

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

Title (de)  
ABGASRÜCKFÜHRVORRICHTUNG FÜR EINE VERBRENNUNGSKRAFTMASCHINE

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

Publication  
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Application  
**EP 18724238 A 20180514**

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Abstract (en)  
[origin: WO2018215222A1] The present invention relates to an exhaust gas recirculation device (10) for an internal combustion engine comprising an exhaust gas duct (14), an inlet duct (22) and a heat exchanger (30) which can be connected fluidically at one end to the exhaust gas duct (14) and which can be connected fluidically at an opposite end to an exhaust gas recirculation duct (34) which opens into the inlet duct (22). The heat exchanger (30) has two sections (42, 44) which are separated structurally from one another and open into a manifold (46) which is connected fluidically to the exhaust gas recirculation duct (34). An exhaust gas recirculation valve (50) is arranged in the exhaust gas recirculation duct (34). Furthermore, the exhaust gas recirculation device (10) has a flap valve (54) which is arranged in the exhaust gas duct (14) in such a way that the flap valve (54) opens the exhaust gas duct (14) in a first position, and closes the exhaust gas duct (14) in the flow direction downstream of the two sections (42, 44) in a second position, with the result that the exhaust gas stream flows through the two sections (42, 44) in the direction of the exhaust gas recirculation duct (34), and the flap valve (54) closes the exhaust gas duct (14) in the region between the two sections (42, 44) in a third position, with the result that the exhaust gas stream can be conducted through the first section (44) which is arranged upstream in the exhaust gas direction, and the second section (42) can be flowed through in the opposite direction in a manner which is dependent on the position of the exhaust gas recirculation valve (50).

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