

Title (en)

Exhaust gas re-circulation device for an internal combustion engine

Title (de)

Abgasrückführvorrichtung für eine Brennkraftmaschine

Title (fr)

Dispositif de recirculation de gaz d'échappement pour un moteur à combustion interne

Publication

**EP 1136688 A2 20010926 (EN)**

Application

**EP 01104948 A 20010228**

Priority

LU 90551 A 20000322

Abstract (en)

An exhaust gas re-circulation device for an internal combustion engine comprises an intake air channel (2), an intake air control valve (18), an exhaust gas re-circulation valve (12) and an actuator (22), a first motion transmission mechanism between the actuator (22) and the exhaust gas re-circulation valve (12) and a second motion transmission mechanism between the actuator (22) and the intake air control valve (18). A first uncoupling means (26) is included in the first motion transmission mechanism and a first pull-back spring (34) biases the exhaust gas re-circulation valve (12) in a closed position. The device enables to control exhaust gas re-circulation rates by simultaneously driving the two valves in opposite senses and to obtain a smooth engine shut-off, by simultaneously closing the two valves. In a preferred embodiment, with a second uncoupling means (50) in the second motion transmission mechanism and a second pull-back spring (52) biasing the intake air control valve (18) in an open position, low exhaust gas re-circulation rates can be controlled with the intake air control valve (18) fully open. <IMAGE>

IPC 1-7

**F02M 25/07**

IPC 8 full level

**F02M 25/07** (2006.01); **F02D 9/02** (2006.01)

CPC (source: EP)

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Citation (applicant)

EP 0900930 A2 19990310 - GEN MOTORS CORP [US]

Cited by

JP2013515193A; FR3007071A1; FR2845732A1; FR3076863A1; FR2954408A1; CN102770655A; FR2954407A1; CN102822493A; JP2017009032A; US8862369B2; US9145854B2; WO2011076901A1; WO2011076876A1; JP2013515194A

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