

Title (en)
METHOD AND DEVICE FOR MASS FLOW DETERMINATION VIA A CONTROL VALVE AND FOR DETERMINING A MODELED INDUCTION PIPE PRESSURE

Title (de)
VERFAHREN UND VORRICHTUNG ZUM ERMITTELN EINES MASSENSTROMES ÜBER EIN STEUERVENTIL UND ZUM ERMITTELN EINES MODELLIERTEN SAUGROHRDRUCKS

Title (fr)
PROCEDE ET DISPOSITIF DE DETERMINATION D'UN DEBIT-MASSE VIA UNE VANNE DE REGLAGE, ET DE DETERMINATION D'UNE PRESSION MODELISEE AU COLLECTEUR D'ADMISSION

Publication
EP 1264227 A1 20021211 (DE)

Application
EP 01913510 A 20010118

Priority

- DE 0100200 W 20010118
- DE 10005569 A 20000209
- DE 10041073 A 20000822

Abstract (en)
[origin: WO0159536A1] A characteristic flow rate of a valve is adapted by weighing the input value valve position with a variable offset value in order to improve the accuracy of mass flow determination even when the valve is choked. The aim of the invention is to calculate a robust model for the induction pipe pressure (psaugm) by determining a modeled partial pressure (pagr) of the returned exhaust gas that deviates as little as possible from the real partial pressure of the returned exhaust gas. To this end, a modeled partial pressure (pagr) of the returned exhaust gas is derived from a characteristic flow rate of a valve disposed in an exhaust gas return pipe, depending on the valve position. The modeled partial pressure (pagr) of the returned exhaust gas derived from the characteristic flow rate is corrected adaptively, on the basis of the difference (DELTA ps) between the modeled induction pipe pressure (psaugm) and a measured induction pipe pressure (psaug) (19).

IPC 1-7
G05D 7/00; F02D 21/08; G01M 15/00

IPC 8 full level
G01F 9/00 (2006.01); **F02D 21/08** (2006.01); **F02D 45/00** (2006.01); **G05D 7/00** (2006.01); **G05D 7/06** (2006.01)

CPC (source: EP US)
F02D 41/0072 (2013.01 - EP US); **F02D 2200/0402** (2013.01 - EP US); **F02D 2200/0408** (2013.01 - EP US); **Y02T 10/40** (2013.01 - EP US)

Citation (search report)
See references of WO 0159536A1

Designated contracting state (EPC)
DE FR IT

DOCDB simple family (publication)
WO 0159536 A1 20010816; CN 1416541 A 20030507; EP 1264227 A1 20021211; JP 2003522888 A 20030729; US 2003075158 A1 20030424

DOCDB simple family (application)
DE 0100200 W 20010118; CN 01804767 A 20010118; EP 01913510 A 20010118; JP 2001558803 A 20010118; US 20359302 A 20021011