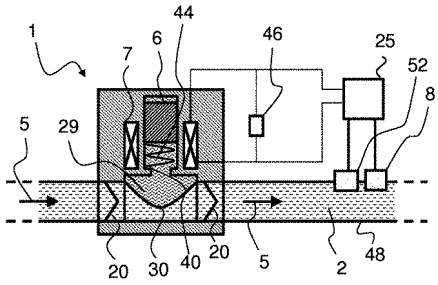
PRI EP 20111021 11290489.1 21.10.2011

IC **F04B043/04** F04B049/06

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE

IN BAUER, PETER, DE; HODGSON, JAN, DE; MAGUIN, GEORGES, FR

AB The invention relates to a method for operating a feed pump (1), which operates in a pulsating fashion, in a feed unit (2) for feeding a liquid operating substance (3) for a motor vehicle (4) with a feeding direction (5). The feed pump (1) has a feed piston (6) and a drive coil (7) for driving the feed piston (6), and the feed unit (2) has a pressure sensor (8) downstream of the feed pump (1) in the feeding direction (5). In the method, a voltage profile (9) is firstly applied to the drive coil (7). A feed stroke (10) of the feed piston (6) is subsequently carried out in accordance with the voltage profile (9). In this context, a pressure profile (11) in the feed unit (2) downstream of the ...



TI **ELECTRICALLY HEATED CATALYST**

PI **WO 2013057792 A1** 25.04. 2013

AI 2011073936 18.10.2011

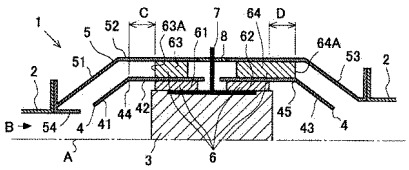
PRI WO 20111018 2011073936 18.10.2011

IC **F01N003/20**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; YOSHIOKA, MAMORU, JP

IN YOSHIOKA, MAMORU, JP

AB The purpose of the present invention is to suppress flow of electricity in a case (5) for an electrically heated catalyst (1). This electrically heated catalyst (1) is provided with: a heating element (3) that generates heat by the flow of electricity; a case (5) that accommodates the heating element (3); an inner tube (4) that is provided between the heating element (3) and the case (5) and insulates electricity; an inside mat (62) provided between the heating element (3) and the inner tube (4); and an outside mat (64) provided between the inner tube (4) and the case (5). The inner tube (4) is provided with a tube shaped part (42) that is provided around the heating element (3) and formed ...



TI **SIMULATED GAS SUPPLY DEVICE**

PI **WO 2013057990 A1** 25.04. 2013

AI 2012068215 18.07.2012

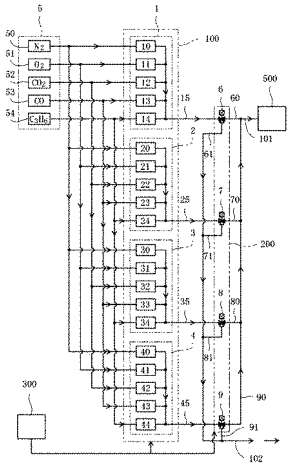
PRI JP 20111018 2011228767 18.10.2011

IC **G01M015/10** B01D053/86 F01N003/00

PA BEST INSTRUMENTS CO., LTD., JP; TAKAMIYA, AKITOYO, JP; TAKAHASHI, KOTARO, JP

IN TAKAMIYA, AKITOYO, JP; TAKAHASHI, KOTARO, JP

AB The device is provided with: a starting material gas supply set (5) obtained by gathering multiple starting material gas supplies; flow controller sets (1, 2, 3, 4) obtained by gathering multiple flow controllers; a flow controller system (100) obtained by gathering the multiple flow controller sets (1, 2, 3, 4); a simulated gas supply tube (101) for supplying the simulated gas to an evaluation device (500); a simulated gas exhaust tube (102) for exhausting the simulated gas without supplying same to the evaluation device; a switching valve system (200), which has switching valves (6, 7, 8, 9) that switch the simulated gas flow path to the simulated gas supply tube (101) or to the simulated ...



TI **MAT MATERIAL AND EXHAUST GAS PURIFICATION DEVICE**

PI **WO 2013058108 A1** 25.04. 2013

AI 2012075607 03.10.2012

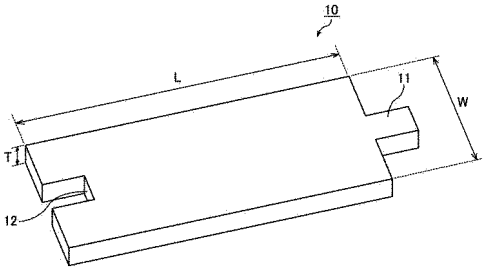
PRI JP 20111021 2011231971 21.10.2011

IC **F01N003/28** B01D053/94 D04H001/4218 F01N003/022

PA IBIDEN CO., LTD., JP

IN NISHI AKIHITO, JP

AB The purpose of the present invention is to provide a mat material that is less susceptible to reduction in holding power. The mat material of the present invention is a mat material comprising glass fibers, wherein the mat material is characterized in that the glass fibers contain 52 to 66 wt% of SiO2, 9 to 26 wt% of Al2O3, 15 to 27 wt% of CaO, 0 to 9 wt% of MgO, 0 to 4 wt% of TiO2, 0 to 5 wt% of ZnO, and a total of 0 to 2 wt% of Na2O and K2O, but contain substantially no B2O3.



TI **EXHAUST REDUCTION DEVICE FOR DIESEL GENERATOR**

PI **WO 2013058498 A2** 25.04. 2013

AI 2012008263 11.10.2012

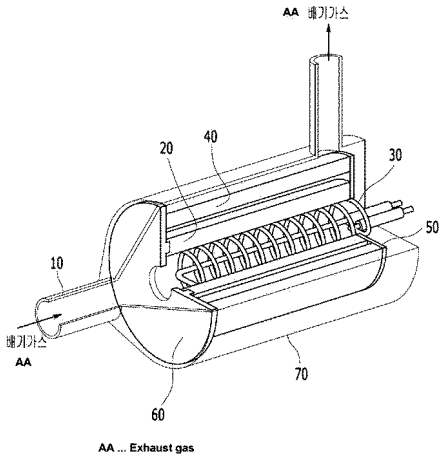
PRI KR 20111021 1020110108086 21.10.2011

IC **F01N003/28** B01D053/94 F01N003/021

PA ALANTUM, KR

IN PARK, MAN-HO, KR; LEE, EUI-SUNG, KR; BAE, JUNGSUK, KR

AB Disclosed is an exhaust reduction device for a diesel generator, to which a metal foam and a resistance heating element. The exhaust reduction device for the diesel generator, according to the present invention, comprises: an exhaust gas pipe for guiding exhaust gas that is discharged from the diesel generator; an oxidation catalyst portion which is formed opposite the exhaust gas pipe and has a hollow shape comprised of the metal foam; the resistance element which is formed on an inner circumference of the oxidized catalyst portion; a diesel fine particle filter portion which encases the oxidized catalyst portion in a radial direction with a distance therebetween and has a hollow shape com ...



TI **EXHAUST REDUCTION DEVICE USING METAL FOAM**

PI **WO 2013058499 A2** 25.04. 2013

AI 2012008264 11.10.2012

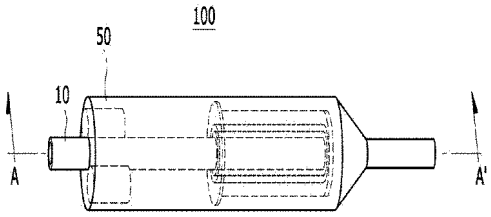
PRI KR 20111021 21.10.2011
1020110108085

IC **F01N003/28** B01D053/94 F01N003/022

PA ALANTUM, KR

IN PARK, MAN-HO, KR; LEE, EUI-SUNG, KR; BAE, JUNGSUK, KR

AB Disclosed is an exhaust reduction device to which a metal foam is applied. The exhaust reduction device, according to the present invention, comprises: an exhaust gas pipe for guiding exhaust gas which is discharged from an internal combustion engine; an oxidized catalyst portion, which is coupled to one end of the exhaust gas pipe so as to communicate with the exhaust gas pipe, and has a hollow shape comprising the metal foam; a diesel fine particle filter portion which encases the oxidized catalyst portion in a radial direction with a distance therebetween and has a hollow shape comprised of the metal foam; a flange, which is coupled to one end of the oxidized catalyst portion and the die ...



TI **VEHICLE EXHAUST GAS DILUTING DEVICE**

PI **WO 2013058683 A1** 25.04. 2013

AI 2011000183 20.10.2011

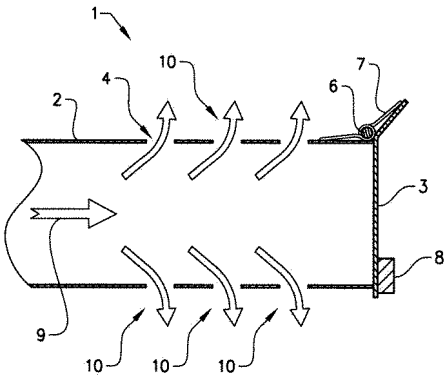
PRI WO 20111020 2011000183 20.10.2011

IC **F01N013/08** F01N003/023 F01N003/05

PA VOLVO LASTVAGNAR AB, SE; ETEMAD, SASSAN, SE; WIKLUND, TORBJOERN, SE; AXELSSON, JESPER, SE

IN ETEMAD, SASSAN, SE; WIKLUND, TORBJOERN, SE; AXELSSON, JESPER, SE

AB An exhaust gas control device, comprising an exhaust tail pipe and an exhaust outlet cover, where the exhaust tail pipe comprises a plurality of radial openings near the exhaust outlet, where the exhaust outlet cover is in a closed state when the exhaust mass flow is below a first mass flow level such that the exhaust gas is distributed through the radial openings, and where the exhaust outlet cover opens when the exhaust mass flow rises above the first mass flow level. The advantage of the invention is that hot exhaust gas generated during the regeneration of a diesel particulate filter is diluted and mixed with cool ambient air when the vehicle is standing still with the engine running wi ...



TI **EXHAUST MANIFOLD FOR EXHAUST GASES FROM A MULTI CYLINDER COMBUSTION ENGINE**

PI **WO 2013058700 A1** 25.04. 2013

AI 2012051082 10.10.2012

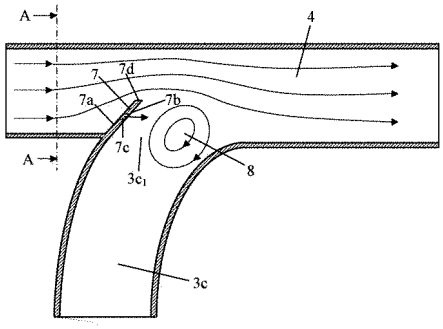
PRI SE 20111020 11509718 20.10.2011

IC **F01N013/10**

PA SCANIA CV AB, SE; KONSTANZER, DENNIS, SE

IN KONSTANZER, DENNIS, SE

AB The present invention relates to a manifold for receiving exhaust gases from a multi-cylinder combustion engine (1). The manifold comprises a common line (4), a first branch line (3a-c) adapted to receiving exhaust gases from a first cylinder (2a-c) and to leading them into the common line (4) via a first outlet aperture (3a1-3c1), and at least one second branch line (3b-d) adapted to receiving exhaust gases from a second cylinder (2b-d) and to leading them into the common line (4) via a second outlet aperture (3b1-3d1) situated downstream of the first outlet aperture with respect to the intended direction of flow of the exhaust gases in the common line (4). The manifold is provided with a ...



TI **CATALYST COMPOSITION AND METHOD FOR USE IN SELECTIVE CATALYTIC REDUCTION OF NITROGEN OXIDES**

PI **WO 2013060341 A1** 02.05. 2013

AI 2011005344 24.10.2011

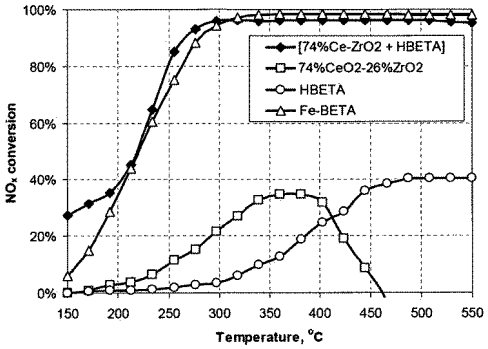
PRI WO 20111024 2011005344 24.10.2011

IC **B01J023/72** B01D053/94 B01J029/70

PA HALDOR TOPSOEE A/S, DK; STAKHEEV, ALEXANDR, RU; GRILL, MARIE, DK; KUSTOV, ARKADY, DK

IN STAKHEEV, ALEXANDR, RU; GRILL, MARIE, DK; KUSTOV, ARKADY, DK

AB Catalyst composition for selective reduction of nitrogen oxides and soot oxidation comprising a physical mixture of one or more acidic zeolite or zeotype components with one ore more redox active metal compounds and a method for selective reduction of nitrogen oxides and soot oxidation by use of the catalyst composition.



TI **EXHAUST PURIFICATION DEVICE**

PI **WO 2013060414 A1** 02.05. 2013

AI 2012004193 06.10.2012

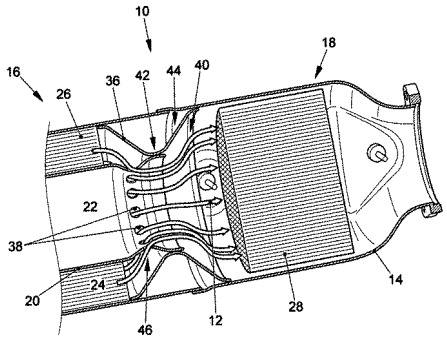
PRI DE 20111027 102011117090.5

IC **F01N003/28** F01N013/02 F01N013/04

PA VOLKSWAGEN AKTIENGESELLSCHAFT, DE

IN TOELLE, STEFAN, DE

AB [WO 2013060414 A1] The invention relates to an exhaust purification device (10) comprising a) an outer pipe (14) through which an exhaust stream (12) can flow; b) an inner pipe (20) arranged in a first section (16) of the outer pipe (14) which divides an inner chamber of the first section (16) into a central flow path (22) and a peripheral flow path (24), wherein a first exhaust purification device (26) is arranged in the central flow path (22) and/or in the peripheral flow path (24); c) means (30, 32) for selective direction of an exhaust stream through the central flow path (22) and/or through the peripheral flow path (24) and d) a second exhaust purification device arranged in a second s ...



TI **CATALYST COMPOSITION AND METHOD FOR USE IN SELECTIVE CATALYTIC REDUCTION OF NITROGEN OXIDES**

PI **WO 2013060487 A1** 02.05. 2013

AI 2012058003 02.05.2012

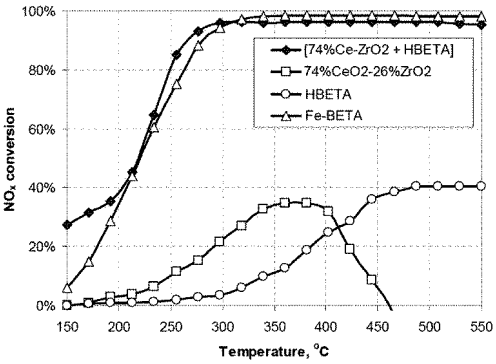
PRI EP 20111024 PCT/EP2011/005344

IC **B01J023/72** B01D053/94 B01J029/70

PA HALDOR TOPSOEE A/S, DK; STAKHEEV, ALEXANDR YU, RU; GRILL, MARIE, DK; KUSTOV, ARKADY, DK

IN STAKHEEV, ALEXANDR YU, RU; GRILL, MARIE, DK; KUSTOV, ARKADY, DK

AB Catalyst composition for selective reduction of nitrogen oxides and soot oxidation comprising a physical mixture of one or more acidic zeolite or zeotype components with one ore more redox active metal compounds and a method for selective reduction of nitrogen oxides and soot oxidation by use of the catalyst composition.



TI **MIXER ARRANGEMENT FOR REDUCING AGENT PREPARATION**

PI **WO 2013060598 A1** 02.05. 2013

AI 2012070478 16.10.2012

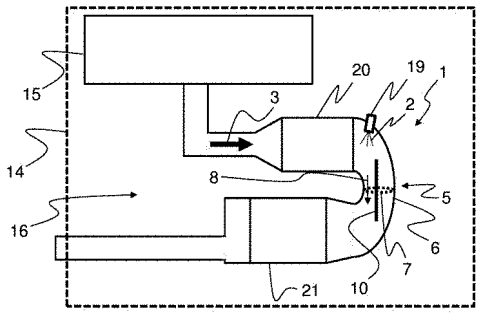
PRI DE 20111028 102011117139.1

IC **B01F003/04** B01F005/06 F01N003/20

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE; VOLKSWAGEN AKTIENGESELLSCHAFT, DE

IN NAGEL, THOMAS, DE; ALBERTI, PETER, DE

AB [WO 2013060598 A1] Mixer arrangement (1) for mixing an additive (2) with an off-gas stream (3), wherein the mixer arrangement comprises at least one overflow surface which is arranged in a mixing section of an off-gas conduit. The off-gas conduit (6) has a cross section (7) and a main flow direction (8) of the off-gas stream (3). The mixer arrangement is characterized, in particular, in that the at least one overflow surface (4) is arranged centrally in the mixing section (5) and is directed along the main flow direction (8) of the off-gas stream (3), wherein in the overflow surface (4) a multiplicity of closed depressions (9) are formed. A mixer arrangement is proposed that permits an exce ...



TI **SYSTEM FOR ATTACHING A REDUCER CARTRIDGE TO A HOLDER**

PI **WO 2013060957 A1** 02.05. 2013

AI 2012052208 28.09.2012

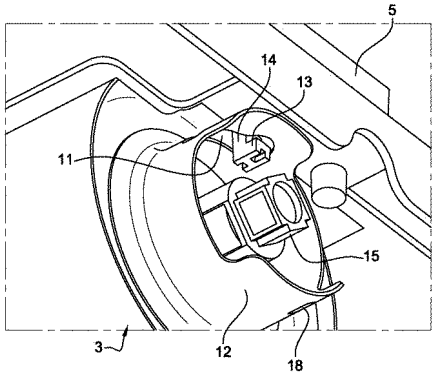
PRI FR 20111028 1159824 28.10.2011

IC **F01N013/18** B60K013/04 F01N003/20

PA PEUGEOT CITROEN AUTOMOBILES SA, FR

IN GRISE, CLEMENT, FR; WIDEMANN, STEPHANE, FR

AB The invention relates to a system for attaching a reducer cartridge (3) to a holder (5) suitable for being attached to a motor vehicle. According to the invention, the attachment system includes a holding system configured such as to define a position for holding the cartridge (3), wherein the same is situated at a holding location, and such as to stabilize the cartridge (3) in said position after rotating same from an angular positioning position, in which the holding system enables the cartridge (3) to be moved closer to a bottom wall of the holder (5) into the holding position and into an angular stabilizing position in which the holding system prevents the cartridge (3) from being moved ...



TI **METHOD AND DEVICE FOR ADJUSTING THE CONSUMPTION OF A POLLUTION-REMOVING AGENT BY AN EXHAUST LINE OF A HYBRID VEHICLE ACCORDING TO THE VARIOUS PROPULSION MODES**

PI **WO 2013060958 A1** 02.05. 2013

AI 2012052221 01.10.2012

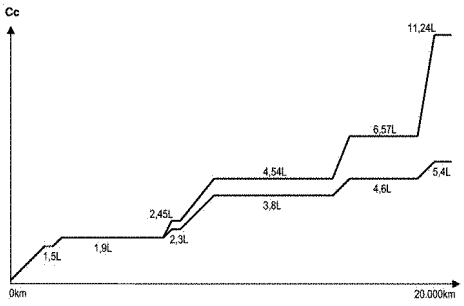
PRI FR 20111024 1159631 24.10.2011

IC **F01N003/20**

PA PEUGEOT CITROEN AUTOMOBILES SA, FR

IN GAILLARD, PATRICK, FR; SOUCHON, VINCENT, FR

AB The invention relates to a method and to device for adjusting the consumption of a pollution-removing agent by an exhaust line of a hybrid vehicle, according to the various propulsion modes already implemented for the hybrid vehicle. Said method is characterized in that, for a distance (Ddp) already traveled, a total quantity (Qcr) of the agent actually consumed is calculated, and if said total quantity (Qcr) actually consumed is less than the total quantity of the agent based on the estimated average consumption (Ci) for the remaining distance to be traveled, the quantity of pollution-removing agent injected into the exhaust line is increased. The invention is applicable to the field of hy ...



TI **CATALYST-DEGRADATION DETECTION DEVICE**

PI **WO 2013061394 A1** 02.05. 2013

AI 2011074439 24.10.2011

PRI WO 20111024 2011074439 24.10.2011

IC **F02D045/00** F01N003/20 F02D041/14

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; AOKI, KEIICHIRO, JP; HAYASHITA, GO, JP; SASAKI, TAKANORI, JP

IN AOKI, KEIICHIRO, JP; HAYASHITA, GO, JP; SASAKI, TAKANORI, JP

AB The present invention relates to a catalyst-degradation detection device, and the purpose of the present invention is to provide a catalyst-degradation detection device capable of assessing with high precision the degradation of a three-way catalyst even when the amount of catalyst used is reduced. The amount of oxygen stored by metallic cerium during the storage cycle (oxygen storage amount (OSA)) is found on the basis of the output value of an A/F sensor (18) just before the exhaust air-fuel ratio (downstream A/F ratio) detected by the A/F sensor (18) moves into the lean region, and degradation related to the oxygen storage capacity of the three-way catalyst is detected. The target air-fu ...

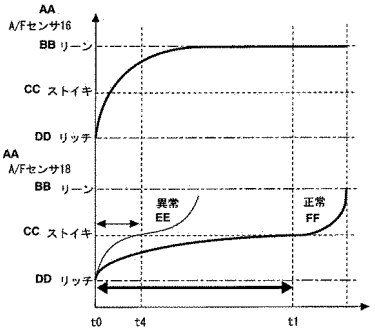


FIG. 3:
AA A/F sensor
BB Lean
CC Stoichiometric
DD Rich
EE Abnormal
FF Normal

TI **DEVICE FOR CONTROLLING INTERNAL COMBUSTION ENGINE**

PI **WO 2013061421 A1** 02.05. 2013

AI 2011074679 26.10.2011

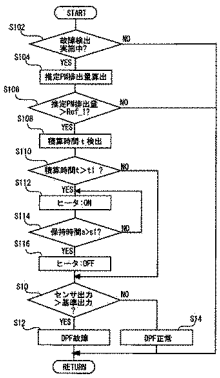
PRI WO 20111026 2011074679 26.10.2011

IC **F01N003/023** F01N003/08 G01N015/06 G01N027/22

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; HASHIDA, TATSUHIRO, JP; NISHIJIMA, HIROKI, JP

IN HASHIDA, TATSUHIRO, JP; NISHIJIMA, HIROKI, JP

AB In the exhaust pathway (4) of an internal combustion engine (2) to which the present invention is applied, an SCR system (8) is disposed, and a microparticle sensor (14) is disposed downstream therefrom. A control device (16) is provided with a temperature control means for controlling the temperature of an element of the microparticle sensor. Here, the temperature control means starts detection by the microparticle sensor of the amount of microparticles, and then, if the integrated value (t) of the time for which the microparticle sensor was used in a specific operating state has reached a baseline time (t1), performs control that increases the temperature of the element of the micropartic ...



S10 Sensor output > baseline output?
S12 DPF breakdown
S14 DPF normal
S102 Breakdown detection being executed?
S104 Calculate estimated amount of PM discharge
S106 Estimated amount of PM discharge > Ref_t?
S108 Detect integrated time (t)
S110 Integrated time t > t1?
S112 Heater: ON
S114 Holding time s > s1?
S116 Heater: OFF

TI **DEVICE FOR CONTROLLING INTERNAL COMBUSTION ENGINE**

PI **WO 2013061422 A1** 02.05. 2013

AI 2011074680 26.10.2011

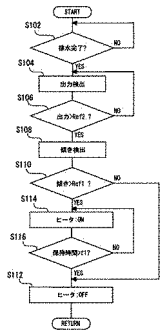
PRI WO 20111026 2011074680 26.10.2011

IC **F01N003/023** F01N003/08 G01N015/06 G01N027/22

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; HASHIDA, TATSUHIRO, JP; NISHIJIMA, HIROKI, JP

IN HASHIDA, TATSUHIRO, JP; NISHIJIMA, HIROKI, JP

AB In the present invention, an internal combustion engine (2) is provided with: an SCR system (8) disposed in an exhaust pathway (4); and a microparticle sensor (14) that is disposed downstream of the SCR system and that generates an output in accordance with the amount of microparticles adhered to an element. A control device (16) that controls the internal combustion engine (2) has a detection means that detects the state of urea-related substances being adhered to the element, and has a temperature control means that increases the element to a first temperature region when the state of urea-related substances being adhered is detected. Here, the first temperature region is a temperature re ...



S102 Drainage complete?
S104 Output detection
S106 Output > Ref2?
S108 Tilt detection
S110 Tilt > Ref1?
S112 Heater: OFF
S114 Heater: ON
S116 Holding time > t1?

TI **CONTROL DEVICE FOR SPARK IGNITION INTERNAL COMBUSTION ENGINE**

PI **WO 2013061697 A1** 02.05. 2013

AI 2012073044 10.09.2012

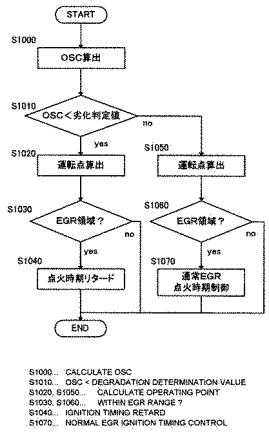
PRI JP 20111024 2011232678 24.10.2011

IC **F02D021/08** F01N003/20 F01N003/24 F02M025/07 F02P005/152 F02P005/153

PA NISSAN MOTOR CO., LTD., JP; KOGA, MASAKI

IN KOGA, MASAKI

AB The present invention is provided with: an exhaust gas return unit capable of returning exhaust gas that has passed through a catalyst for purifying the exhaust gas to an intake passage; an ignition timing control means for setting an ignition timing retard amount capable of preventing knocking according to the NOx concentration in the exhaust gas while the exhaust gas is being returned; an NOx concentration estimation means for estimating the NOx concentration in the exhaust gas; and a purification performance degradation determination means for determining the degradation of the purification performance of the catalyst. When the purification performance degradation determination means det ...



TI **EXHAUST GAS PURIFICATION DEVICE OF INTERNAL COMBUSTION ENGINE**

PI **WO 2013061860 A1** 02.05. 2013

AI 2012076981 18.10.2012

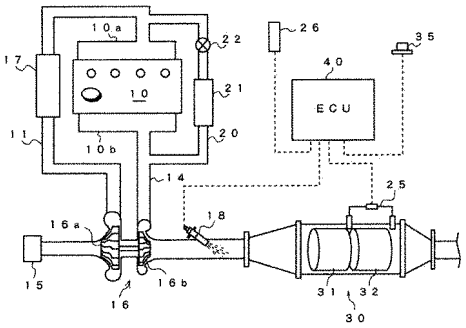
PRI JP 20111028 2011237230 28.10.2011

IC **F01N003/023** F01N003/025 F01N003/029

PA ISUZU MOTORS LIMITED, JP

IN KUBO HIROSHI, JP; ONODERA TAKAO, JP; SATOU HITOSHI, JP; KAJIYAMA MASAHIRO, JP; MURATA TETSUYA, JP; YAGINUMA KENZOU, JP; ISHIKAWA HIROYUKI, ...

AB This invention relates to an exhaust gas purification device of an internal combustion engine, wherein fuel efficiency is effectively increased by suppressing wasteful supply of fuel to the oxidation catalyst. This exhaust gas purification device is provided with: an exhaust after-treatment device (30) which is provided in an exhaust passage (14) of the internal combustion engine (10) and in which are arranged an oxidation catalyst (31) and a DPF (32); an exhaust pipe injector (18) which supplies fuel to the oxidation catalyst (31); and a control unit (44, 45) which controls regeneration of the filter (32) by supplying fuel to the oxidation catalyst (31) by means of the exhaust pipe injecto ...



TI **HONEYCOMB STRUCTURE**

PI **WO 2013061872 A1** 02.05. 2013

AI 2012077078 19.10.2012

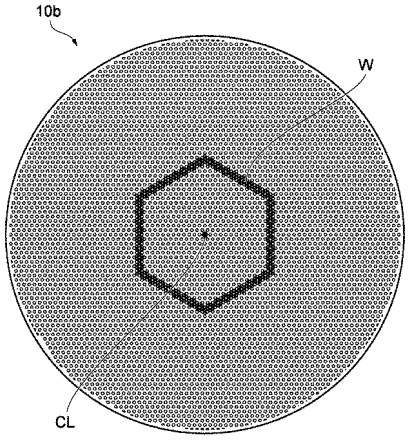
PRI JP 20111028 2011237775 28.10.2011

IC **B01D039/20** B01D046/00 B28B011/02 F01N003/022

PA SUMITOMO CHEMICAL COMPANY, LIMITED, JP

IN IWASAKI KENTARO, JP; KAWAUCHI TATSURO, JP; YOSHINO HAJIME, JP; KOMORI TERUO, JP

AB Provided is a honeycomb structure with which reduction in filter performance due to the occurrence of circular cracks can be limited and the expansion of circular cracks can be limited. The invention is a columnar honeycomb structure (10) that extends along a central axis (CL). The structure has a first end face (10a) and a second end face (10b) that are opposite each other in the direction of the central axis (CL) and partition walls (10c) that form multiple first flow paths (Ra) and multiple second flow paths (Rb) that extend along the central axis (CL). The first flow paths (Ra) are open on the first end face (10a) side and closed on the second end face (10b) side. The second flow paths ...



TI **CATALYST FOR EXHAUST GAS PURIFICATION, AND METHOD FOR MANUFACTURING SAME**

PI **WO 2013061933 A1** 02.05. 2013

AI 2012077264 22.10.2012

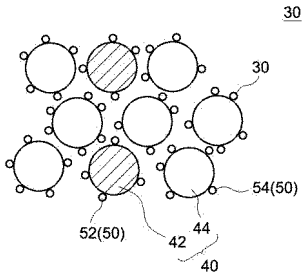
PRI JP 20111026 2011235359 26.10.2011

IC **B01J023/58** B01D053/94 F01N003/10

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP

IN AOKI, YUKI, JP

AB A catalyst for exhaust gas purification disclosed herein is provided with: a porous carrier (40) and palladium (50) supported by the porous carrier (40). The porous carrier (40) is provided with an alumina carrier (42) comprising alumina, and a CZ carrier (44) comprising a ceria-zirconia complex oxide. Barium is added to each of the alumina carrier (42) and the CZ carrier (44). Here, the amount of barium added to the alumina carrier (42) corresponds to 10-15 mass% relative to the total mass of the alumina carrier (42) excluding the barium, and the amount of barium added to the CZ carrier (44) corresponds to 5-10 mass% relative to the total mass of the CZ carrier (44) excluding the barium.



TI **WELD STRUCTURE OF THIN MEMBER AND ATTACHMENT MEMBER**

PI **WO 2013062094 A1** 02.05. 2013

AI 2012077758 26.10.2012

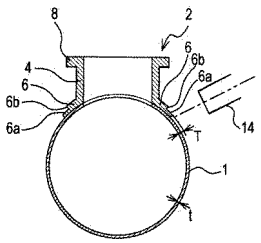
PRI JP 20111026 2011235117 26.10.2011

IC **B23K009/00** B23K009/02 B23K009/028 F01N013/00 F01N013/18 F01N099/00

PA FUTABA INDUSTRIAL CO., LTD., JP

IN MIZUKAMI, NAOKI, JP; MORII, HIDEYUKI, JP

AB An aspect of the present invention is a weld structure of a thin member and an attachment member. In the weld structure, a thin member and a flange part of an attachment member with a greater thermal capacity than the thin member are overlapped and the thin member is fillet welded to the outer edge of the flange part with arc welding. The thickness of the outer edge of the flange part is made thinner according to the thickness of the thin member.



TI **PROCESS FOR PRODUCING CERIA-ZIRCONIA-ALUMINA COMPOSITE OXIDES AND APPLICATIONS THEREOF**

PI **WO 2013062842 A1** 02.05. 2013

AI 2012060747 18.10.2012

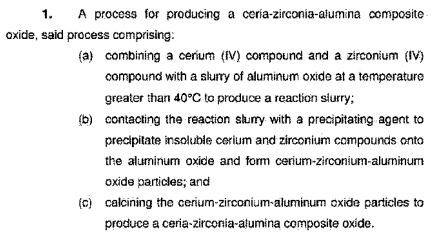
PRI US 20111027 13/283,123 27.10.2011

IC **B01D053/94** B01J023/00 B01J037/03 B01J037/08

PA JOHNSON MATTHEY PUBLIC LIMITED COMPANY, GB; CHANG, HSIAO-LAN, US; CAUFFMAN, SCOTT DANIEL, US; CHEN, HAI-YING, US; ANDERSEN, PAUL JOSEPH, US

IN CHANG, HSIAO-LAN, US; CAUFFMAN, SCOTT DANIEL, US; CHEN, HAI-YING, US; ANDERSEN, PAUL JOSEPH, US

AB A process for producing a ceria-zirconia-alumina composite oxide is disclosed. The process comprises combining a cerium (IV) compound and a zirconium (IV) compound with a slurry of aluminum oxide at a temperature greater than 40 Grad C to produce a reaction slurry, then contacting the reaction slurry with a precipitating agent to precipitate insoluble cerium and zirconium compounds onto the aluminum oxide and form cerium-zirconium-aluminum oxide particles, and calcining the cerium-zirconium-aluminum oxide particles to produce a ceria-zirconia-alumina composite oxide. The process to produce ceria-zirconia-alumina composite oxides provides a material having a high oxygen storage/release capac ...


1. A process for producing a ceria-zirconia-alumina composite oxide, said process comprising:

(a) combining a cerium (IV) compound and a zirconium (IV) compound with a slurry of aluminum oxide at a temperature greater than 40°C to produce a reaction slurry;

(b) contacting the reaction slurry with a precipitating agent to precipitate insoluble cerium and zirconium compounds onto the aluminum oxide and form cerium-zirconium-aluminum oxide particles; and

(c) calcining the cerium-zirconium-aluminum oxide particles to produce a ceria-zirconia-alumina composite oxide.

TI **SYSTEM AND METHOD FOR MANUFACTURING A HONEYCOMB BODY**

PI **WO 2013063754 A1** 10.05. 2013

AI 2011081618 01.11.2011

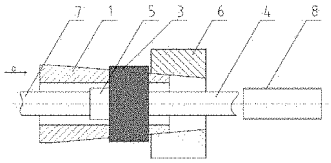
PRI WO 20111101 2011081618 01.11.2011

IC **F01N003/28** B01J035/04

PA BASF CORPORATION, US; CHU, GENGSHENG, CN; DENG, SHUIPING, CN; ZHANG, YUQIN, CN; LIU, YE, US; TAO, WEICHANG, CN; BARTHOLOMAEUS, PETER, CN

IN CHU, GENGSHENG, CN; DENG, SHUIPING, CN; ZHANG, YUQIN, CN; LIU, YE, US; TAO, WEICHANG, CN; BARTHOLOMAEUS, PETER, CN

AB A system and method for manufacturing a honeycomb body is provided. Said system comprising: a forming mold (1) with a plurality of sub-molds, which are movable so that they can be opened and closed; a tightening mold (6) for tightening said forming mold (1); rolling pin(s) (2), which can be inserted into and pulled out of the inner volume of said forming mold (1) and can rotate around a rotation axis; wherein said tightening mold (6) has a shape that cooperates with the shape of said forming mold (1), so that an action of said tightening mold (6) causes tightening of said forming mold (1).



TI **EXHAUST-GAS TURBOCHARGER HAVING A WASTE-GATE VALVE**

PI **WO 2013064223 A2** 10.05. 2013

AI 2012004449 24.10.2012

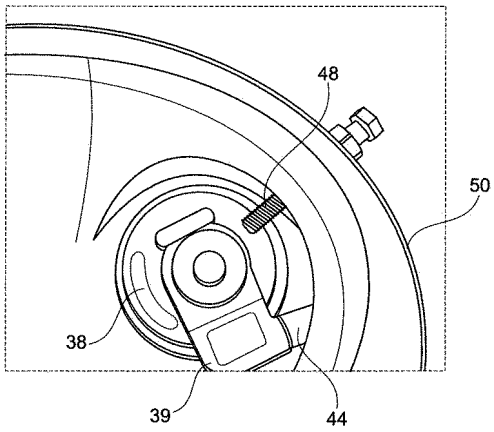
PRI DE 20111031 102011117339.4

IC **F02B037/18**

PA BMW AG, DE; BORG WARNER INC., US

IN NAWRATH, IVO, DE; SKOBERLA, ERICH, DE; SCHITTLER, WILHELM-ENGELBERT, DE; LINGENAUBER, ROBERT, DE; STEINGASS, PATRICK, DE; MAY, MICHAEL, DE

AB [WO 2013064223 A2] In an exhaust-gas turbocharger (12) comprising a waste-gate valve (28) which has a valve element (38) which can be adjusted between a closed position and an open position, and comprising an actuator (42) which is coupled to the valve element (38) via at least one actuating element (44), a stop (48) is provided for the actuating element (44) and/or the valve element (38).



TI **EXHAUST-GAS TREATMENT DEVICE**

PI **WO 2013064373 A1** 10.05. 2013

AI 2012070544 17.10.2012

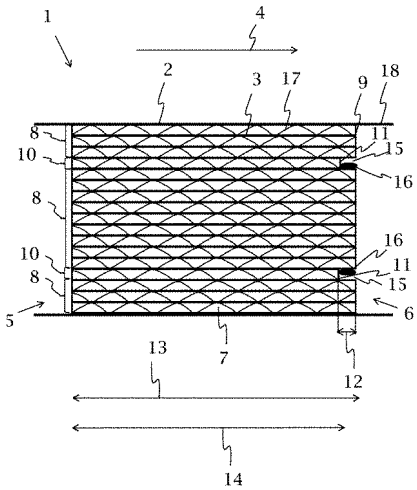
PRI DE 20111104 102011117624.5

IC **F01N003/28** F01N003/022 F01N003/027 F01N003/20

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE

IN HIRTH, PETER, DE; HODGSON, JAN, DE; BAUER, PETER, DE

AB [WO 2013064373 A1] The present invention relates to an exhaust-gas treatment device (1) with a honeycomb element (2), through which an exhaust gas can flow, and which honeycomb element (2) is wound and/or stacked with at least partially structured sheet-metal layers (3, 17) in such a way that channels (7) are formed, through which an exhaust gas can flow in the axial direction (4) from an inlet side (5) to an outlet side (6). A first part (8) of the sheet-metal layers (3, 17) ends flush at a first end surface (9) which is assigned to the inlet side (5) and/or the outlet side (6), and a second part (10) of the sheet-metal layers ends at a second end surface (11) which is likewise assigned to ...



TI **CONTROLLER STRUCTURE**

PI **WO 2013064541 A1** 10.05. 2013

AI 2012071570 31.10.2012

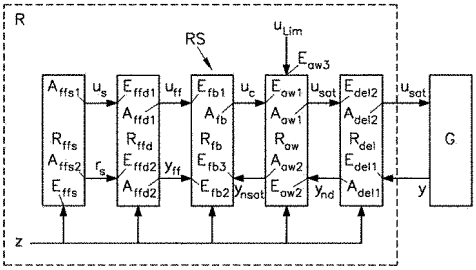
PRI AT 20111103 A1621/2011 03.11.2011

IC **F02D041/14**

PA AVL LIST GMBH, AT

IN STOLZ, MICHAEL, AT

AB The invention relates to a controller structure (RS), in particular for an engine controller for vehicles, comprising functional units designed as a modular system, wherein several functional units can be combined into a unit by means of interfaces. In order to improve the serviceability, testability, and ability to be parameterized, the controller structure (RS) comprises as functional units at least one static pilot control module (Rffs) and at least one module from the group comprising a dynamic pilot control module (Rffd), feedback control module (Rfb), anti-windup module (Raw), and dead-time compensation module (Rdel).



TI **METHOD OF TESTING ENDURANCE OF AN ELEMENT OF AN EXHAUST LINE COMPRISING A MEANS FOR INTRODUCING A SOLUTION OF UREA**

PI **WO 2013064769 A1** 10.05. 2013

AI 2012052440 24.10.2012

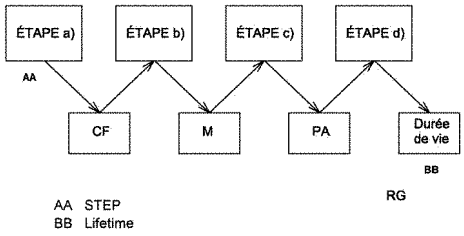
PRI FR 20111104 1160009 04.11.2011

IC **G01M013/00** F01N003/20 F01N011/00 G01M015/04 G01M099/00

PA PEUGEOT CITROEN AUTOMOBILES SA, FR

IN CHAPEL, JULIEN, FR; HACKSPILLE, CHRISTOPHE, FR; PRADERE, XAVIER, FR

AB The invention relates to a method of testing endurance of an element of an exhaust line of a combustion engine (1), the line comprising upstream of the element a means for introducing a solution of urea (4) for the selective catalytic reduction of nitrogen oxides, comprising the following successive steps: step a): determination of operating conditions (CF), especially the thermal and mechanical stresses undergone by the element and representative of a given application of the engine; step b): test bed measurement of the bulk fouling (M) of the element in the course of a predefined cycle, by reproducing from among the operating conditions (CF) those which have a significant effect on the fo ...



TI **CATALYZED FILTER FOR TREATING EXHAUST GAS**

PI **WO 2013064887 A2** 10.05. 2013

AI 2012002220 02.11.2012

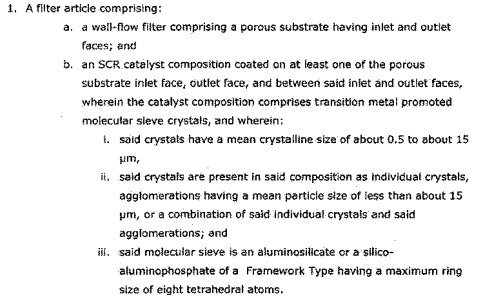
PRI US 20111102 61/554,529; US 20120119 13/353,842

IC **B01J029/76**

PA JOHNSON MATTHEY PUBLIC LIMITED COMPANY, GB

IN PHILLIPS, PAUL RICHARD, GB; CHANDLER, GUY RICHARD, GB; FLANAGAN, KEITH ANTHONY, GB; GREEN, ALEXANDER NICHOLAS MICHAEL, GB

AB Provided is a wall-flow filter coated with an SCR catalyst composition, wherein the catalyst composition contains transition metal promoted molecular sieve crystals, and wherein (i) the crystals have a mean crystalline size of about 0.5 pm to about 15 pm, (ii) the crystals are present in said composition as individual crystals, agglomerations having a mean particle size of less than about 15 pm, or a combination of said individual crystals and said agglomerations; and (iii) said molecular sieve is an aluminosilicate or a silico-aluminophosphate of a Framework Type having a maximum ring size of eight tetrahedral atoms.



1. A filter article comprising:
   a. a wall-flow filter comprising a porous substrate having inlet and outlet faces; and
   b. an SCR catalyst composition coated on at least one of the porous substrate inlet face, outlet face, and between said inlet and outlet faces, wherein the catalyst composition comprises transition metal promoted molecular sieve crystals, and wherein:
      i. said crystals have a mean crystalline size of about 0.5 to about 15 µm,
      ii. said crystals are present in said composition as individual crystals, agglomerations having a mean particle size of less than about 15 µm, or a combination of said individual crystals and said agglomerations; and
      iii. said molecular sieve is an aluminosilicate or a silico-aluminophosphate of a Framework Type having a maximum ring size of eight tetrahedral atoms.

TI **CONTROL DEVICE FOR INTERNAL-COMBUSTION ENGINE**

PI **WO 2013065149 A1** 10.05. 2013

AI 2011075317 02.11.2011

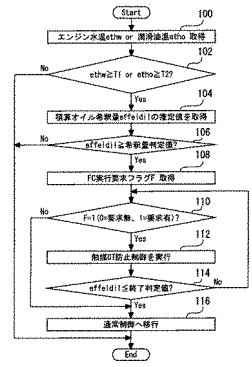
PRI WO 20111102 2011075317 02.11.2011

IC **F02D045/00**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; TSUKAGOSHI, TAKAHIRO, JP; MORITA, KOUJI, JP; FUJIWARA, TAKAHIKO, JP; MATSUDA, KAZUHISA, JP

IN TSUKAGOSHI, TAKAHIRO, JP; MORITA, KOUJI, JP; FUJIWARA, TAKAHIKO, JP; MATSUDA, KAZUHISA, JP

AB The objective of the present invention is, in an internal-combustion engine using alcohol fuel, to prevent blow-by gas from reaching a catalyst when the fuel is cut, and to control the increase in the oil dilution amount due to use of alcohol fuel, while protecting the catalyst. An engine (10) is provided with a PCV mechanism (50) for injecting blow-by gas in a crankcase (18) into an intake system. When fuel is cut with the PCV mechanism (50) in operational condition, the opening of a throttle valve (26) during fuel cut is set on the basis of the dilution level of the oil in the lubricant. It is therefore possible to adjust the throttle opening during fuel cut according to the amount of blo ...



100 Obtain engine water temperature ethw or lubricant temperature etho
102 ethw ≥ T1 or etho ≥ T2?
104 Obtain cumulative value for estimated oil dilution amount effeldil
106 effeldil ≥ dilution amount assessed value?
108 Obtain FC execution request flag F
110 F=1 (0=No request, 1=Request)?
112 Execute catalyst OT stop control
114 effeldil ≤ ending assessed value?
116 Transition to normal control

TI **DEVICE FOR CONTROLLING ELECTRICALLY HEATED CATALYST**

PI **WO 2013065157 A1** 10.05. 2013

AI 2011075337 02.11.2011

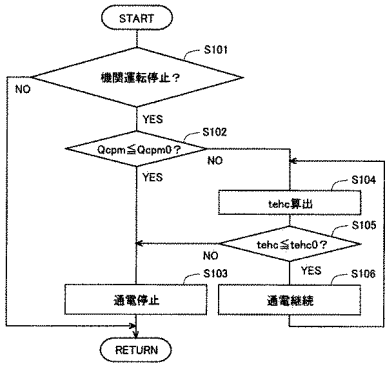
PRI WO 20111102 2011075337 02.11.2011

IC **F01N003/20**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; YOSHIOKA, MAMORU, JP

IN YOSHIOKA, MAMORU, JP

AB The purpose of the present invention is to suppress short-circuiting between a heating element and a case due to PM in an electrically heated catalyst. The electrically heated catalyst of the present invention is provided in an exhaust passage of an internal combustion engine in which the air-fuel ratio is controlled to approach a theoretical air-fuel ratio during operation, and has a heating element for generating heat when an electric current is conducted therethrough, a case for housing the heating element, and an insulating member provided between the heating element and the case. In the present invention, electric current is conducted to the heating element after operation of the inter ...



S101 ENGINE OPERATION STOPPED?
S103 STOP CURRENT FLOW
S104 CALCULATE tehc
S106 CONTINUE CURRENT FLOW

TI **EXHAUST PIPE STRUCTURE FOR HYBRID CAR**

PI **WO 2013065798 A1** 10.05. 2013

AI 2012078373 01.11.2012

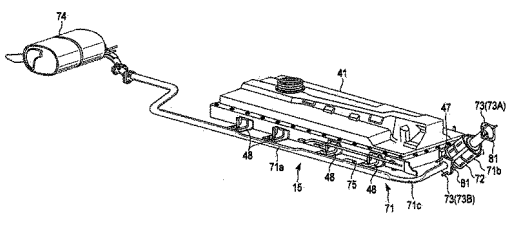
PRI JP 20111104 2011242623 04.11.2011

IC **B60K013/04** B60K001/04 F01N001/00 F01N013/08

PA MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAISHA, JP

IN TOHARA, KENTA, JP; TANAKA, TOSHIMASA, JP; TANAKA, KENTARO, JP; NOGUCHI, YASUHIKO, JP

AB An exhaust pipe structure (15) for a hybrid car (1) having an internal combustion engine (10), a drive cell pack (41) disposed under the floor of a vehicle body (17), and an exhaust pipe (71) connected to the internal combustion engine (10); the exhaust pipe (71) comprising a front-rear extending part (71a) fixed to the hybrid car (1) and extending in the front-rear direction of the hybrid car (1), a catalyst part (71b) extending from the internal combustion engine (10), and a connecting part (73) for connecting the front-rear extending part (71a) and the catalyst part (71b); the catalyst part (71b) being rotatably held on the front-rear extending part via the connecting part (73), and disp ...



TI **METHOD FOR REMOVING NITROGEN OXIDES**

PI **WO 2013065850 A1** 10.05. 2013

AI 2012078535 02.11.2012

PRI JP 20111104 2011242619 04.11.2011

IC **B01D053/56** B01D053/34

PA KABUSHIKI KAISHA KOBE SEIKO SHO(KOBE STEEL, LTD.), JP

IN YAMASHITA TAKESHI, JP; AKIYAMA KATSUYA, JP; MIZUTANI NORIAKI, JP

AB This method for removing nitrogen oxides brings exhaust gas containing oxygen and at least one nitrogen oxide selected from the group consisting of nitrogen monoxide and nitrogen dioxide into contact with ammonia without the presence of a catalyst, for at least 0.5 seconds under a temperature of no less than 900 Grad C, and breaks down the nitrogen oxide. According to this method, it is possible to remove nitrogen oxides in a highly efficient manner and significantly reduce the amount of unreacted ammonia.

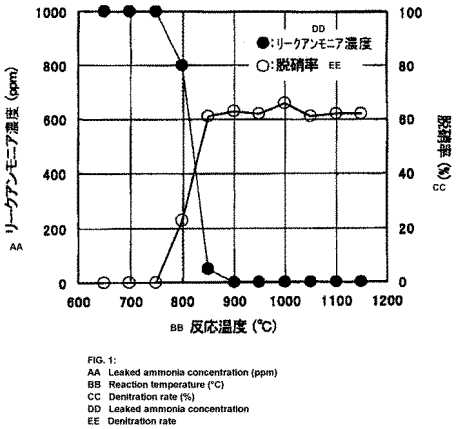


FIG. 1:
AA Leaked ammonia concentration (ppm)
BB Reaction temperature (°C)
CC Denitration rate (%)
DD Leaked ammonia concentration
EE Denitration rate

TI **SYSTEM AND METHOD FOR DIAGNOSING A TURBOCHARGER OF AN INTERNAL COMBUSTION ENGINE BASED ON THE LUBRICATING OIL PRESSURE SIGNAL**

PI **WO 2013066529 A1** 10.05. 2013

AI 2012057423 27.09.2012

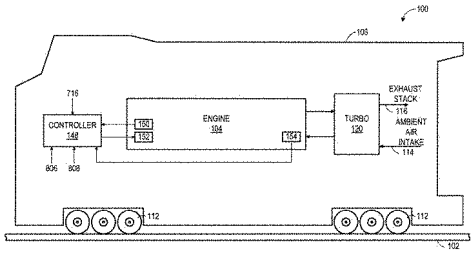
PRI US 20111031 61/553,896; US 20120605 13/488,530

IC **F02D041/00** F01M001/20 F02B039/14 F02D041/22 G01M015/09

PA GENERAL ELECTRIC COMPANY, US

IN FLYNN, PAUL, LLOYD, US; WORDEN, BRET, DWAYNE, US; MALONE, MATTHEW, JOHN, US; KARUNARATNE, MILAN, US

AB A method for monitoring the turbocharger based on the measured oil pressure value is disclosed. The method includes a step of receiving a signal indicative of a monitored pressure of a pressurized oil supply of a turbocharger (step 904); a step of determining a high frequency component of the signal (step 906); a step of determining whether the high frequency component of the signal meets one or more designated criteria (step 908); and if the high frequency component of the signal meets the one or more designated criteria, a step of generating a first control signal (step 916).



TI **AIR FILTER ASSEMBLY**

PI **WO 2013066657 A2** 10.05. 2013

AI 2012061342 22.10.2012

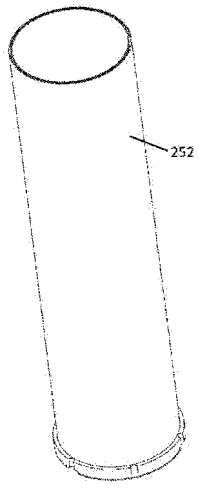
PRI US 20111031 61/553,407; US 20120420 61/636,187; US 20120928 61/707,164

IC **B01D046/24**

PA DONALDSON COMPANY, INC., US

IN KAWABE, YOTA, JP; ITO, KENJI, JP; VANAUDENHOVE, WILLIAM, BE

AB An air filter assembly having a primary filter element, a secondary filter element, and a housing with an outlet tube is disclosed. The primary filter element is operably installed within the housing and has an interior volume. The secondary filter element is operably installed within the primary filter element interior volume and has an interior volume defined by a first wall extending between a closed end cap and an opposite open end cap. The open end cap of the secondary filter element defines a sealing structure having a first portion extending into the secondary filter interior volume. The outlet tube is operably connected to the housing air outlet opening and includes an inset collar ...



TI **INTELLIGENT POST-TREATMENT AND REGENERATION CONTROL METHOD FOR ENGINEERING MACHINERY ENGINE**

PI **WO 2013067802 A1** 16.05. 2013

AI 2012074379 19.04.2012

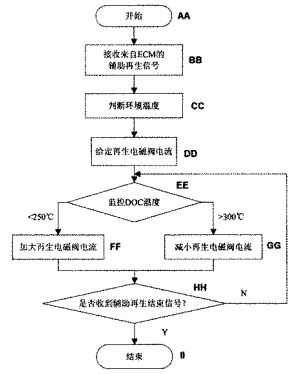
PRI CN 20111108 201110349905.6

IC **F01N009/00** F01N003/023

PA HUNAN SANY INTELLIGENT CONTROL EQUIPMENT CO., LTD, CN; SHANGHAI SANY HEAVY MACHINERY LIMITED, CN; DAI, QINGHUA, CN; CAO, DONGHUI, CN; SHI, ...

IN DAI, QINGHUA, CN; CAO, DONGHUI, CN; SHI, XIANGXING, CN

AB An intelligent post-treatment and regeneration control method for an engineering machinery engine, comprising an automatically regenerated auxiliary load loading control method and a manually regenerated auxiliary load loading control method; the automatic regeneration auxiliary load loading control method comprises the following steps: when the accumulation of the particles in a diesel particulate trap exceeds a specified standard and the exhaust temperature of the engine is higher than the regeneration required temperature, an engine controller transmits an auxiliary regeneration packet; after receiving the packet, a main controller determines the external environment temperature; the mai ...



AA START
BB RECEIVING AN AUXILIARY REGENERATION SIGNAL FROM AN ECM
CC DETERMINING THE ENVIRONMENT TEMPERATURE
DD SUPPLYING CURRENT FOR A REGENERATION ELECTROMAGNETIC VALVE
EE MONITORING DOC TEMPERATURE
FF INCREASING THE CURRENT FOR THE REGENERATION ELECTROMAGNETIC VALVE
GG REDUCING THE CURRENT FOR THE REGENERATION ELECTROMAGNETIC VALVE
HH IS AN AUXILIARY REGENERATION TERMINATION SIGNAL RECEIVED?
II END

TI **HEAT SHIELD ELEMENT HAVING AN ELASTIC END REGION**

PI **WO 2013068133 A1** 16.05. 2013

AI 2012062435 27.06.2012

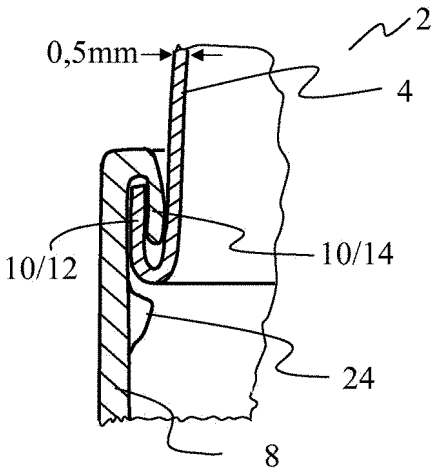
PRI DE 20111110 102011086080.0

IC **B60R013/08** F01N013/14 F02B077/11 F16L059/02

PA FEDERAL-MOGUL SEALING SYSTEMS GMBH, DE; KLINNER, MANFRED, DE; GADOMSKI, BARTOSCH, DE

IN KLINNER, MANFRED, DE; GADOMSKI, BARTOSCH, DE

AB [WO 2013068133 A1] The invention relates to a heat shield element (2) comprising a heat shield plate (4) made of at least one layer (6) of sheet metal, further comprising at least one border element (8) that is made of an elastic material and that is connected on the border of the heat shield element (4) to the latter.



TI **METHOD FOR ASCERTAINING THE NO2 CONTENT GENERATED IN A CATALYTIC EXHAUST GAS AFTER-TREATMENT DEVICE**

PI **WO 2013068143 A1** 16.05. 2013

AI 2012066799 29.08.2012

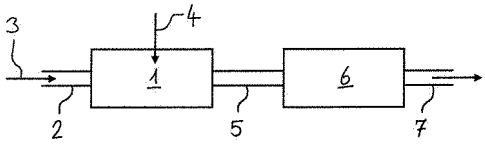
PRI DE 20111109 102011055166.2

IC **F01N011/00** F01N003/10 F02D041/02 F02D041/14

PA FEV GMBH, DE; SEVERIN, CHRISTOPHER, DE; WIX, KARSTEN, DE; GATZWEILER, MARCO, DE; NETTERSCHEID, MARKUS, DE

IN SEVERIN, CHRISTOPHER, DE; WIX, KARSTEN, DE; GATZWEILER, MARCO, DE; NETTERSCHEID, MARKUS, DE

AB [WO 2013068143 A1] The invention relates to a method for ascertaining the NO2 concentration downstream of a catalytic exhaust gas after-treatment device (6) in an exhaust gas after-treatment system of an internal combustion engine (1) by means of an NO2 formation model which takes into consideration operating parameters of the exhaust gas after-treatment system and an aging parameter of the catalytic exhaust gas after-treatment device (6). The HC/CO conversion behavior of the catalytic exhaust gas after-treatment device (6) is ascertained in order to determine the aging parameter, and the NO2 conversion behavior is deduced therefrom.



TI **METHOD FOR OPERATING A METERING DEVICE**

PI **WO 2013068201 A1** 16.05. 2013

AI 2012070357 15.10.2012

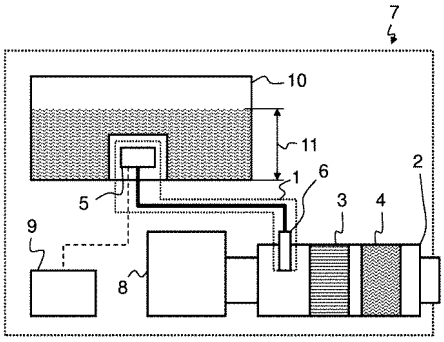
PRI DE 20111111 102011118214.8

IC **F01N003/20**

PA EMITEC GESELLSCHAFT FUER EMISSIONSTECHNOLOGIE MBH, DE; BRUECK, ROLF, DE; HODGSON, JAN, DE; BAUER, PETER, DE

IN BRUECK, ROLF, DE; HODGSON, JAN, DE; BAUER, PETER, DE

AB [WO 2013068201 A1] The invention relates to a method for operating a metering device (1) for adding an additive into a waste gas treatment device (2). In a step a) of said method, a metered quantity of the additive required by the waste gas treatment device (2) is determined. Then in a step b), a mode of operation for the metering device (1) is determined, wherein at least a step b.1) and a step b.2) are performed. In step b.1), at least one operating parameter of at least one component of the metering device (1) is provided, which is decisive for an aging of the metering device (1). In step b.2), a mode of operation for the metering device (1) is defined based on the operating parameter fr ...



TI **DOSING MODULE**

PI **WO 2013068288 A1** 16.05. 2013

AI 2012071546 31.10.2012

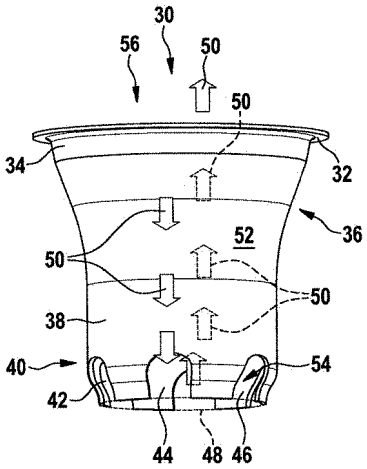
PRI DE 20111109 102011086017.7

IC **F01N003/20** F02M053/04

PA ROBERT BOSCH GMBH, DE; KIONTKE, MARTIN, DE; POHL, STEPHAN, DE; KNITTEL, ACHIM, DE

IN KIONTKE, MARTIN, DE; POHL, STEPHAN, DE; KNITTEL, ACHIM, DE

AB [WO 2013068288 A1] The invention relates to a dosing module (10) for injecting a reduction agent, in particular a urea-water solution, into an exhaust pipe of an internal combustion engine, in particular of a self-igniting internal combustion engine, to reduce nitrogen oxides in the exhaust stream, wherein the dosing module has a main cooling element (12) through which a cooling liquid flows, in particular for cooling an injection valve (64) for the reduction agent. According to the invention, an additional cooling element (14), through which the cooling liquid likewise flows, in particular for cooling in the region of an electrical plug connection (22) and of an electromagnet (80) for actu ...



TI **DEVICE FOR CONVERTING THERMAL ENERGY INTO ELECTRICAL ENERGY**

PI **WO 2013068291 A1** 16.05. 2013

AI 2012071580 31.10.2012

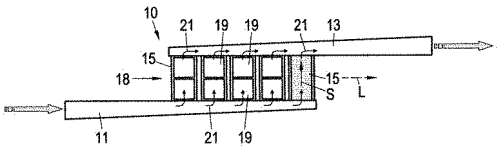
PRI DE 20111111 102011118375.6

IC **F01N005/02**

PA FRIEDRICH BOYSEN GMBH & CO. KG, DE

IN GAUSS, ROLAND, DE; STOCKINGER, KARL, DE

AB [WO 2013068291 A1] The invention relates to a device for converting thermal energy into electrical energy, comprising a thermoelectric generator (18), which has an active surface that is provided for contact with a heat source, and a heating duct arrangement (10), through which a heat transfer fluid can flow and which is configured to guide the heat transfer fluid in a flow direction (S) along the active surface of the thermoelectric generator. The thermoelectric generator has a longitudinal direction (L) due to the overall dimensions of the generator. The flow direction (S) runs transversely to the longitudinal direction (L).



TI **METHOD AND APPARATUS FOR CONTROLLING AN INTERNAL COMBUSTION ENGINE WHEN A MISFIRE IS DETECTED**

PI **WO 2013068356 A1** 16.05. 2013

AI 2012071944 06.11.2012

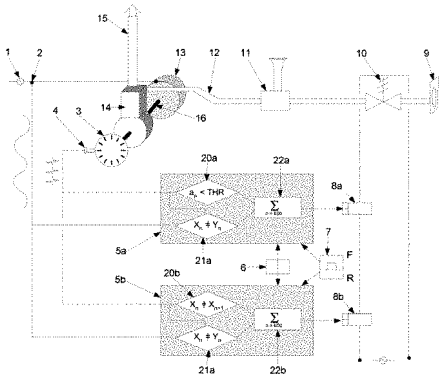
PRI GB 20111107 1119239.0 07.11.2011

IC **F02D041/14** F02D041/22

PA EC POWER A/S, DK

IN FOERSTER, JESPER, DK; LUEDERS, LARS, DK; ABILDGAARD, SOEREN STIG, DK; LOSE, STEVEN, DK; HO, KIM TAE, DK

AB An engine-generator comprises: a generator 13, an internal combustion engine 14 coupled to the generator 13 such that operation of the internal combustion engine 14 will generate electricity via the generator 13, and a control system incorporating a misfire detection system 5, the misfire detection system 5 being arranged to monitor engine rotation speed in order to detect a misfire event during operation of the engine 1; wherein in response to an indication of the misfire event the control system initiates a safety mode of the engine-generator.



TI **METHOD AND SYSTEM FOR AN EXHAUST GAS PARTICULATE FILTER**

PI **WO 2013068370 A1** 16.05. 2013

AI 2012071969 07.11.2012

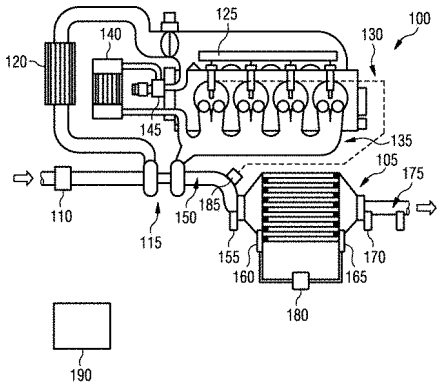
PRI DE 20111110 102011086118.1

IC **F01N011/00** F01N009/00

PA CONTINENTAL AUTOMOTIVE GMBH, DE

IN ANTE, JOHANNES, DE; HERRMANN, MARKUS, DE; REITMEIER, WILLIBALD, DE; SCHAEDLICH, DENNY, DE

AB [WO 2013068370 A1] A system for determining a regeneration phase of an exhaust gas particulate filter (105) for an internal combustion engine (100) comprises a temperature sensor (155) for detecting an elevated exhaust gas temperature, a sensor (170) for detecting the particulate content in the exhaust gas stream exiting from the exhaust gas particulate filter, and a processing device (190) for determining the regeneration phase on the basis of the detected values. A method for determining a regeneration phase of an exhaust gas particulate filter for an internal combustion engine comprises steps of: detecting an elevated exhaust gas temperature (205), sampling a signal from a sensor (170) f ...



TI **ARRANGEMENT FOR REDUCING FUEL MATERIAL SLIP TO THE ATMOSPHERE IN AN INTERNAL COMBUSTION PISTON ENGINE, METHOD OF REDUCING FUEL MATERIAL SLIP TO THE ATMOSPHERE IN AN INTERNAL COMBUSTION PISTON ENGINE AND CYLINDER HEAD FOR AN INTERNAL COMBUSTION PISTON ENGINE**

PI **WO 2013068639 A2** 16.05. 2013

AI 2012051075 05.11.2012

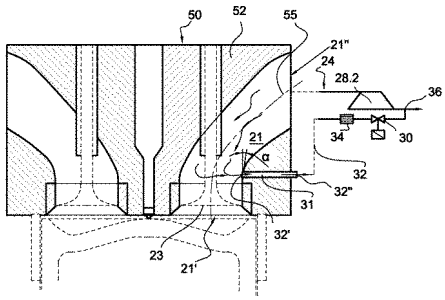
PRI FI 20111108 20116101 08.11.2011

IC **F02B043/00** F01N003/10 F01N003/20 F01N013/10 F02B037/02 F02B037/18

PA WAERTSILAE FINLAND OY, FI

IN HAEGGLUND, THOMAS, FI; LINDE, EIRIK, FI; WIDESKOG, MIKAEL, FI

AB The invention relates to an arrangement for reducing fuel material slip to the atmosphere in a an internal combustion piston engine with at least two cylinders (14) and at least one turbo charger unit (28), the arrangement comprising an exhaust gas system (24) arranged to connect a combustion chamber of each cylinder of the engine controllably by means of an exhaust valve or valves (23) to the atmosphere via a turbine section (28.2) of the at least one turbo charger unit, fuel processing unit (34) for oxidation of fuel material in the exhaust gas of the engine. In the arrangement there is a flow path (32) provided opening into the exhaust gas system (24) in the vicinity of the exhaust valve ...



TI **ARRANGEMENT FOR REDUCING FUEL MATERIAL SLIP TO THE ATMOSPHERE IN AN INTERNAL COMBUSTION PISTON ENGINE AND METHOD OF UPGRADING AN INTERNAL COMBUSTION PISTON ENGINE**

PI **WO 2013068640 A1** 16.05. 2013

AI 2012051076 05.11.2012

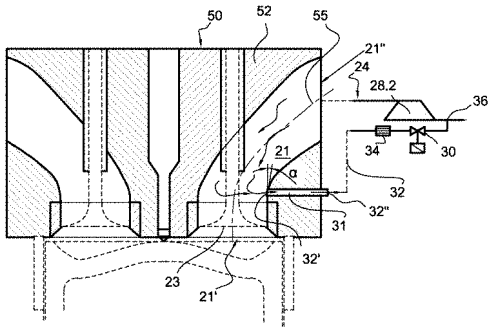
PRI FI 20111108 20116103 08.11.2011

IC **F02B037/18** F01N003/10 F01N003/20 F01N013/10 F02B037/02 F02B043/00

PA WAERTSILAE FINLAND OY, FI

IN HAEGGLUND, THOMAS, FI; LINDE, EIRIK, FI; WIDESKOG, MIKAEL, FI

AB Invention relates to an arrangement for reducing fuel material slip to the atmosphere in an internal combustion piston engine with at least two cylinders (14) and at least one turbo charger unit (28), and an exhaust gas system (24) arranged to connect a combustion chamber of each cylinder of the engine controllably by means of an exhaust valve or valves (23) to the atmosphere via a turbine section (28.2) of the at least one turbo charger unit, the arrangement comprising a fuel processing unit (34) for oxidation of fuel material in the exhaust gas of the engine the arrangement comprises a body (102) through which a conduit (32) is arranged to extend into the vicinity of the exhaust valve at ...



TI **METHOD AND SYSTEM FOR CONTROLLING THE ACTUATOR OF A SMALL-OPENING AND REGULATED-DELIVERY VALVE**

PI **WO 2013068661 A1** 16.05. 2013

AI 2012052072 17.09.2012

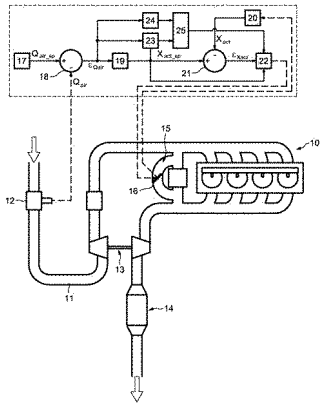
PRI FR 20111107 1160096 07.11.2011

IC **F02D041/00** F02D041/14 F02D041/18

PA RENAULT S.A.S., FR; PETILLON, YOHANN, FR; LOMBARDIN, JACQUES-OLIVIER, FR

IN PETILLON, YOHANN, FR; LOMBARDIN, JACQUES-OLIVIER, FR

AB Method and system for controlling the actuator of a small-opening and regulated-delivery valve. System for controlling the actuator of a partial exhaust gas recirculation valve (16) in an internal combustion engine (10) for a motor vehicle equipped with at least one means (12) of measuring the flowrate of air admitted and with at least one circuit (15) for partial exhaust gas recirculation and controlled by a means (17) of controlling the admitted gases which is able to determine an admitted-air setpoint value, . the control system comprising a means of comparing the flowrate measurement against a flowrate setpoint value (19) able to emit a setpoint value for the position of the actuator wh ...



TI **METHOD FOR REGENERATING A PARTICLE FILTER FOR HYBRID MOTOR VEHICLES**

PI **WO 2013068668 A1** 16.05. 2013

AI 2012052445 25.10.2012

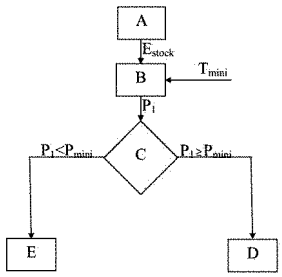
PRI FR 20111107 1160062 07.11.2011

IC **B60W030/192** B60W010/06 B60W020/00 F01N003/023

PA PEUGEOT CITROEN AUTOMOBILES SA, FR

IN COLIGNON, CHRISTOPHE, FR

AB The invention relates to a method for regenerating a particle filter, said particle filter being found in a gas exhaust circuit in relation to a combustion engine installed in a hybrid motor vehicle, according to said method, if regeneration is underway, the input temperature of the particle filter is measured continuously and the power train coordinator managing the traction modes of the vehicle will inhibit a first instance of stopping of the combustion engine at least if the measured temperature is lower than the first set point temperature (Tfirst stop), and if a first stop has not been inhibited, the power train coordinator will authorise the stopping of the heat engine as long as the ...



TI **STORAGE CARTRIDGE FOR A GASEOUS REDUCER FOR THE SELECTIVE CATALYTIC REDUCTION OF NITROGEN OXIDES**

PI **WO 2013068669 A1** 16.05. 2013

AI 2012052463 26.10.2012

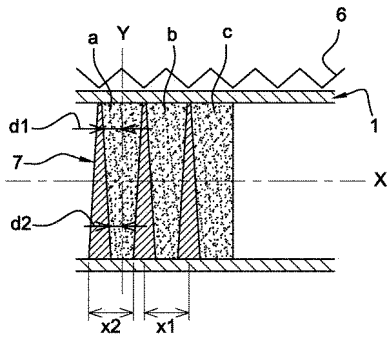
PRI FR 20111110 1160251 10.11.2011

IC **F01N003/20** C01C001/02 F17C011/00

PA PEUGEOT CITROEN AUTOMOBILES SA, FR

IN ARTAULT, MATHIEU, FR; GRISE, CLEMENT, FR

AB The invention relates to a cartridge (1) for storing a gaseous reducer for the selective catalytic reduction of nitrogen oxides, said cartridge comprising: - a tank containing a solid storage material of said gaseous reducer, - at least one means of heating (6) for the storage material and the surrounding area of said material, - a plurality of heat conductors (7) within the storage material and in direct or indirect contact with said means of heating and diffusing the heat within said storage material. The heat conductors are arranged within the storage material in mats that delimit, in combination with the wall 15 of the tank, layers (a, b, c) of storage material, the thickness thereof va ...



TI **EXHAUST CLEANING DEVICE FOR INTERNAL COMBUSTION ENGINE**

PI **WO 2013069085 A1** 16.05. 2013

AI 2011075618 07.11.2011

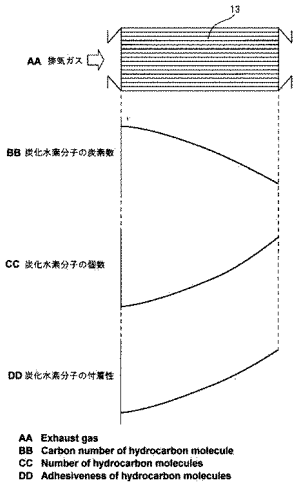
PRI WO 20111107 2011075618 07.11.2011

IC **F01N003/08** F01N003/36 F02D041/04

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; BISAIJI, YUKI, JP; YOSHIDA, KOHEI, JP; INOUE, MIKIO, JP

IN BISAIJI, YUKI, JP; YOSHIDA, KOHEI, JP; INOUE, MIKIO, JP

AB In the present invention, a hydrocarbon supply valve (15) and an exhaust cleaning catalyst (13) are disposed in an engine exhaust passage in an internal combustion engine. The amount of hydrocarbon injected from the hydrocarbon supply valve (15) is controlled so that the amplitude of the change in concentration of hydrocarbon flowing into the exhaust cleaning catalyst (13) during operation of the engine is within a predefined range of amplitudes, while the period of injection of hydrocarbons from the hydrocarbon supply valve (15) is controlled so that the concentration of hydrocarbon flowing into the exhaust cleaning catalyst (13) oscillates at a cycle length within a predefined range of cy ...



TI **EXHAUST PURIFICAION DEVICE FOR INTERNAL COMBUSTION ENGINE**

PI **WO 2013069115 A1** 16.05. 2013

AI 2011075849 09.11.2011

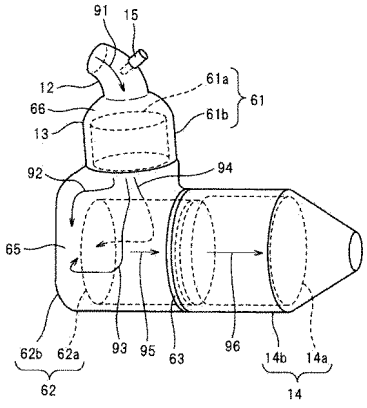
PRI WO 20111109 2011075849 09.11.2011

IC **F01N003/08** F01N003/28 F01N003/36

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; UMEMOTO, KAZUHIRO, JP; INOUE, MIKIO, JP

IN UMEMOTO, KAZUHIRO, JP; INOUE, MIKIO, JP

AB An exhaust purification device for an internal combustion engine is equipped with an exhaust purification catalyst that includes an upstream catalyst and a downstream catalyst, and that purifies NOx. The upstream catalyst has oxidation capability, and the downstream catalyst has catalytic particles of a noble metal, and a basic exhaust circulation surface portion. The concentration of hydrocarbons flowing into the exhaust purification catalyst is oscillated with an amplitude within a predetermined range and a period within a predetermined range, and the NOx is reduced. The upstream catalyst includes an upstream base body and an upstream container, and the downstream catalyst includes a down ...



TI **INTERNAL COMBUSTION ENGINE**

PI **WO 2013069139 A1** 16.05. 2013

AI 2011075988 10.11.2011

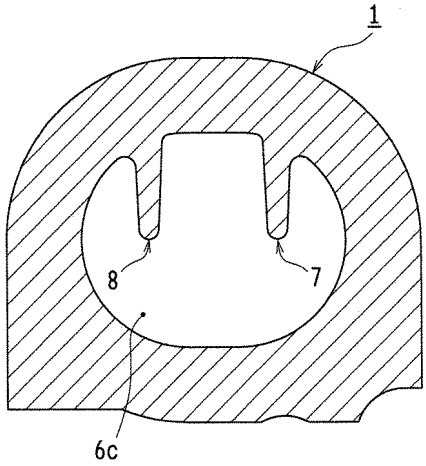
PRI WO 20111110 2011075988 10.11.2011

IC **F02F001/42** F01N003/02 F01N013/10

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; SODA NOBUHIKO, JP; HAMAGURI TOSHIAKI, JP; AKASE TAKATOSHI, JP

IN SODA NOBUHIKO, JP; HAMAGURI TOSHIAKI, JP; AKASE TAKATOSHI, JP

AB [Problem] To configure an internal combustion engine provided with an exhaust gas discharge port (6) for each cylinder (2), the internal combustion engine being configured so that the activation of a catalyst disposed in the exhaust gas discharge system can be promoted during low-speed operation of the engine and so that the overheating of the catalyst can be prevented or suppressed during high-speed operation of the engine. [Solution] The upstream sections (6a, 6b) of an exhaust gas discharge port (6) are exhaust gas conduits provided to each cylinder (2) so as to extend from the cylinder (2) in the direction tilted relative to the axis (Y) of the cylinder (2). The downstream section (6c) ...



TI **INTRA-CYLINDER PRESSURE SENSOR FAULT DIAGNOSTIC DEVICE AND INTRA-CYLINDER SENSOR SENSITIVITY CORRECTION DEVICE PROVIDED WITH SAME**

PI **WO 2013069157 A1** 16.05. 2013

AI 2011076087 11.11.2011

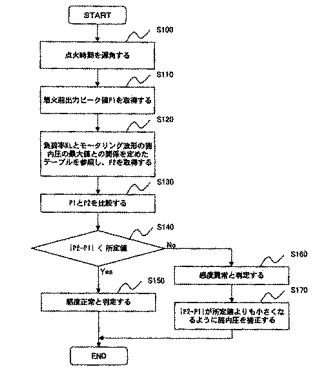
PRI WO 20111111 2011076087 11.11.2011

IC **F02D045/00**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, JP; SASAKI, KEISUKE, JP; URANO, SHIGEYUKI, JP

IN SASAKI, KEISUKE, JP; URANO, SHIGEYUKI, JP

AB An objective of the present invention is to provide an intra-cylinder pressure sensor fault diagnostic device with which an opportunity for fault diagnostics is ensured in a wide operating region, and it is possible to detect intra-cylinder pressure with a high signal-to-noise ratio and with good precision. Provided is an intra-cylinder pressure sensor (16) fault diagnostic device which outputs a value corresponding to intra-cylinder pressure of an internal combustion engine, in which an ignition timing is delayed such that a spark timing reaches dead center of compression, and intra-cylinder pressure peaks are respectively caused before and after sparking (S100). When the ignition timing i ...



S100 Delay ignition timing
S110 Acquire pre-spark output peak value (P1)
S120 Refer to table which delineates relation between load rate (KL) and motoring waveform intra-cylinder pressure maximum value, acquire P2
S130 Compare P1 and P2
S140 |P2-P1| < prescribed value
S150 Determine that sensitivity is normal
S160 Determine sensitivity fault
S170 Correct intra-cylinder pressure such that |P2-P1| is smaller than prescribed value

TI **START ACCELERATION ASSISTANCE DEVICE**

PI **WO 2013069674 A1** 16.05. 2013

AI 2012078820 07.11.2012

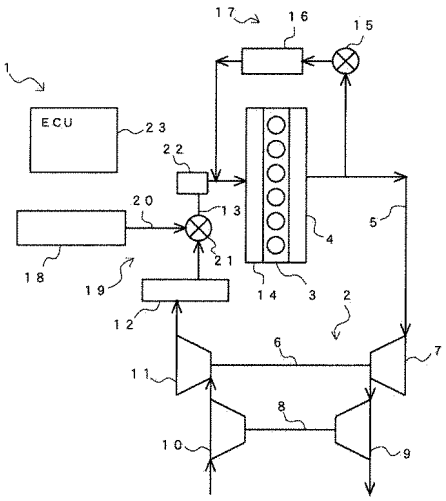
PRI JP 20111107 2011243350 07.11.2011

IC **F02B037/00** F02B037/04

PA ISUZU MOTORS LIMITED, JP

IN ITOU TOMOYUKI, JP

AB Provided is a device which has a simple structure, assists during starting and during acceleration, and can achieve sufficiently high boost voltages during start acceleration. Between a turbo charger (2) and an engine (3), a high pressure air introduction device (19) is provided which introduces into an intake manifold (14) high-pressure air from an air tank (18) for an airbrake, and during starting and acceleration, the high pressure air introduction device (19) assists the intake of air into the intake manifold (14).



TI **START ACCELERATION ASSISTANCE DEVICE**

PI **WO 2013069675 A1** 16.05. 2013

AI 2012078821 07.11.2012

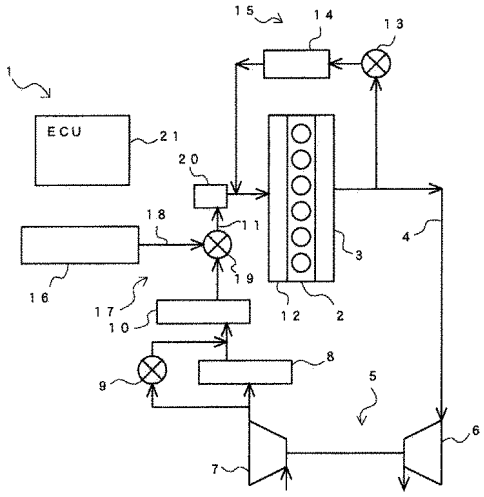
PRI JP 20111107 2011243351 07.11.2011

IC **F02B037/00** F02B037/04

PA ISUZU MOTORS LIMITED, JP

IN ITOU TOMOYUKI, JP

AB Provided is a start acceleration assistance device with which drops in torque may be prevented. An auxiliary charger (8), which is driven when the engine speed is low, is provided on the compressor output side of a turbocharger (5), and between the auxiliary charger (8) and the engine (2), a high pressure air introduction device (17) is provided which introduces, into an intake manifold (12), high-pressure air from an air tank (16) for an airbrake, and when the auxiliary charger has stopped during starting and acceleration, the high pressure air introduction device (17) assists the intake of air into the intake manifold (14).



TI **CATALYST FOR REMOVING NITROGEN OXIDE CONTAINED IN COMBUSTION EXHAUST GAS, AND METHOD FOR REMOVING NITROGEN OXIDE USING SAID CATALYST**

PI **WO 2013069713 A1** 16.05. 2013

AI 2012078911 08.11.2012

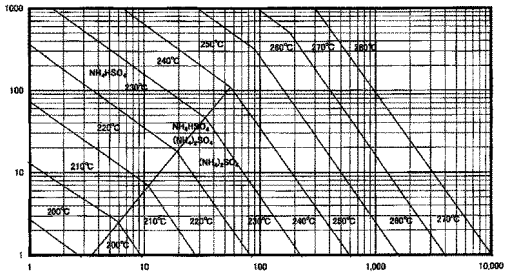
PRI JP 20111108 2011244504 08.11.2011

IC **B01J029/46** B01D053/94 B01J029/48 F01N003/10

PA HITACHI ZOSEN CORPORATION, JP

IN HIKAZUDANI, SUSUMU, JP; SHIMIZU, KANA, JP

AB The present invention provides a method by which a nitrogen oxide contained in an exhaust gas can be removed with high efficiency at a temperature around an ammonium sulfate precipitation temperature. A method for removing a nitrogen oxide contained in an exhaust gas, characterized by comprising bringing the exhaust gas into contact with a catalyst at a temperature ranging from 200 to 350 Grad C, wherein the catalyst is produced by the ion exchange of an MFI-type zeolite with at least one element selected from Fe, Co and Mn.



TI **MUFFLER FOR AUTOMOBILE**

PI **WO 2013069851 A1** 16.05. 2013

AI 2012001924 16.03.2012

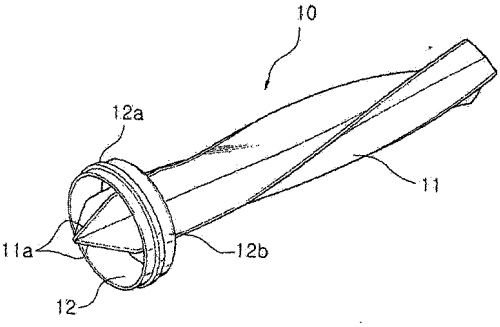
PRI KR 20111109 1020110116482; KR 20120223 1020120018527

IC **F01N001/12** F01N001/10 F01N001/16 F01N001/18

PA JUN B.L CO.,LTD, KR; IM, JUNBYONG

IN IM, JUNBYONG

AB The present invention pertains to a device for the pressure calibration of exhaust gas and torque output, wherein the fluctuation pressure of exhaust gas which is discharged via an exhaust device is calibrated for increasing the torque output of an engine while the change of exhaust pressure due to the difference of static pressure and negative pressure that is generated when pistons operate is controlled for increasing the running performance of an automobile, saving fuel, and promoting the discharge of exhaust gas. An induction member (10) of the above-mentioned present invention comprises: a spiral induction piece (11) made from a metal plate in the shape of a cross and connected to an e ...



TI **Engine exhaust device for motorcycle, with dividing element forming at least two exhaust gas channels, one of which is controlled by valve mechanism**

PI DE 10002593 B4 27.06. 2013

AI 10002593 21.01.2000

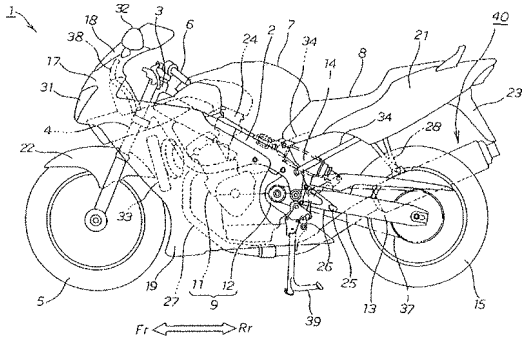
PRI JP 19990122 11014903 22.01.1999

IC **F01N001/16**

PA Honda Giken Kogyo K.K., Tokyo, JP

IN Sagara, Mikio, Wako, JP; Iwase, Noritoshi, Wako, JP; Yamamoto, Kazuo, Wako, JP; Kadota, Masakazu, Wako, JP; Koide, Hideo, Wako, JP; Nakashi ...

AB The engine exhaust gas device has a dividing element (77) to divide a connecting tube (63) on the output side of the silencer into at least two exhaust gas channels (75, 76). A valve mechanism (64) varies the channel surface of one of the exhaust gas channels. The one without the valve mechanism is used at low revs. and the other one at higher revs.



TI **Flap valve for exhaust system of motor vehicle, has flap held on one bearing point so that it can move in direction parallel to its plane and at right angles to axis of rotation**

PI DE 102004032974 B4 27.06. 2013

AI 102004032974 08.07.2004

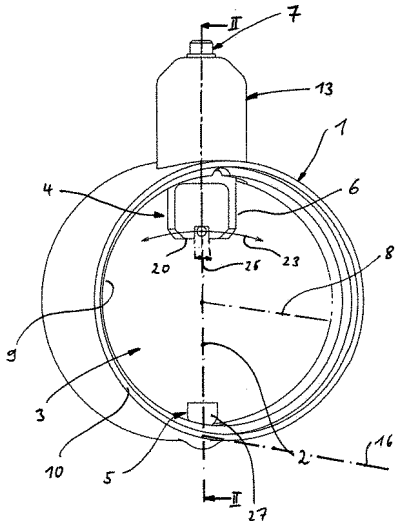
PRI DE 20040708 08.07.2004
102004032974

IC **F02D009/04** F02D009/10 F16K001/22

PA Faurecia Abgastechnik GmbH, 90765 Fuerth, DE

IN Rouaud, Yohann, 90765 Fuerth, DE; Hildebrand, Matthias, 90765 Fuerth, DE

AB The valve has a tube-section-like valve housing (1) with a valve flap (3) held by two diametrically opposing bearing points (4,5) defining an axis of rotation. The valve flap (3) is held on a first bearing point (4) so that it can move in a direction parallel to its pane and at right angles to the axis (2) of rotation.



TI **System for controlling the urea supply to SCR catalysts**

PI DE 102005059549 B4 20.06. 2013

AI 102005059549 13.12.2005

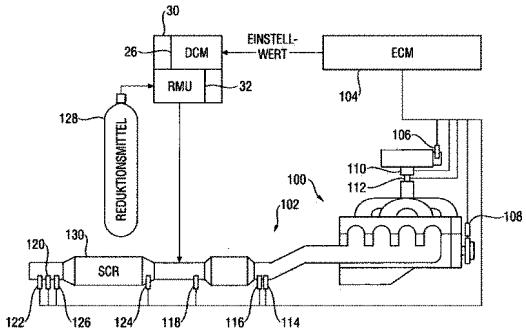
PRI US 20041220 11/017,363 20.12.2004

IC **F01N009/00**

PA General Motors Corp. (n.d.Ges.d. Staates Delaware), Detroit, US

IN Solbrig, Charles E., Ypsilanti, US

AB [US 7178328 B2] A reductant dosing control system, for use in a Selective Catalytic Reduction (SCR) system of a motor vehicle includes an input receiving a NOx feedback signal from an NOx sensor provided to the SCR system. A base dosing module calculates a required quantity of reductant to inject in front of a SCR catalyst of the SCR system based on the NOx feedback signal. The SCR catalyst has ammonia storage properties. An output signals a reductant metering mechanism to periodically or continuously inject excess reductant based on the required quantity of reductant.



TI **Method for Determining the Oxygen Storage Capacity**

PI **DE 102009039929 B4** 13.06. 2013

AI 102009039929 04.09.2009

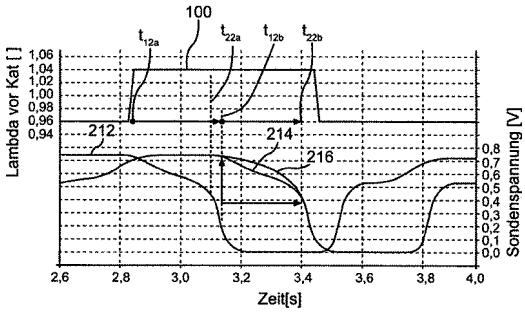
PRI DE 20090904 04.09.2009
102009039929

IC **F01N011/00**

PA AUDI AG, 85057 Ingolstadt, DE

IN Odendall, Bodo, 85101 Lenting, DE; Schneider, Martin, 85111 Adelschlag, DE

AB [US 8225649 B2] During the measurement of the oxygen storage capacity of an oxygen storage system, which is assigned to a catalytic converter, a switchover operation from lean to rich exhaust gas or vice versa is effected. The measurement signals of a lambda probe are recorded; and an integral calculation is carried out over a time interval on the basis of the measurement values. Whereas in the past the start of the time interval was the point in time of the switchover operation, the present invention provides that the start of the second time interval is determined on the basis of the measurement signals of the second lambda probe i.e., the point in time is preferably fixed at the time at ...



TI **METHOD OF CORRECTING NOx SENSOR AND NOx-SENSING DEVICE**

PI **DE 102010017360 B4** 13.06. 2013

AI 102010017360 14.06.2010

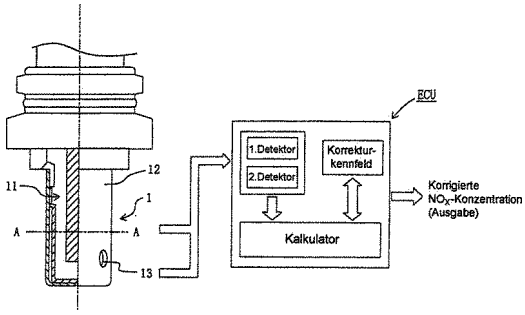
PRI JP 20090616 2009143285 16.06.2009

IC **F01N011/00** G01N027/407

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Nishijima, Hiroki, Toyota-shi, JP; Hirabayashi, Takeshi, Toyota-shi, JP; Kato, Fumitaka, Toyota-shi, JP

AB A method of correcting NOx sensor includes the steps of preparing a corrective map in advance, finding an existing proportion of NO or NO2 in a mixture of NOx in exhaust gases before coming into an NOx sensor, and correcting an NOx concentration that the NOx sensor detects actually. The corrective map records relationships between temperature physical quantities that are relevant to a temperature of the exhaust gases, oxygen-concentration physical quantities that are relevant to an oxygen concentration in the exhaust gases, and the existing proportion. The existing proportion is found with reference to the corrective map using the temperature physical quantities and oxygen-concentration phy ...



TI **EXHAUST GAS MUFFLER FOR INTERNAL COMBUSTION ENGINES AND DEEP DRAWING TOOL THEREFOR**

PI **DE 102010020826 B4** 06.06. 2013

AI 102010020826 18.05.2010

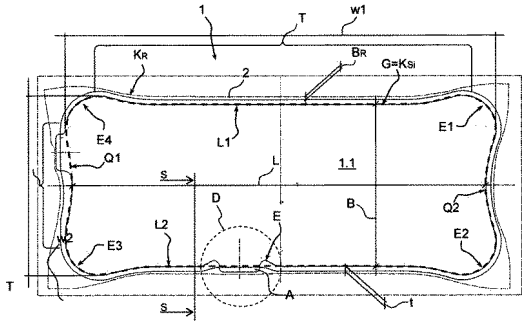
PRI DE 20100518 18.05.2010
102010020826

IC **F01N013/18** F01N001/02 F01N013/00 B21D022/20

PA Tenneco GmbH, 67480 Edenkoben, DE

IN Schroeer, Klaus, 76829 Landau, DE

AB [US 2013056298 A1] A shell muffler for an internal combustion engine that is formed of a first shell and at least one second shell, which shells are connected at their respective edge regions BS so as to form the shell muffler, each edge region BS having a box-like inner contour KSi, which has four corner regions (E1)-(E4) and a width (B) and a length (L), and an outer contour KSa, and each shell being produced from a shell blank R, which is formed by deforming a sheet metal strip using a deep drawing tool having the shape of the shell, the blank R, after deforming, having an edge region BR with an outer contour KR, said edge region being removed at least partially after the blank H has bee ...



TI **Component system set for manufacturing motor vehicles of different motorization variants, has turbo superchargers, air filter, oxidizing catalytic converter and diesel particulate filter mounted at loading and/or exhaust system**

PI DE 102010033719 B4 13.06. 2013

AI 102010033719 07.08.2010

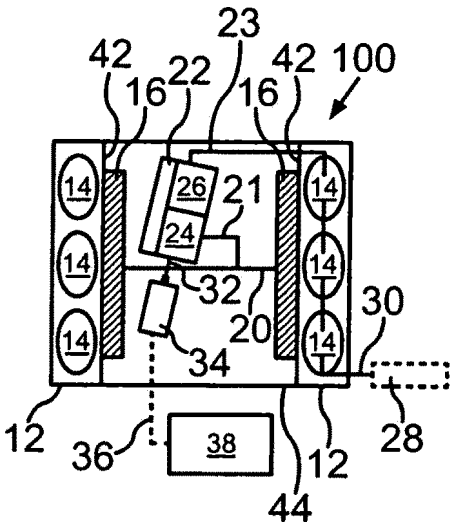
PRI DE 20100807 07.08.2010
102010033719

IC **F02B075/22** F02B039/00 F01N013/18 B62D065/10

PA AUDI AG, 85057 Ingolstadt, DE

IN Schloesser, Dirk, 74080 Heilbronn, DE

AB The set has self-ignition diesel engines (100) provided with two cylinder banks (12) in V-arrangement. The engines comprise mounting elements (21, 23) for assembly of two turbo superchargers (22), air filter (28), oxidizing catalytic converter (34) and a diesel particulate filter (38) that are mounted in an equal relative position to the engines at a loading and/or exhaust system. An exhaust gas manifold (16) of the engines is arranged on a side (42) of the cylinder banks. The turbo superchargers are arranged in a sequential manner.



TI **METHOD FOR MONITORING COMPONENTS OF A MOTOR VEHICLE AND MOTOR VEHICLE HAVING A CORRESPONDING MONITORING DEVICE**

PI DE 102011015396 B4 13.06. 2013

AI 102011015396 29.03.2011

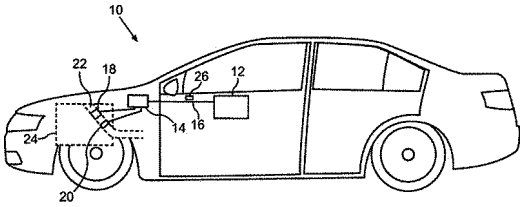
PRI DE 20110329 29.03.2011
102011015396

IC **F01N011/00**

PA AUDI AG, 85057 Ingolstadt, DE

IN Perbandt, Thomas, Dipl.-Ing., 86609 Donauwoerth, DE; Merl, Reinhard, 85057 Ingolstadt, DE

AB [WO 2012130403 A1] The invention relates to a method for monitoring an operational reliability of a first (20) and a second (18) component of a motor vehicle (10). The requirements for the monitoring are as follows: for a valid monitoring of the first component (20) a predetermined driving state of the motor vehicle (10) must exist; for a valid monitoring of the second component (18) the first component (20) must be functioning properly. According to the method according to the invention, upon impending travel, taking into account navigation data of a navigation assistance system (12), it is determined whether the prescribed driving state is likely to exist. The invention also relates to a ...



TI **SELECTIVE CATALYTIC REDUCTION (SCR) CATALYST DEPLETION CONTROL SYSTEMS AND METHODS**

PI DE 102011104231 B4 20.06. 2013

AI 102011104231 15.06.2011

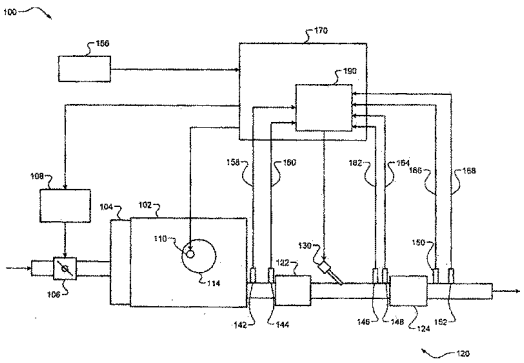
PRI US 20100618 12/818,651 18.06.2010

IC **F01N009/00** F01N003/10 F01N011/00

PA GM Global Technology Operations LLC (n. d. Gesetzen des Staates Delaware), Detroit, US

IN Darr, Rebecca J., Milford, US; Perrin, James M., Livonia, US; Jasinkiewicz, Paul, Northville, US; Mullins, Jason Daniel, Howell, US; Crawfo ...

AB [US 8429898 B2] A dosing control system for a vehicle includes an adaption triggering module, a dosing management module, and an adaption ending module. The adaptation triggering module triggers performance of an adaptation event when a first amount of nitrogen oxides (NOx) measured by a first NOx sensor located downstream of a selective catalytic reduction (SCR) catalyst is greater than a predicted value of the first amount of NOx. The dosing management module disables dosing agent injection during the adaptation event. The adaptation ending module selectively delays ending the adaptation event after a predetermined number of phases of the adaption event have been completed based on a comp ...



TI **Adaptive control of SCR urea injection to compensate errors**

PI **DE 102011105626 B4** 20.06. 2013

AI 102011105626 28.06.2011

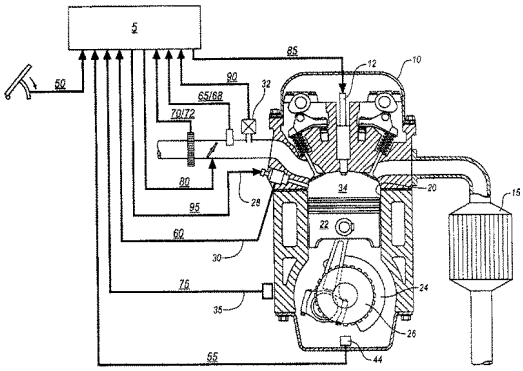
PRI US 20100701 12/828,511 01.07.2010

IC **F01N009/00** F01N003/10

PA GM Global Technology Operations LLC (n. d. Ges. d. Staates Delaware), Detroit, US

IN Wang, Yue-Yun, Troy, US; Gady, Kevin Andrew, Ypsilanti, US; Sun, Yu, Shelby Township, US

AB [US 8276373 B2] A method for controlling a selective catalytic reduction injection system having a storage tank, a pump, a delivery line, and an injection nozzle includes monitoring the selective catalytic reduction injection system, determining a selective catalytic reduction injector system effective area ratio, comparing the selective catalytic reduction injector system effective area ratio to a threshold, calculating a compensation factor upon surpassing the threshold, and modifying the commanded injected mass according to the calculated compensation factor.



TI **CONTROL METHOD AND APPARATUS FOR REGENERATING A PARTICULATE FILTER**

PI **DE 102011117808 B4** 13.06. 2013

AI 102011117808 07.11.2011

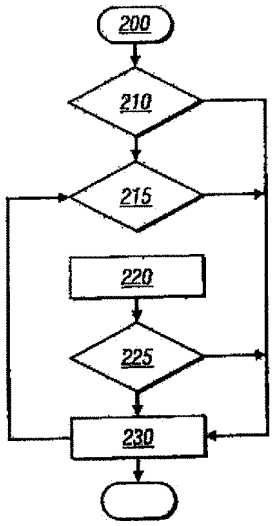
PRI US 20101111 12/944,287 11.11.2010

IC **F01N003/027**

PA GM Global Technology Operations LLC (n. d. Ges. d. Staates Delaware), Detroit, US

IN Gonze, Eugene V., Pinckney, US; Paratore jun., Michael J., Howell, US

AB [US 2012117946 A1] Control methods for regenerating particulate filter and an apparatus that includes an internal combustion engine, an exhaust gas conduit in fluid communication with and configured to receive exhaust gas from the internal combustion engine, and a particulate filter assembly in fluid communication with the exhaust gas conduit and configured to receive exhaust gas flowing therethrough. The particulate filter assembly includes a particulate filter to remove particulates from the exhaust gas, a heater device disposed near a front face of the particulate filter, to supply heat for regeneration of the particulate filter after shut-off of the internal combustion engine, and an ai ...



TI **Method for calibration of an engine controller and engine controller obtained using said method**

PI **DE 10335370 B4** 27.06. 2013

AI 10335370 30.07.2003

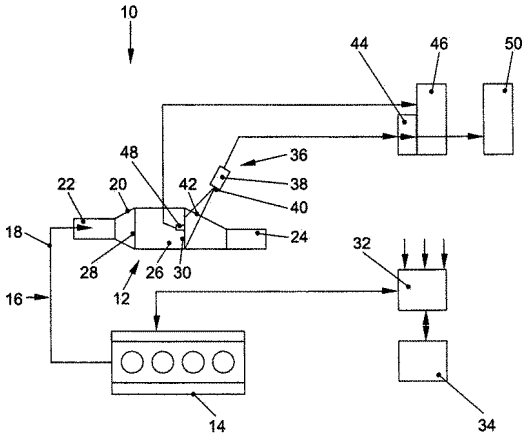
PRI DE 20020731 10235094.9; DE 20020830 10241052.6

IC **F01N009/00**

PA Volkswagen AG, 38440 Wolfsburg, DE

IN Buechner, Stefan, Dr., 38527 Meine, DE; Diezemann, Matthias, 10555 Berlin, DE

AB The device for measuring combustion engine (14) exhaust gas (18) temperature in the exhaust system catalyzer (12) has an image recording device (36), the objective (40) of which is aimed, at least some of the time, at one or more measurement surfaces of the catalyzer through which the gas passes. An evaluation device is used to analyze the images and thus determine the temperature profile of the measurement surface or surfaces. An independent claim is made for a method for determining the temperature of exhaust gas passing through a catalyzer, wherein the temperature of a measurement surface of the catalyzer is optically measured, especially thermographically.



TI **METHOD OF REDUCING NOx IN DIESEL ENGINE EXHAUST**

PI **DE 112004002324 B4** 06.06. 2013

AI 112004002324 05.11.2004

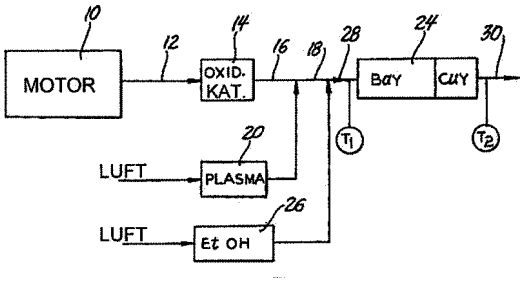
PRI US 20031211 10/734,094 11.12.2003

IC **B01D053/86** B01D053/94 B01D053/56 B01J029/08

PA General Motors Corp., Detroit, US

IN Cho, Byong Kwon, Rochester Hills, US; Lee, Jong-Hwan, Rochester Hills, US

AB [US 7090811 B2] This invention provides a method of reducing nitrogen oxides in an oxygen containing exhaust stream using ethanol as a reductant for plasma-assisted selective catalytic reduction. The exhaust gas, generated from a diesel engine or other lean-burn power source, comprises nitrogen oxides, especially NO. Ozone generated from a plasma reactor is injected into the exhaust stream to convert NO to NO₂and the plasma injection is followed by the addition of ethanol. The NO₂is then reduced by contacting the exhaust stream with a dual-bed catalytic reactor comprising BaY (or NaY) and CuY zeolite catalysts in the presence of ethanol as the ...



TI **OUTPUT CALIBRATOR FOR NOX SENSOR AND METHOD OF OUTPUT CALIBRATION**

PI **DE 112009002347 B3** 13.06. 2013

AI 112009002347 18.09.2009

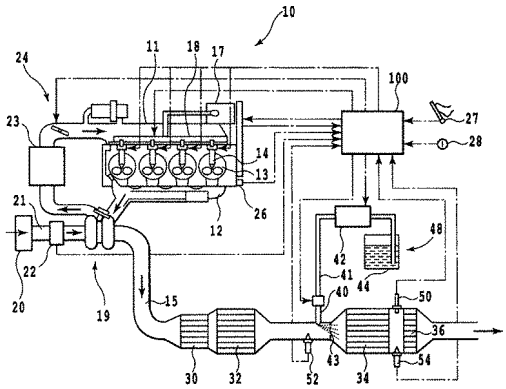
PRI JP 20080918 2008239822 18.09.2008

IC **F01N011/00** G01N027/416

PA Toyota Jidosha Kabushiki Kaisha, Toyota-shi, JP

IN Murase, Nao, Toyota-shi, JP

AB [US 8056404 B2] An output calibration apparatus for an NOx sensor according to the present invention includes a urea addition valve provided in an exhaust passage in an internal combustion engine to allow urea to be added to inside of the exhaust passage, and an NOx sensor provided at least downstream of the urea addition valve, the NOx sensor being capable of detecting not only an NOx concentration but also an ammonia concentration. The output calibration apparatus executes fuel cut on the internal combustion engine, and calibrates a gain of the NOx sensor based on ammonia obtained from the urea added via the urea addition valve during execution of the fuel cut. The ammonia obtained from t ...



TI **Exhaust system for diesel engine comprises fluidic valve selecting between paths, one of which includes nitrogen oxide storage catalyst**

PI **DE 19928974 B4** 20.06. 2013

AI 19928974 24.06.1999

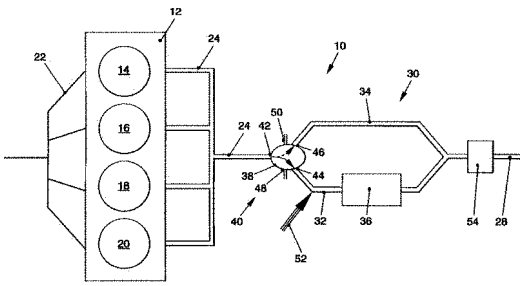
PRI DE 19990624 19928974 24.06.1999

IC **F01N013/00** F01N013/08 F01N003/10

PA Volkswagen AG, 38440 Wolfsburg, DE

IN Pott, Ekkehard, 38518 Gifhorn, DE; Koenig, Axel, Dr., 38448 Wolfsburg, DE

AB The valve (40) changing-over between the two paths, is a fluidic valve (38). Preferred Features: The fluidic valve amplifies pulses. It is a fluidic, Coanda principle-based, wall-effect flip-flop. The control flow is produced by a turbine, or by branched-off exhaust gases. It is derived from the compressor of a turbo-charged engine. A heated fuel nozzle (52) injects into the first branch (32), between fluidic valve and NOx storage catalyst (36). In an alternative, an additional exhaust gas line enters the first exhaust branch, permitting introduction of a rich exhaust gas mixture. The exhaust gas line is branched-off from an exhaust gas duct originating from one or more engine cylinders (14 ...



TI **System and method for purifying exhaust gases**

PI **EP 01170472 B2** 15.05. 2013

AI 01660135 03.07.2001

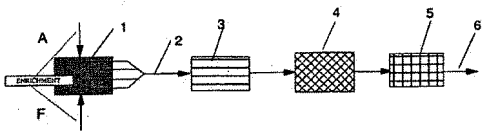
PRI FI 20000705 20001608 05.07.2000

IC **F01N003/08**

PA ECOCAT OY, 41331 Vihtavuori, FI

IN Maunula, Teuvo, 90100 Oulu, FI

AB [EP 1170472 A1] The invention is especially directed to a system for purifying exhaust gases of diesel or gasoline engines containing on average an excess of oxygen, this system including three operational units being an oxidation catalyst (3), a particle separator (4), and an NOx adsorption catalyst (5), this system reducing the amount of hydrocarbons, carbon monoxide, nitrogen oxides and particles present in exhaust gas. The invention is also directed to methods for purifying exhaust gases. <IMAGE>



TI **Exhaust-gas purifying catalyst**

PI **EP 01457249 B1** 24.04. 2013

AI 04290616 05.03.2004

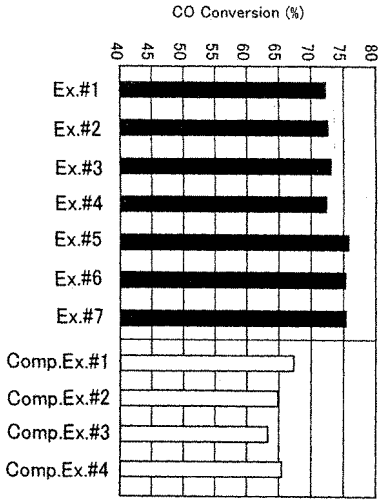
PRI JP 20030310 2003063666; JP 20040303 2004059524

IC **B01D053/94**

PA Cataler Corporation, Shizuoka 437-1492, JP

IN Shirahata, Junya Cataler Corporation, Shizuoka, 437-1492, JP

AB [EP 1457249 A1] An exhaust-gas purifying catalyst includes a catalyst support substrate, a loading layer formed on the catalyst support substrate, and a catalytic ingredient loaded on the loading layer. The loading layer includes cerium oxide and zirconium oxide, or a cerium-zirconium compound, and at least one additive member selected from the group consisting of yttrium, lanthanum, iron and potassium. A summed amount of the cerium oxide and the zirconium oxide, or an amount of the cerium-zirconium compound, is 80% by weight or more with respect to the entire loading layer taken as 100% by weight. The exhaust-gas purifying catalyst demonstrates remarkably enhanced exhaust-gas purifying per ...



TI **Control method for an exhaust gas purification system and an exhaust gas purification system**

PI **EP 01584802 B1** 08.05. 2013

AI 05102142 18.03.2005

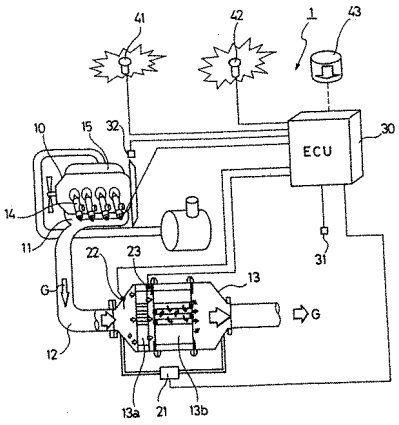
PRI JP 20040408 2004113919 08.04.2004

IC **F01N003/023** F02D041/02 F02D041/40

PA Isuzu Motors Limited, Tokyo 140-8722, JP

IN ABE, Kouzo, Kanagawa, Kanagawa 252-8501, JP

AB [EP 1584802 A2] In an exhaust gas purification system (1) provided with a continuous regeneration type DPF device (13) and DPF control means (30C), when a collecting quantity ("Pm) of PM exceeds the predetermined judgment collecting quantity ("Pm0), a number-of-regeneration-times coefficient (Rc) serving as an index of the number of regeneration times to a travel distance is compared with a predetermined judgment coefficient value (R0). When the number-of-regeneration-times coefficient (Rc) is smaller than the predetermined judgment coefficient value (R0), automatic traveling regeneration is performed and when the number-of-regeneration-times coefficient (Rc) is equal to or more than the pr ...



TI **Control method for an exhaust gas purification system and an exhaust gas purification system**

PI **EP 01584807 B1** 08.05. 2013

AI 05102139 18.03.2005

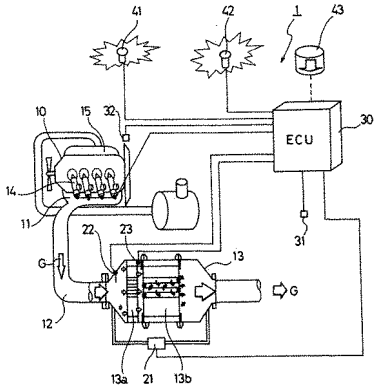
PRI JP 20040407 2004113375 07.04.2004

IC **F02D041/02** F01N003/023

PA Isuzu Motors Limited, Tokyo 140-8722, JP

IN IIZUKA, Akira, 252-8501, Kanagawa, JP; UCHIDA, Naomi, 252-8501, Kanagawa, JP; SATO, Hitoshi, 252-8501, Kanagawa, JP; MASHIKO, Tatsuo, 252-8 ...

AB [EP 1584807 A2] When an engine cooling water temperature (Tw) detected by a cooling water temperature detection means (37C) exceeds a predetermined judgment water temperatures (Tw1 and Tw2) during the forced regeneration control of a filter using exhaust gas temperature raising means (351C), the actuation of the exhaust gas temperature raising means (351C) is interrupted. Thereby, in the case of the exhaust gas purification system having a DPF apparatus (13), it is possible to prevent a water temperature meter in a driver seat from abnormally rising during the forced regeneration of a DPF (13b) and to prevent a driver from taking the abnormal rise of the water temperature meter for an engin ...



TI **EXHAUST EMISSION PURIFICATION APPARATUS FOR AN INTERNAL COMBUSTION ENGINE**

PI **EP 01691046 B1** 24.04. 2013

AI 04773252 17.09.2004

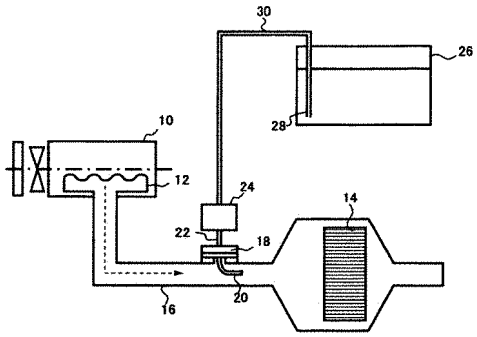
PRI JP 20030919 2003327295; JP 20030930 2003341588

IC **F01N003/20**

PA Nissan Diesel Motor Co., Ltd., Ageo-shi Saitama 362-8523, JP

IN HIRATA, Kiminobu, Ageo-shi, Saitama 362-8523, JP; AKAGAWA, Hisashi, Ageo-shi, Saitama 362-8523, JP; NAKAMURA, Shuichi, Ageo-shi, Saitama 36 ...

AB [EP 1691046 A1] An engine exhaust emission purification apparatus for reducing and purifying NOx in the exhaust emission by using a liquid reducing agent having a temperature maintenance device for maintaining a temperature of at least a part of a liquid reducing agent supply system configured by an injection nozzle and piping of the injection nozzle at a temperature lower than a boiling point of a solvent of the liquid reducing agent or equal to or higher than a melting point of dissolved matter in which the liquid reducing agent existing in the liquid reducing agent supply system conducts heat exchange with the liquid reducing agent supply system thereby being maintained at a temperature ...



TI **EXHAUST EMISSION CONTROL DEVICE**

PI **EP 01701011 B1** 08.05. 2013

AI 04747403 12.07.2004

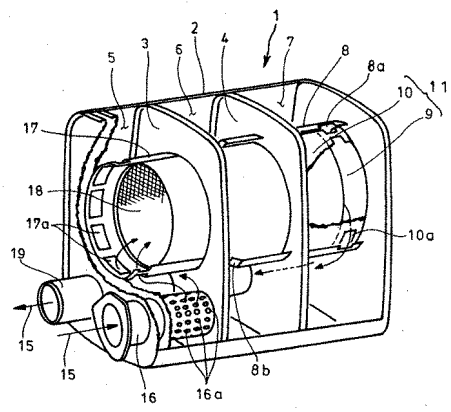
PRI JP 20031127 2003397266 27.11.2003

IC **F01N003/02** F01N003/021

PA Hino Motors, Ltd., Hino-shi, Tokyo 191-8660, JP

IN OHYA, Toshiki, c/o Hino Motors, Ltd., Hino-shi, Tokyo 191-8660, JP; ENDOU, Hiroshi, Iruma-shi, Saitama-ken 358-0013, JP

AB [EP 1701011 A1] While easiness in insertion of a filter cartridge into an inner shell is improved, reliably prevented is exhaust gas from bypassing a particulate filter and a filter cartridge from backlashing. Disclosed is an exhaust emission control device with a filter cartridge 11 fitted through insertion into an inner shell 8 of a muffler. The inner shell 8 is formed to have an inner diameter greater than an outer diameter of a cartridge shell 10 to provide an insertion clearance C. The inner shell 8 is formed with an inward, tapered portion 8b gradually reduced in diameter toward a direction of insertion of the filter cartridge 11, so that a portion of the inner shell inward of the tap ...



TI **EXHAUST EMISSION PURIFYING APPARATUS AND METHOD FOR AN INTERNAL COMBUSTION ENGINE**

PI **EP 01722078 B1** 22.05. 2013

AI 05719545 25.02.2005

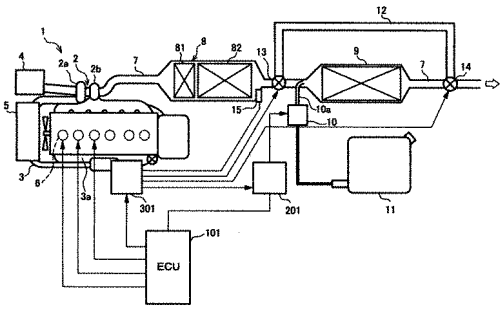
PRI JP 20040302 2004058066 02.03.2004

IC **F01N003/10** F01N003/20 B01D053/94

PA Nissan Diesel Motor Co., Ltd., Ageo-shi Saitama 362-8523, JP

IN AKAGAWA, Hisashi, NISSAN DIESEL MOTOR CO., LTD., Ageo-shi, Saitama 3628523, JP

AB A particulate filter 8 is disposed in an exhaust passage 7 of an internal combustion engine 1, and a reduction catalyst 9 is disposed downstream of the particulate filter 8. A bypass passage 12 for bypassing the reduction catalyst 9 and a flow path switching valve 13 which switches a flow path for the exhaust gas which has passed through the particulate filter 8 between the exhaust passage 7 and the bypass passage 12 are disposed. A control unit 301 controls the flow path switching valve 13 in association with a temperature Texh of the exhaust gas which has passed through the particulate filter 8.



TI **Turbocharged combustion engine**

PI **EP 01754870 B1** 22.05. 2013

AI 06014993 19.07.2006

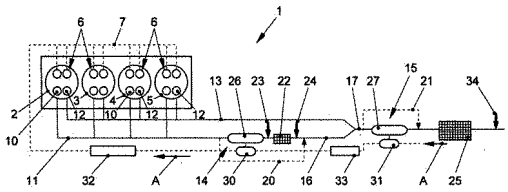
PRI DE 20050818 102005039012 18.08.2005

IC **F02B037/02** F02B037/00 F02B037/013 F02B037/007 F02B037/18 F01N003/08 F01N003/20

PA Volkswagen Aktiengesellschaft, 38440 Wolfsburg, DE

IN Pott, Ekkehard, 38518 Gifhorn, DE; Theobald, Joerg, 38165 Lehre, DE; Hagelstein, Dirk, 38110 Braunschweig, DE

AB [EP 1754870 A2] The internal combustion engine has at least two mutually independently controllable exhaust valves (10,12) per cylinder (2-5), whereby at least one of the exhaust valves is only connected to one turbocharger (14) and the other only to a second turbocharger (15) and the gas outlet (16) of the first turbocharger is connected in the feed to the second turbocharger. At least the first exhaust gas turbocharger has at least one bypass line (20).



TI **METHOD OF PRODUCING A METAL TUBULAR MEMBER**

PI **EP 01757402 B1** 01.05. 2013

AI 05743502 26.05.2005

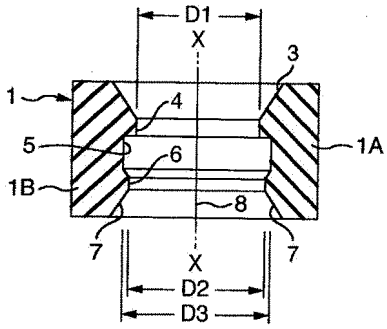
PRI JP 20040528 2004158657 28.05.2004

IC **B23P011/02** F01N001/00 F01N003/28

PA Sango Co., Ltd., Nishikamo-gun, Aichi 470-0294, JP

IN NAKANO, Hidenori, Yawatayama Kojo, SANGO CO., LTD, Nishikamo-gun, Aichi 4700224, JP

AB A method of producing a metal tubular member that is composed of two or more tube forming bodies and has at least one portion at which the tube forming bodies are superposed on each other, wherein one open annular end section of one of the tube forming bodies, which one annular end section is positioned on the inner side in the superposed section, and the other open annular end section of the other tube forming body, which the other annular end section is positioned on the outer side, are integrally joined by welding. The one annular end section is inserted into the other annular end section with the outside diameter of the one annular end section pressed by a die so as to be smaller in dia ...



TI **EXHAUST GAS AFTER-TREATMENT APPARATUS**

PI **EP 01760283 B1** 24.04. 2013

AI 05748494 06.06.2005

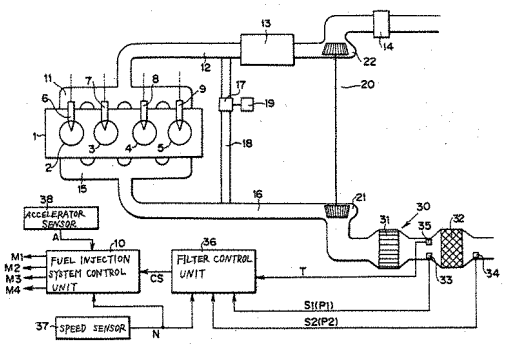
PRI JP 20040608 2004169645 08.06.2004

IC **F01N003/023** F01N003/035 F01N003/20 F01N009/00 F02D041/02 F02D041/40 B01D046/00 B01D046/24 B01D046/46 B01D053/94

PA Bosch Corporation, Tokyo 150-8360, JP

IN HIRANO, Takashi c/o Bosch Automotive Systems Corp., Saitama 355-8603, JP; SATO, Yasuhiro c/o Bosch Automotive Systems Corp., Saitama 355-86 ...

AB In an exhaust gas after-treatment apparatus (30) including a particulate filter (32) that receives an exhaust gas having passed through a catalyst converter (31) and traps particulates in an exhaust, injectors (6 through 9) used for a post fuel injection to activate the catalyst converter (31), and a filter control unit (36) that performs post fuel injection control, the filter control unit (36) includes a determination portion that determines whether a post fuel injection operation should be started, and a calculation portion that calculates an integration value of a fuel injection amount after the post fuel injection operation is started in a case where the post fuel injection operation i ...



TI **EXHAUST GAS PURIFICATION CATALYST**

PI **EP 01810749 B1** 22.05. 2013

AI 05799284 25.10.2005

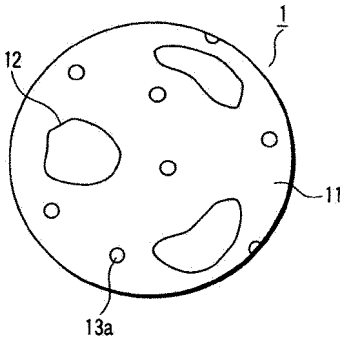
PRI JP 20041108 2004323886 08.11.2004

IC **B01J023/58** B01D053/94 B01J023/00 B01J023/63 C01G055/00

PA Cataler Corporation, Shizuoka 437-1492, JP

IN MATSUEDA, Satoshi c/o CATALER CORPORATION, Shizuoka 437-1492, JP; KIMURA, Mareo c/o CATALER CORPORATION, Shizuoka 437-1492, JP; ISHII, Yosh ...

AB Provide is an exhaust gas-purifying catalyst that is less prone to cause decrease in its activity even when used at high temperatures in an atmosphere whose oxygen concentration is high. The present invention is an exhaust gas-purifying catalyst (1) including a rare-earth element, an alkaline-earth element, and a precious metal (13a), a part of the rare-earth element and a part of the alkaline-earth element forming a composite oxide (12), and the composite oxide and a part of the precious metal forming a solid solution.



TI **SILENCER**

PI **EP 01837488 B1** 24.04. 2013

AI 06702678 12.01.2006

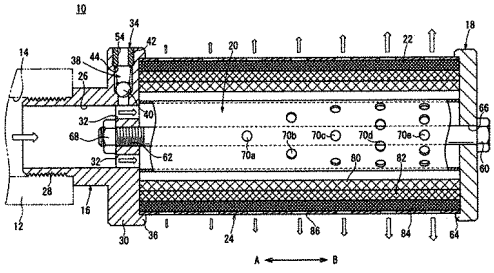
PRI JP 20050113 2005006759 13.01.2005

IC **F01N001/10** F04B039/00 B01D046/00 F01N003/021

PA SMC Kabushiki Kaisha, 4-14-1, Sotokanda Chiyoda-ku Tokyo 101-0021, JP

IN FUKANO, Yoshihiro c/o SMC KABUSHIKI KAISHA,, Ibaraki-ken 300-2493, JP; MAKADO, Shoichi c/o SMC KABUSHIKI KAISHA, Ibaraki-ken 300-2493, JP

AB [EP 1837488 A1] A silencer includes a cylindrical member (20) held between a body (16) connected to an exhaust side of a fluid pressure device (12) and a disk-shaped retaining member (18). A net-shaped sound absorber (22) is disposed around an outer circumference of the cylindrical member (20). A pressure fluid flows from the body (16) into the interior of the cylindrical member (20) and is discharged toward the sound absorber (22) through a plurality of first through fifth exhaust holes (70a to 70e) formed in the cylindrical member (20). Accordingly, dust in the pressure fluid is removed by the sound absorber (22), which is formed of a plurality of stacked filters (80, 82, 84), and further ...



TI **Honeycomb structure and honeycomb catalytic body**

PI **EP 01839748 B1** 08.05. 2013

AI 07251367 29.03.2007

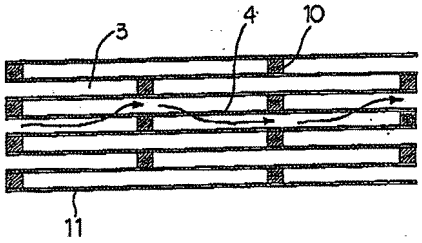
PRI JP 20060331 2006098932; JP 20070223 2007044533

IC **B01J035/04** B01D046/24 B01D053/94 B01J023/42 B01J023/46 B01J023/63 B01J037/00 C04B038/00 B01J037/02 F01N003/02

PA NGK Insulators, Ltd., Nagoya-shi, Aichi 467-8530, JP

IN Miyairi, Yukio, c/o Legal Affairs and Intellectual Prop., Nagoya City Aichi-ken, 467-8530, JP; Noda, Naomi, c/o Legal Affairs and Intellect ...

AB [EP 1839748 A2] There are disclosed a honeycomb catalytic body to which a wall flow structure is applied so that a fluid such as an exhaust gas passes through a partition wall twice or more, and a honeycomb structure for use as a catalyst carrier of the honeycomb catalytic body in which a pore characteristic and the like are appropriately adjusted as the catalytic body. In a honeycomb structure 11 including porous partition walls 4 arranged so as to form a plurality of cells 3 which communicate between two end surfaces of the honeycomb structure and having a large number of pores; and plugging portions 10 arranged so as to plug at least a part of the plurality of cells 3 at any position in ...



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

PI **EP 01861608 B1** 15.05. 2013

AI 06723685 24.03.2006

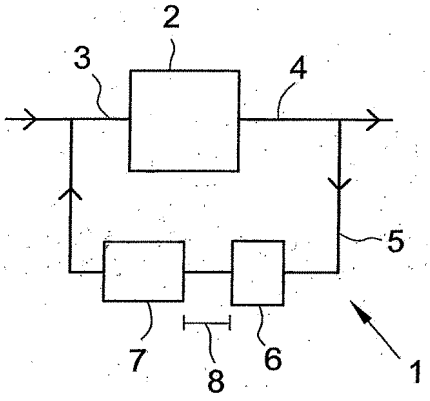
PRI DE 20050324 102005014264 24.03.2005

IC **F02M025/07** F01N003/28

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE; Behr GmbH & Co. KG, 70469 Stuttgart, DE

IN BRUeCK, Rolf, 51429 Bergisch Gladbach, DE; SCHEEDER, Andreas, 53721 Siegburg, DE; GESKES, Peter, 73760 Ostfildern, DE; MAUCHER, Ulrich, 708 ...

AB [US 7490595 B2] An exhaust gas system for an internal combustion engine includes an intake system and an exhaust outlet interconnected by an exhaust gas recirculation line having an exhaust treatment unit and a heat exchanger. The heat exchanger has a first back pressure and the exhaust treatment unit has a second back pressure, smaller than the first back pressure. The exhaust treatment unit is disposed at such a first distance from the heat exchanger in flow direction that, during operation, a gas flow entering the exhaust treatment unit is homogenized. The exhaust gas system permits an advantageous configuration of a heat exchanger and an exhaust treatment unit, such as for example a hon ...



TI **Hybrid catalyst for NOx reduction using fuel hydrocarbons as reductant**

PI **EP 01944075 B1** 01.05. 2013

AI 07021571 06.11.2007

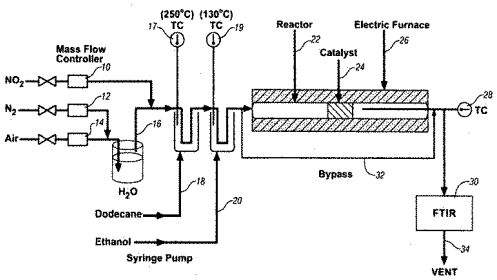
PRI US 20061205 566693 05.12.2006

IC **B01D053/94** B01J023/50 B01J029/08

PA GM Global Technology Operations LLC, Detroit, MI 48265-3000, US

IN Cho, Byong K., Rochester Hills Michigan 48309, US; Baik, Joo-Hyun, Pohang 790-390, KR

AB [EP 1944075 A2] A method for reducing nitrogen oxides including NO and NO2 in an exhaust stream also comprising oxygen, carbon monoxide and hydrocarbons at a temperature above about 150 Grad C, the method including in embodiments oxidizing NO in the exhaust stream to NO2; reforming raw diesel fuel to produce OHC s from the fuel; adding diesel fuel hydrocarbons and their oxygenates to the exhaust stream for the reduction of nitrogen oxides; and contacting the exhaust stream with a reduction hybrid catalyst comprising BaY-Ag/A1203 to reduce the nitrogen oxides to N2. The method reduces NOx initially through the (HC+OHC)/SCR process producing N2, while also producing NH3 as a byproduct over Ag ...



TI **CONTROL APPARATUS AND METHOD FOR AIR-FUEL RATIO SENSOR**

PI **EP 02029876 B1** 01.05. 2013

AI 07734634 23.05.2007

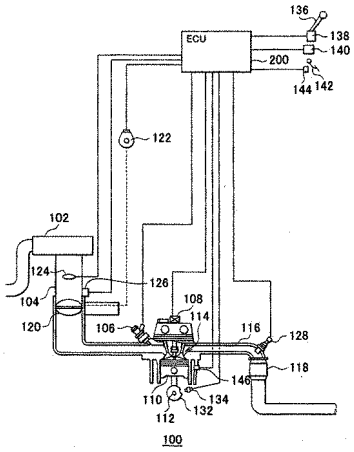
PRI JP 20060524 2006144090 24.05.2006

IC **F02D041/14** G01N027/406 G01N027/407

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN IWAHASHI, Takeshi, Aichi-ken 471-8571, JP; OHTANI, Motoki, Aichi-ken 471-8571, JP

AB [US 8000883 B2] The ECU executes a program that includes the steps of: calculating the temperature Texp of the wall surface of the exhaust port and the temperature Tsen of the wall surface of the inner cover covering the zirconia element of the A/F sensor (S110); heating the zirconia element by the heater (S130) when at least one of the condition that the temperature Texp is equal to or higher than the first threshold and the condition that the temperature Tsen is equal to or higher than the second threshold is in effect (S120: YES); and prohibiting the heating of the zirconia element by the heater (S140) when the temperature Texp is lower than the first threshold and the temperature Tsen i ...



TI **Mat material and exhaust gas treatment device**

PI **EP 02058425 B1** 01.05. 2013

AI 08004070 05.03.2008

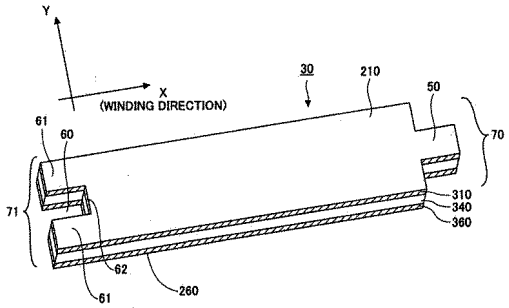
PRI JP 20071106 2007288831 06.11.2007

IC **D04H003/04** B32B007/02 F01N003/28

PA Ibiden Co., Ltd., Ogaki-shi Gifu 503-8604, JP

IN Saiki, Kenzo, Ogaki-shi, Gifu 503-8559, JP

AB [EP 2058425 A1] A mat material is disclosed that contains inorganic fibers and has first and second sheet materials on first and second surfaces thereof, respectively, characterized in that the first and second sheet materials show different elongation amounts in a longitudinal direction of the mat material when compared with each other under an identical tensile load.



TI **EXHAUST GAS PURIFICATION SYSTEM AND METHOD FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02059664 B1** 01.05. 2013

AI 07804847 29.08.2007

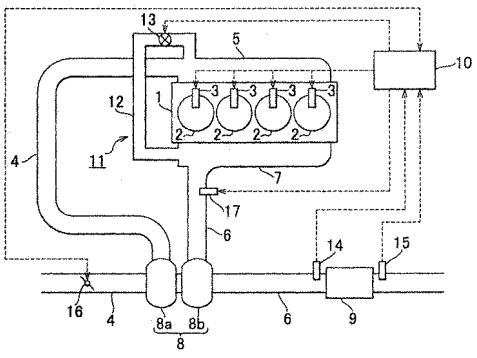
PRI JP 20060830 2006233279 30.08.2006

IC **F02D041/02** F01N003/20 F02D041/14 F01N003/08

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN YOSHIDA, Kohei, Toyota-shi, Aichi-ken, 471-8571, JP; NISHIOKA, Hiromasa, Toyota-shi, Aichi-ken, 471-8571, JP; ASANUMA, Takamitsu, Toyota-sh ...

AB [US 8061125 B2] Engine air-fuel ratio controlling means is provided to control an exhaust air-fuel ratio that is the ratio between the air contained in the exhaust gas discharged from the engine and the fuel element contained in the same exhaust gas and acting as a reducing agent at a NOx catalyst by controlling the air-fuel ratio of the gas combusted in the engine. Fuel adding means is provided upstream of the NOx catalyst in an exhaust passage to add fuel into the exhaust gas. During the SOx poisoning recovery control, when developing a state enabling SOx reduction reactions, the exhaust gas air-fuel ratio of the exhaust gas discharged from the engine and the amount of fuel added from the ...



TI **INTERNAL COMBUSTION ENGINE CONTROL APPARATUS AND METHOD**

PI **EP 02097632 B1** 24.04. 2013

AI 07866572 21.12.2007

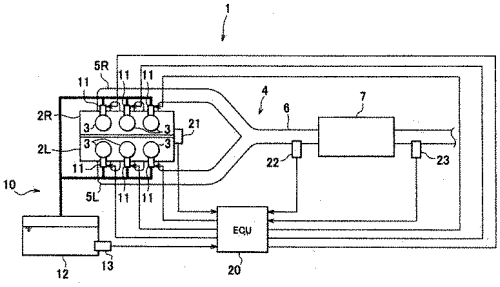
PRI JP 20061221 2006343858 21.12.2006

IC **F02D041/02**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP

IN KATOH, Kenji, Toyota-shi, Aichi-ken, 471-8571, JP

AB [US 8209105 B2] An internal combustion engine control apparatus controls an internal combustion engine including: an exhaust passage including branch portions provided for the left and right banks and a common portion in which an exhaust gas purification device is provided; and a fuel supply system that supplies fuel to the respective engine cylinders. In the internal combustion engine, in order to recover the exhaust gas purification device, a bank control is executed in which the air-fuel ratio of the cylinders of the left bank is made rich while the air-fuel ratio of the cylinders of the right bank is made lean. The internal combustion engine is capable of running on alcohol-containing f ...



TI **MULTILAYERED THREE-WAY CONVERSION CATALYST COMPOSITIONS**

PI **EP 02125200 B1** 22.05. 2013

AI 08727826 17.01.2008

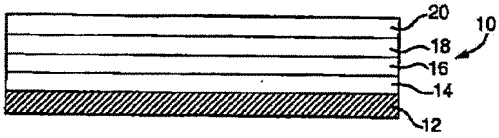
PRI US 20070202 888071 P; US 20080109 971515

IC **B01J023/40** B01J023/63 B01J037/025 B01D053/94

PA BASF Corporation, Florham Park, NJ 07932, US

IN CHEN, Shau-Lin, F., Piscataway, NJ 08854, US; WASSERMANN, Knut, Princeton, NJ 08540, US; SIEMUND, Stephan, D30982 Pattensen, DE; LUO, Tian, ...

AB [US 7754171 B2] A multilayered, three-way conversion catalyst having the capability of simultaneously catalyzing the oxidation of hydrocarbons and carbon monoxide and the reduction of nitrogen oxides is disclosed. Provided is a catalytic material of at least four layers in conjunction with a carrier, where each of the layers includes a support, at least three layers comprise a precious metal component, and at least one layer comprises an oxygen storage component (OSC). The catalytic material can further comprise a fifth layer, where at least four layers comprise a precious metal component, at least one layer comprises an oxygen storage component, and at least one layer is substantially free ...



TI **CLOSED LOOP CONTROL OF EXHAUST SYSTEM FLUID DOSING**

PI **EP 02126304 B1** 08.05. 2013

AI 08702272 18.01.2008

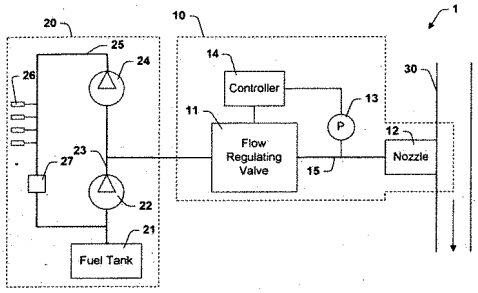
PRI US 20070122 656194 22.01.2007

IC **F01N003/36** F01N009/00 F01N011/00

PA Eaton Corporation, Cleveland, Ohio 44114-2384, US

IN BODDY, Douglas, E., Orion, Michigan 48359, US; DELL EVA, Mark, L., Grand Blanc, Michigan 48439, US; BARROWS, Eric, O., Richmond, Michigan 4 ...

AB [US 8171721 B2] An exhaust line fuel injection system and associated methods of operation and control are disclosed. The fuel passes through a regulating valve connected to a pressurized fuel source and an outlet connected to an exhaust system fuel supply line. The exhaust system fuel supply line is connected to a nozzle, which generally comprises a check-valve and is configured to inject the fuel into the exhaust line. Using a pressure measuring device, an indication of the exhaust system fuel supply line pressure is obtained. A controller provides control over the flow regulating valve using feedback from the pressure indication and a predetermined relationship between the flow rate throu ...



TI **Engine exhaust cooler and air pre-cleaner aspirator**

PI **EP 02128394 B1** 01.05. 2013

AI 09159305 04.05.2009

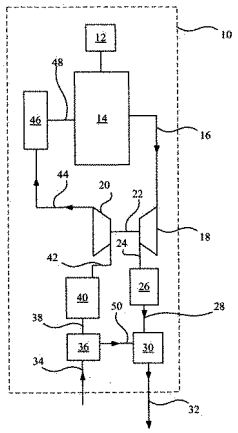
PRI US 20080530 130254 30.05.2008

IC **F01N003/05** F02M035/022 F02M035/08 B01D045/12

PA Deere & Company, Moline, IL 61265-8098, US

IN Schindler, Rodney A., Bettendorf, IA 52722, US; Sheidler, Alan D, Moline, IL 61265, US

AB [EP 2128394 A2] A diffuser for a work machine (10) having an air breathing fuel consuming internal combustion engine (14) with an exhaust aftertreatment device (26) periodically elevating the exhaust temperatures to a high level. The diffuser (30) has a venturi section and the excess contaminants from an intake air pre-cleaner (36) are directed to the throat of the venturi to aspirate and dispose of excess contaminants while cooling the exhaust flow. Additional openings in the divergent section of the diffuser assist in providing significant reductions in exhaust temperatures within a short axial envelope.



TI **EXHAUST GAS PURIFYING APPARATUS**

PI **EP 02141333 B1** 15.05. 2013

AI 08740674 18.04.2008

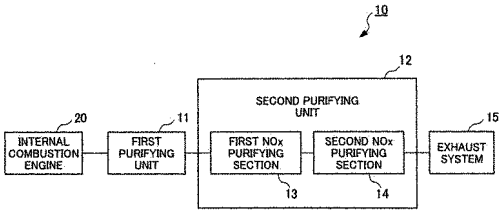
PRI JP 20070426 2007117573 26.04.2007

IC **F01N003/24** B01D053/86 B01D053/94 B01J023/63 F01N003/08 F01N003/10 F01N003/20 F01N003/28 F02D041/02 F02D043/00

PA Honda Motor Co., Ltd., Minato-ku Tokyo 107-8556, JP

IN SEKI, Chiaki, Wako-shi Saitama 351-0193, JP; ENDO, Tetsuo, Wako-shi Saitama 351-0193, JP; SATO, Naohiro, Wako-shi Saitama 351-0193, JP; YAM ...

AB [EP 2141333 A1] Disclosed is an exhaust gas purifying apparatus which can purify NOx over a wide temperature region from a low temperature region to a high temperature region. Specifically disclosed is an exhaust gas purifying apparatus (10) disposed in an exhaust path of an internal combustion engine (20) for purifying the exhaust gas discharged from the internal combustion engine (20). This exhaust gas purifying apparatus (10) is characterized by including a first purifying unit (11) disposed at an upstream side of the exhaust path and having a three-way catalyst, and a second purifying unit (12) disposed downstream of the first purifying unit (11). This exhaust gas purifying apparatus (1 ...



TI **Honeycomb structure**

PI **EP 02143694 B1** 22.05. 2013

AI 09251567 16.06.2009

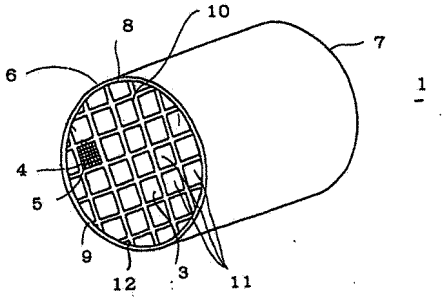
PRI JP 20080703 2008174845 03.07.2008

IC **C04B028/24** C04B037/00 C04B041/85 C04B038/00 B01J035/04 F01N003/022

PA NGK Insulators, Ltd., Nagoya-City, Aichi Pref. 467-8530, JP

IN Sato, Fumihara, Nagoya City, Aichi-ken, 467-8530, JP; Hiramatsu, Takuya, Nagoya City, Aichi-ken, 467-8530, JP; Ichikawa, Shuichi, Nagoya Ci ...

AB A honeycomb structure includes: a periphery-ground article obtained by grinding an outer peripheral portion of a cell structure 3 where honeycomb segments 11 are bonded by a bonding layer 12 at an outer wall 10 of each of them, and an outer peripheral coat layer 9 disposed on an outer peripheral face 8 of the periphery-ground article; wherein at least one of the bonding layer 12 and the outer peripheral coat layer 9 is formed using honeycomb-forming slurry containing biologically soluble fibers containing a metal oxide capable of extricating a metal ion and an inorganic binder containing a colloidal oxide having modified silica sol manufactured by adding a substance containing amine or an a ...



TI **MULTI-CYLINDER ENGINE, VEHICLE, BOAT, AND MULTI-CYLINDER ENGINE EXHAUST METHOD**

PI **EP 02163739 B1** 24.04. 2013

AI 09756230 15.06.2009

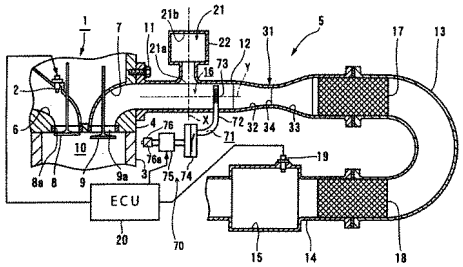
PRI JP 20080613 2008155070; JP 20080722 2008188428

IC **F01N001/02** F01N001/14 F01N003/30 F01N003/32 F01N001/00 F01N001/06

PA Yamaha Hatsudoki Kabushiki Kaisha, Iwata-shi, Shizuoka 438-8501, JP

IN TAKAHASHI Yusuke, Shizuoka 438-8501, JP; KONAKAWA Tsugunori, Shizuoka 438-8501, JP

AB [EP 2299072 A1] An internal combustion engine is capable of improving cleaning efficiency by preventing an increase in the temperature of the exhaust gas to lessen the deterioration of the catalyst. The internal combustion engine 1 includes a convergent section 32, a divergent section 33, and a branch section 21. The branch section 21 branches a shock wave 35, propagating in a downstream direction at a higher velocity than exhaust gas 36 flowing into an exhaust path 16 from a combustion chamber 10 when an exhaust valve 9 is opened, from a portion of the exhaust path 16 which is upstream with respect to the divergent section 33, and propagates the shock wave 35 back to the exhaust path 16. T ...



TI **Mat product, manufacturing method of the mat product, exhaust gas treating apparatus, and muffler apparatus**

PI **EP 02172625 B1** 15.05. 2013

AI 09010439 13.08.2009

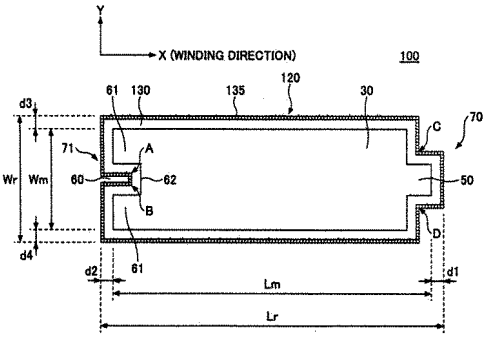
PRI JP 20080925 2008246738; JP 20090508 2009113805

IC **F01N003/028** B32B027/12 B32B019/06 F01N003/08 F01N003/021

PA Ibiden Co., Ltd., Ogaki-shi, Gifu 503-8604, JP

IN Tabata, Hiroki, Takahama-shi Aichi 444-1301, JP

AB A mat product, includes a mat member including inorganic fibers and having a full length Lm; and a package member having an full length Lr; wherein the mat member is received in an inside space of the package member; the inside space of the package member is in gas-communication with an outside environment; and the full length Lr of the package member is greater than the full length Lm of the mat member and thereby the mat member can move in the inside space along a full length direction.



TI **METHOD OF PRODUCING HONEYCOMB SEGMENT WITH SPACERS**

PI **EP 02177493 B1** 08.05. 2013

AI 08776994 29.05.2008

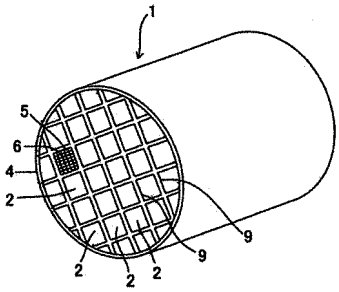
PRI JP 20070807 2007205431 07.08.2007

IC **C04B037/00** B01D039/20 F01N003/02

PA NGK Insulators, Ltd., Nagoya-shi, Aichi 467-8530, JP

IN SHIMODA, Kenjiro, Nagoya-shi Aichi 467-8530, JP; INOUE, Jun, Nagoya-shi Aichi 467-8530, JP

AB [EP 2177493 A1] Provided are a honeycomb segment with spacers, capable of allowing a bonding layer between honeycomb segments to have desired thickness, and forming a honeycomb structure having little dimensional error; a method of producing such a honeycomb segment; a honeycomb structure; and a spacer forming device for producing a honeycomb segment with spacers. Spacer forming materials are applied to an outer peripheral surface 7s of an outer peripheral wall 7 of a honeycomb segment, and then height reference jigs 32 representing a reference height from the outer peripheral surface 7s are pressed against the outer peripheral surface 7s of the outer peripheral wall 7 at positions of both ...



TI **STATIC MIXER FOR AN EXHAUST GAS SYSTEM OF AN INTERNAL COMBUSTION ENGINE-DRIVEN VEHICLE, IN PARTICULAR MOTOR VEHICLE**

PI **EP 02205345 B1** 15.05. 2013

AI 08839941 07.10.2008

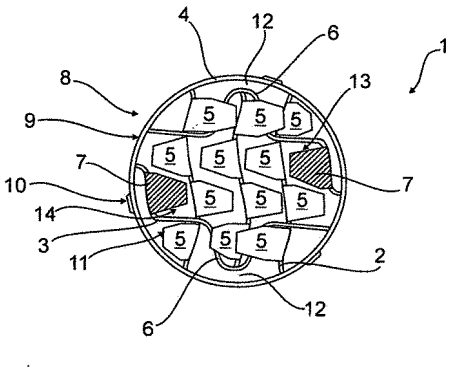
PRI DE 20071009 102007048558 09.10.2007

IC **B01F003/04** B01F005/06 B01D053/94 F01N003/28

PA Audi AG, 85045 Ingolstadt, DE; Tenneco Emmission Control Europe, 67477 Edenkoben, DE

IN PETERS, Axel, 85354 Freising, DE; BUDER, Marko, 85049 Ingolstadt, DE; GERDON, Stefan, 76863 Hayna, DE; KOHRS, Stefan, 67433 Neustadt, DE; D ...

AB [US 2010293931 A1] The invention relates to a static mixer for an exhaust gas system of an internal combustion engine-driven vehicle, with a plurality of flow guide elements which influence the flow of an exhaust gas stream and which are inclined at a given angle relative to the mixer plane and are held in the exhaust gas channel by means of at least one retaining strip. According to the invention the at least one retaining strip (2, 3) is made resilient at least in partial regions and/or is elastically supported in the plane of the mixer.



TI **EXHAUST SYSTEM FOR LEAN-BURN INTERNAL COMBUSTION ENGINE COMPRISING PD-AU-ALLOY CATALYST**

PI **EP 02274074 B1** 24.04. 2013

AI 09742402 08.05.2009

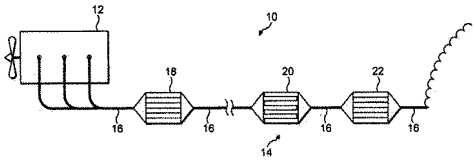
PRI GB 20080509 0808427; GB 20080521 0809233

IC **B01D053/94** B01J023/44 B01J023/52

PA Johnson Matthey PLC, London EC4A 4AB, GB

IN FISHER, Janet, Mary, Reading Berkshire RG31 7YX, GB; GOODWIN, John, Benjamin, Royston Hertfordshire SG8 5LY, GB; HINDE, Peter, Christopher, ...

AB [US 2011173959 A1] An apparatus (10) comprising a lean burn internal combustion engine (12) and an exhaust system (14) comprising at least one catalytic aftertreatment component (18, 20, 22), wherein the at least one catalytic aftertreatment component comprises a catalyst composition comprising an alloy consisting of palladium and gold on a metal oxide support.



TI **MULTI-CYLINDER ENGINE, VEHICLE, BOAT, AND MULTI-CYLINDER ENGINE EXHAUST METHOD**

PI **EP 02299072 B1** 01.05. 2013

AI 09756229 15.06.2009

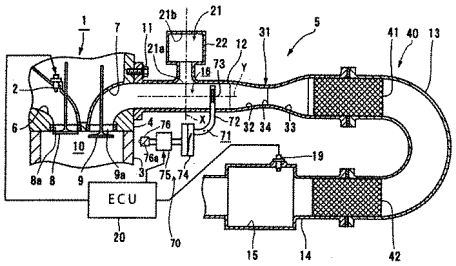
PRI JP 20080613 2008155070; JP 20080722 2008188428

IC **F01N001/02** F01N001/14 F01N003/20 F01N003/30 F01N003/32 F01N001/00

PA Yamaha Hatsudoki Kabushiki Kaisha, Iwata-shi, Shizuoka 438-8501, JP

IN TAKAHASHI Yusuke, Iwata-shi Shizuoka 438-8501, JP; KONAKAWA Tsugunori, Iwata-shi Shizuoka 438-8501, JP

AB [EP 2299072 A1] An internal combustion engine is capable of improving cleaning efficiency by preventing an increase in the temperature of the exhaust gas to lessen the deterioration of the catalyst. The internal combustion engine 1 includes a convergent section 32, a divergent section 33, and a branch section 21. The branch section 21 branches a shock wave 35, propagating in a downstream direction at a higher velocity than exhaust gas 36 flowing into an exhaust path 16 from a combustion chamber 10 when an exhaust valve 9 is opened, from a portion of the exhaust path 16 which is upstream with respect to the divergent section 33, and propagates the shock wave 35 back to the exhaust path 16. T ...



TI **EXHAUST GAS PURIFICATION SYSTEM FOR DIESEL ENGINES OF COMMERCIAL VEHICLES**

PI **EP 02310113 B1** 24.04. 2013

AI 09779985 26.06.2009

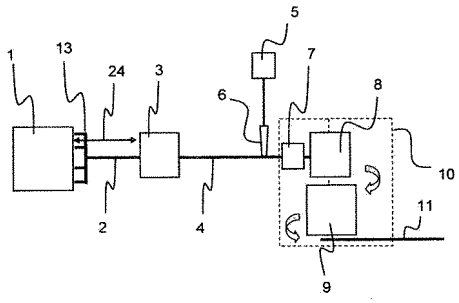
PRI DE 20080730 30.07.2008
102008035562

IC **B01D053/94** F01N003/023 F01N003/08

PA Emitec Gesellschaft fuer Emissionstechnologie mbH, 53797 Lohmar, DE

IN BRUeCK, Rolf, 51429 Bergisch Gladbach, DE

AB [US 2011162358 A1] An exhaust gas purification system for diesel engines of utility motor vehicles, includes an oxidation catalytic converter disposed in an exhaust tract, a reducing agent dosing device having a reducing agent injection device, a reducing agent decomposition device, a soot particle separator, a reduction catalytic converter and a muffler for the exhaust gases. The oxidation catalytic converter is disposed within a minimum distance directly downstream of outlet valves of the engine and a maximum distance of 0.75 m from an exhaust collecting pipe or an outlet of a turbocharger. The reducing agent decomposition device, the soot particle separator and the reduction catalytic co ...



TI **Method for operating an exhaust gas treatment system**

PI **EP 02317090 B1** 22.05. 2013

AI 11151492 23.09.2009

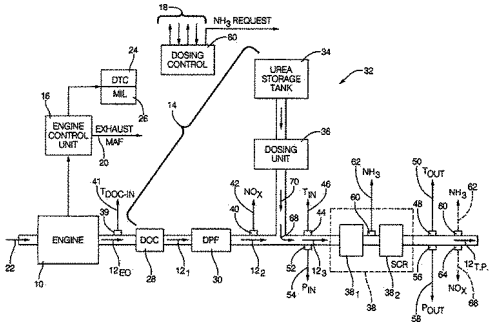
PRI US 20081024 108172 P; US 20081204 327958

IC **F01N003/20** F01N009/00

PA Delphi Technologies, Inc., Troy, MI 48007, US

IN Wu, Ming-Cheng, Troy, MI 48098, US; Herman, Andrew D., Grand Blanc, MI 48439, US; Shost, Mark Anthony, Northville, MI 48168-4437, US

AB An exhaust gas treatment system (14) includes a selective catalytic reduction (SCR) catalyst (38) and a dosing control (80) responsive to exhaust gas operating conditions for controlling the dosing rate of a reductant such as aqueous urea into the exhaust stream. The dosing control is configured to reduce the dosing rate when either a sudden increase in the exhaust mass air flow is detected or when an exhaust gas temperature gradient is in an increasing state. The dosing control is also configured to shut-off dosing when a measured ammonia concentration level exceeds an ammonia slip trip level, provided that the exhaust gas temperature gradient is also in an increasing state.



TI **Method for processing pollutants contained in exhaust gases, in particular of an internal combustion engine, and facility using such a method**

PI **EP 02333262 B1** 01.05. 2013

AI 10290585 28.10.2010

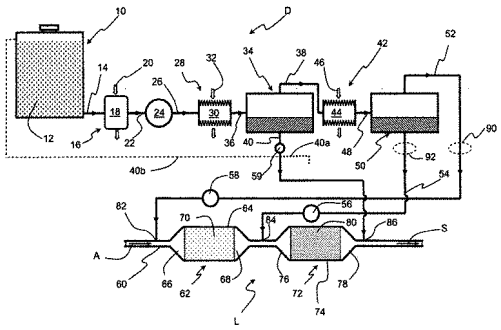
PRI FR 20091211 0906015 11.12.2009

IC **F01N003/20** C01C001/08

PA IFP Energies nouvelles, 92852 Rueil-Malmaison Cedex, FR

IN Millet, Claire-Noelle, 69540 Irigny, FR; Colliou, Thierry, 38138 Les Cotes d Arey, FR; Martin, Brigitte, 69230 St Genis Laval, FR

AB [EP 2333262 A1] The process comprises heating an organo-nitro compound for decomposition into a mixture of a reducing agent in a gas phase containing ammonia and other reducing agent in a gas phase containing hydrocarbonized substance and water vapor, compressing and then cooling the mixture to condense water vapor into a liquid phase of water and obtaining a gas phase of two reducing agents and a liquid phase of other reducing agents, and injecting reducing agents in an exhaust line with a selective catalytic unit of an installation to treat pollutants of the gases. The process comprises heating an organo-nitro compound for decomposition into a mixture of a reducing agent in a gas phase co ...



TI **Plugged honeycomb structure and method for manufacturing the same**

PI **EP 02375021 B1** 08.05. 2013

AI 11250373 24.03.2011

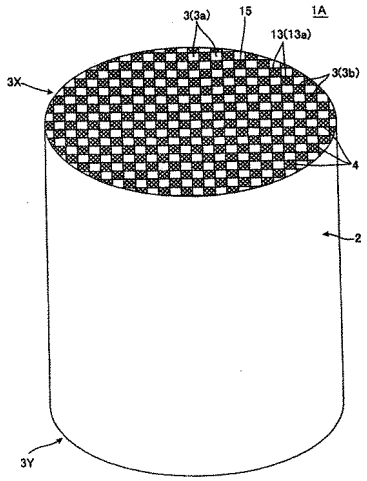
PRI JP 20100330 2010076908 30.03.2010

IC **F01N003/022** F01N003/021

PA NGK Insulators, Ltd., Nagoya-City, Aichi Pref. 467-8530, JP

IN Tokuda, Shingo, Nagoya City Aichi-ken, 467-8530, JP; Kondo, Yoshimasa, Nagoya City Aichi-ken, 467-8530, JP

AB In a plugged honeycomb structure 1A of the present invention, the PM-trapping layers 14 disposed on the surfaces of the partition walls 4 are extended up to inflow side end faces of the plugging portions 13 plugging outflow cells 3b so that adjacent PM-trapping layers 14 with the partition walls 4 and the plugging portion 13 therebetween are disposed so as to continue on the inflow side end faces of the plugging portions 13 and that the PM-trapping layers 14 extended up to the inflow side end faces of the plugging portions 13 form protruding portions 15 having a protrusion height corresponding with 0.1 to 2 times the length L of a side of the outflow cells 3b from the inflow side end faces ...



TI **Assembly for fixing an exhaust manifold to a cylinder head of a combustion engine**

PI **EP 02392793 B1** 01.05. 2013

AI 11160331 30.03.2011

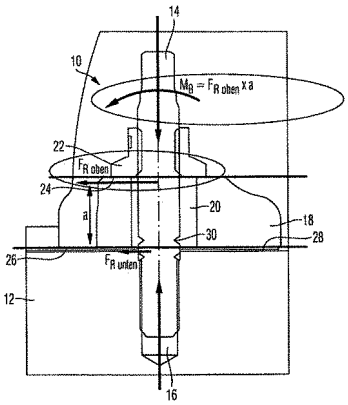
PRI DE 20100602 102010022540 02.06.2010

IC **F01N013/18**

PA Bayerische Motoren Werke Aktiengesellschaft, 80809 Muenchen, DE

IN Kastenhuber, Thomas, 4490 St. Florian, AT; Mayr, Karl, 4441 Behamberg, AT; Ehart, Robert, Dr., 3353 Seitenstetten, AT; Prosi, Martin, 4400 ...

AB The bolt has an external thread for screwing a nut (22), particularly a flange nut. A central axial section is provided which has lower bending stiffness compared to the adjacent sections of the bolt. The central axial section has a side cut (30) and is formed of a hard material. An independent claim is also included for an assembly for fixing an exhaust manifold to a cylinder head of a combustion engine.



TI **METHOD FOR PURIFICATION OF EXHAUST GAS FROM A DIESEL ENGINE**

PI **EP 02399011 B1** 24.04. 2013

AI 09795709 16.12.2009

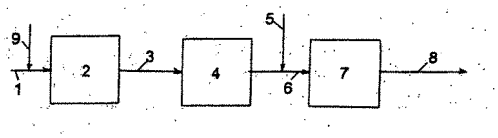
PRI DK 20090220 200900236 20.02.2009

IC **F01N003/025** F01N003/20 F01N009/00 B01D053/94 F01N003/10

PA Haldor Topsoe A/S, 2800 Kgs. Lyngby, DK

IN GEKAS, Ioannis, SE-215 70 Malmoe, SE; JOHANSEN, Keld, DK-3600 Sundbylille (Frederikssund), DK

AB [US 2011283680 A1] The invention provides a method for purification of exhaust gas from a diesel engine in a system, which comprises a device for selective catalytic reduction and a diesel particulate filter preferably at least partially covered by a catalytic layer installed downstream of the device for selective catalytic reduction. A device for catalytic oxidation is installed upstream of the device for selective catalytic reduction and/or between the device for selective catalytic reduction and the diesel particulate filter. A device for injection of a controlled amount of reductant is installed inlet of the device for selective catalytic reduction, and a device for injection of a contr ...



TI **EXHAUST GAS PURIFICATION SYSTEM FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02400124 B1** 15.05. 2013

AI 09840328 18.02.2009

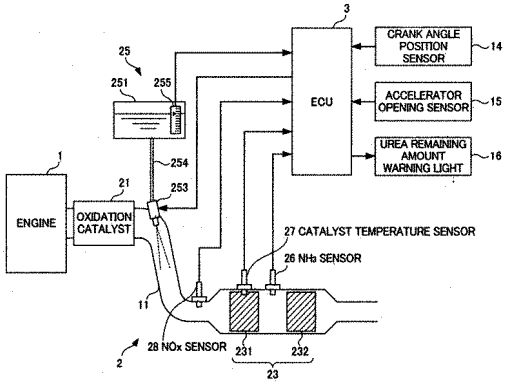
PRI EP 20090218 09840328 18.02.2009

IC **F01N003/08** F01N003/20

PA Honda Motor Co., Ltd., Minato-ku Tokyo 107-8556, JP

IN YASUI, Yuji, Wako-shi Saitama 351-0193, JP; KAWASUMI, Ikue, Wako-shi Saitama 351-0193, JP; FISCHER, Michael, OFFENBACH/AM MAIN 63073, DE

AB Provided is an exhaust gas purification system for an internal combustion engine equipped with a selective reduction catalyst, in which discharge of reducing agent to the downstream of the selective reduction catalyst can be controlled while maintaining a high NOx reduction rate. The exhaust gas purification system comprises a storage correction input calculation section (6) for calculating an estimated value ST UREA_FB of a first storage amount, and then calculating the storage correction input G UREA_ST of urea injection amount G UREA so that the estimated value ST uREA_FB of a first storage amount coincides with a predetermined target value ST UREA_TRG of a first storage amount, a slip g ...



TI **Flange module for a storage tank**

PI **EP 02400125 B1** 08.05. 2013

AI 11167041 23.05.2011

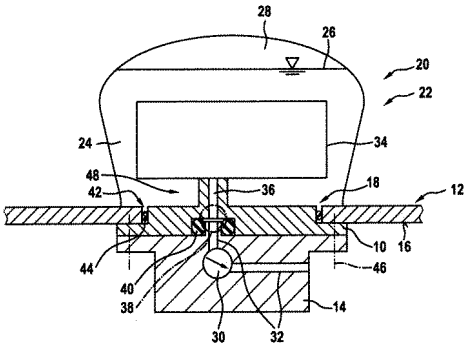
PRI DE 20100624 102010030490 24.06.2010

IC **F01N003/20**

PA Robert Bosch GmbH, 70442 Stuttgart, DE

IN Haeberer, Rainer, 75015, Bretten, DE

AB The module (100) has a flange cover (120) comprising delivery lines (36) for conveying reducing agent and electrical contacts (113) for a heating device (110), where the module is arranged in an aperture (18) at a lower side (16) of a supply tank (12) and connected with a delivery module (14). A spigot (114) is provided at the flange cover and extended along an axis (112) in axial direction. The delivery module is arranged around the spigot, and comprises a feed pump (30) and delivery lines (32). The delivery module is axially secured at the spigot.



TI **EXHAUST GAS PURIFICATION SYSTEM FOR INTERNAL COMBUSTION ENGINE**

PI **EP 02406472 B1** 01.05. 2013

AI 10710433 10.03.2010

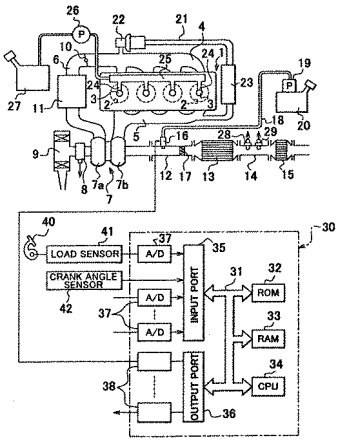
PRI JP 20090311 2009058568 11.03.2009

IC **F01N003/20**

PA TOYOTA JIDOSHA KABUSHIKI KAISHA, Toyota-shi, Aichi-ken, 471-8571, JP; Cataler Corporation, Shizuoka 437-1492, JP

IN HIROTA, Shinya, Aichi-ken, 471-8571, JP; YAMASHITA, Yoshinori, Shizuoka-ken 437-1492, JP

AB [US 8448428 B2] In an exhaust gas purification system for an internal combustion engine, a NOx selective reduction catalyst for reducing NOx with ammonia that is adsorbed on the NOx selective reduction catalyst is disposed in an exhaust passage of the engine. In the NOx selective reduction catalyst, ammonia in a first adsorption state that is adsorbed at a low temperature and ammonia in a second adsorption state that is adsorbed at a high temperature are present. Because ammonia, which has been in the first adsorption state and which is desorbed from the NOx selective reduction catalyst, tends to be discharged to the atmosphere, a control section that estimates an adsorption amount of ammon ...



TI **HEATABLE PIPELINE**

PI **EP 02418364 B1** 01.05. 2013

AI 11008918 06.12.2007

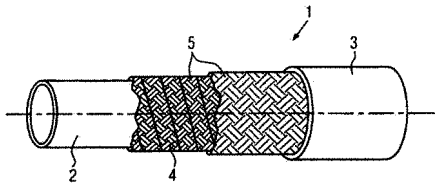
PRI DE 20070327 27.03.2007
102007014670

IC **F01N003/20** F16L011/127 F16L011/08 F16L053/00 H05B003/58

PA VERITAS AG, 63571 Gelnhausen, DE

IN Seyler, Andreas, 63584 Gruendau, DE; Hummel, Gerhard, 63633 Birstein, DE; Van Hooren, Marc, 63579 Freigericht, DE

AB [EP 2418364 A1] The heatable pipeline has inner layer (2), an outer layer (3), and a heating element (4), where the inner layer has a higher thermal conductivity than the outer layer, within the operation temperature range of the heatable pipeline. The inner and outer layer has a polymeric material, particularly an elastomeric material, and has an ethylene propylene diene monomer material. The barrier layer has a polypropylene-ethylene propylene diene monomer-copolymer.



TI **EXHAUST GAS PURIFICATION DEVICE OF ENGINE**

PI **EP 02426329 B1** 01.05. 2013

AI 11191521 02.09.2004

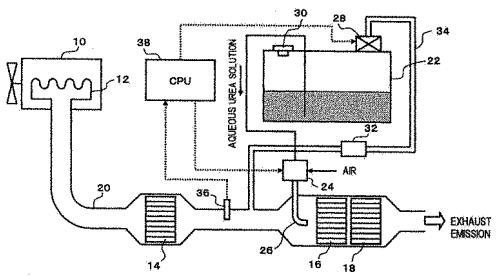
PRI JP 20030919 2003327591; JP 20030930 2003339246; JP 20030930 2003339247

IC **F01N003/08** F01N003/24 F01N003/20

PA Nissan Diesel Motor Co., Ltd., Ageo-shi Saitama 362-8523, JP

IN Masuda, Kouji, Ageo-shi, Saitama 362-8523, JP; Hirata, Kiminobu, Ageo-shi, Saitama 362-8523, JP; Akagawa, Hisashi, Ageo-shi, Saitama 362-85 ...

AB [EP 1669567 A1] A NO x reduction catalyst and an ammonia slip oxidation catalyst are disposed in an exhaust system in this order, and also, an electric fan is disposed on piping which communicates an upper space of a storage tank storing therein a reducing agent with the exhaust upstream of the NO x reduction catalyst. Then, when the temperature of the ammonia slip oxidation catalyst reaches or exceeds the temperature for activating a catalyst thereof, the electric fan is operated for a predetermined period of time, so that the gas (ammonia series gas) in the upper space of the storage tank is forcibly discharged to the upstream side of the NO x reduction catalyst. Further, a discharge-forc ...



TI **Method and device for exhaust gas cleaning**

PI **EP 02465602 B1** 01.05. 2013

AI 11193509 14.12.2011

PRI FI 20101214 20106317; FI 20110609 20115569

IC **B01F003/04** B01F005/04 B01F005/06 F01N003/20 B01F005/00

PA Proventia Emission Control Oy, 90460 Oulunsalo, FI

IN Ylimaeki, Kai, FI-91910 Tupos, FI; Tyni, Tuomas, FI-90420 Oulu, FI

AB [EP 2465602 A2] In the method a substance is fed into the exhaust gas flow flowing in the exhaust gas passage (10), which substance reacts with harmful compounds in the exhaust gas, whereby compounds are generated, which are less harmful for the environment. The reactive substance can be urea. The exhaust gas flow is with the aid of a flow guide (50) divided into two parts: a centre flow (20) flowing in the centre of the cross-section of the exhaust gas passage and an edge flow (22) circulating and advancing around the centre flow. The reactive substance is fed into the centre flow. The flow guide has a first passage part and a second passage part. The first passage part is fitted to form a ...