

Title (en)

Servo controlled valve with cylindrical shutter for adjusting the intake air flow rate in an internal combustion engine

Title (de)

Servogesteuertes Ventil mit zylindrischem Verschluss zum Regeln des Ansaugluftdurchsatzes bei einem Verbrennungsmotor

Title (fr)

Soupape à servocommande dotée d'un obturateur cylindrique pour le réglage du débit d'entrée d'air d'un moteur à combustion interne

Publication

**EP 1939432 A1 20080702 (EN)**

Application

**EP 06425879 A 20061229**

Priority

EP 06425879 A 20061229

Abstract (en)

A servo controlled valve (1) for adjusting the intake air flow rate in an internal combustion engine; the servo controlled valve (1) presents: a valve body (2), in which an air passage channel (3) is defined; an electrical motor (7) carried by the valve body (2); a valve seat (4) obtained within the valve body (2) and along the air passage channel (3); and a shutter (5) which engages the valve seat (4) and is rotationally mounted about an axis of rotation (6) perpendicular to the air passage channel (3) to turn between an opening position and a closing position of the air passage channel (3) under the bias of the electrical motor (7); the shutter (5) has a cylindrical shape, a longitudinal axis of symmetry coaxial to the axis of rotation (6), and presents an internal pipe (8) which is through and perpendicular to the axis of rotation (6) so as to be aligned with the air passage channel (3) in the opening position and to be perpendicular to the air passage channel (3) in the closing position.

IPC 8 full level

**F02D 9/16** (2006.01); **F02D 11/10** (2006.01)

CPC (source: EP)

**F02D 9/16** (2013.01); **F02D 11/10** (2013.01); **F02D 9/02** (2013.01); **F02D 11/106** (2013.01); **F02D 2011/102** (2013.01); **F02D 2400/06** (2013.01)

Citation (search report)

- [XAY] DE 19830575 A1 20000113 - NONOX B V [NL]
- [XAY] EP 0300479 A2 19890125 - MITSUBISHI ELECTRIC CORP [JP]
- [X] EP 1403483 A1 20040331 - MAZDA MOTOR [JP]
- [XA] EP 1559885 A2 20050803 - HONDA MOTOR CO LTD [JP]
- [YA] US 2003019521 A1 20030130 - SOUBJAKI SAM [US]
- [YA] EP 1081356 A2 20010307 - HONDA MOTOR CO LTD [JP]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 1939432 A1 20080702**

DOCDB simple family (application)

**EP 06425879 A 20061229**