

Title (en)  
EXHAUST GAS RETURN VALVE

Title (de)  
ABGASRÜCKFÜHRVENTIL

Title (fr)  
SOUPAPE DE RETOUR DE GAZ D'ECHAPPEMENT

Publication  
**EP 0857252 A1 19980812 (DE)**

Application  
**EP 96934428 A 19960919**

Priority  
• DE 9601775 W 19960919  
• DE 19607811 A 19960301

Abstract (en)  
[origin: DE19607811A1] The invention concerns an exhaust gas return valve whose valve member (15) cooperates with a valve seat (13) of a muff (8) of an exhaust gas return pipe (6), the muff (8) projecting into a pipe (1) of the intake system of an internal combustion engine, and the valve seat facing towards the inlet end of the exhaust gas return pipe (6). In this way, a valve member (15) of the exhaust gas return valve is acted upon by exhaust gas pressure in the closure direction, additionally to a pressure spring (29) against which an armature (25) of an electromagnet (20) acts in the opening direction. In order to equalize the forces acting in the closure direction, the exhaust gas is guided via a duct (42) in the valve stem (17) into a control space (41) which is sealed with respect to the pressure in the pipe (1) by a movable wall (36) with an operating surface which corresponds substantially to the operating surface of the valve member (15). In this way, the forces are equalized such that the control of the exhaust gas return valve depends only on the electromagnetic forces and the force of the pressure spring (29).

IPC 1-7  
**F02M 25/07**

IPC 8 full level  
**F02M 25/07** (2006.01); **F02M 26/53** (2016.01); **F02M 26/61** (2016.01); **F02M 26/67** (2016.01); **F02M 26/68** (2016.01)

CPC (source: EP US)  
**F02M 26/53** (2016.02 - EP US); **F02M 26/61** (2016.02 - EP US); **F02M 26/67** (2016.02 - EP US); **F02M 26/68** (2016.02 - EP US)

Citation (search report)  
See references of WO 9732125A1

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**DE 19607811 A1 19970904**; DE 59606643 D1 20010426; EP 0857252 A1 19980812; EP 0857252 B1 20010321; JP H11504694 A 19990427; US 5975064 A 19991102; WO 9732125 A1 19970904

DOCDB simple family (application)  
**DE 19607811 A 19960301**; DE 59606643 T 19960919; DE 9601775 W 19960919; EP 96934428 A 19960919; JP 53049797 A 19960919; US 94574798 A 19980814