

Title (en)  
EXHAUST GAS RECIRCULATION DEVICE FOR INTERNAL COMBUSTION ENGINE

Title (de)  
ABGASRÜCKFÜHRUNGSVORRICHTUNG FÜR VERBRENNUNGSMOTOR

Title (fr)  
DISPOSITIF DE RECIRCULATION DES GAZ D'ÉCHAPPEMENT POUR MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2199585 A1 20100623 (EN)**

Application  
**EP 08840572 A 20081016**

Priority  
• JP 2008068702 W 20081016  
• JP 2007270280 A 20071017

Abstract (en)  
In an exhaust gas recirculation apparatus of an internal combustion engine, a technique is provided which reduces a pressure loss in a cyclone type collection device. The apparatus includes a turbocharger (5), a low pressure EGR passage (31), a cyclone type collection device (11) that is arranged in the low pressure EGR passage (31) and collects foreign matters in a low pressure EGR gas, a flow rate regulating passage (12) that causes the low pressure EGR gas to flow from a foreign matter collection part of the cyclone type collection device (11) into an exhaust passage (4) downstream of a connection part thereof with the low pressure EGR passage (31), a flow rate regulating valve (13) that is arranged in the flow rate regulating passage (12) and regulates the flow rate of the low pressure EGR gas flowing through the flow rate regulating passage (12), and a ECU (14) that performs the opening and closing control of the flow rate regulating valve in accordance with a pressure loss occurring at the time when the low pressure EGR gas flowing through the low pressure EGR passage (31) passes through the cyclone type collection device (11).

IPC 8 full level  
**F02M 25/07** (2006.01)

CPC (source: EP)  
**F02M 26/06** (2016.02); **F02M 26/35** (2016.02); **F01N 3/037** (2013.01); **F02D 41/0007** (2013.01); **F02D 41/005** (2013.01)

Cited by  
DE102011009916A1; DE102011109221A1; FR3048023A1; US2013305693A1; DE102011109221B4; US2016169165A1; US9951723B2; GB2572658A; EP3616769A1; GB2572658B; US11649791B2; WO2020043631A1; WO2012104177A1; WO2013017660A1

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