

Title (en)

Throttle apparatus housing with flexible compensating elements for internal combustion engines

Title (de)

Drosselvorrichtungsgehäuse mit flexiblen Ausgleichselementen für Brennkraftmaschinen

Title (fr)

Boîtier de dispositif d'étranglement avec éléments de compensation pour moteurs à combustion interne

Publication

EP 1283340 A3 20031210 (DE)

Application

EP 02015314 A 20020710

Priority

DE 10138931 A 20010808

Abstract (en)

[origin: EP1283340A2] The device has a sectional housing with a flat valve element for fluid flow control, actuated by a servo drive. It also has a sealing and compensation element (30,31), with inner wall (46) shaped to limit the cross section of the fluid flow. The element has a contact face (43) to seal housing-sided hollow chambers (10), and consists of a formed elastomer part. Alternatively, the element may be of deformable hardenable material, which is inserted between contact faces of the housing sections during final assembly.

IPC 1-7

F02D 9/10

IPC 8 full level

F02D 9/10 (2006.01)

CPC (source: EP US)

F02D 9/104 (2013.01 - EP US); **F02D 9/106** (2013.01 - EP US); **F05C 2201/021** (2013.01 - EP US)

Citation (search report)

- [A] DE 19936457 A1 20010208 - MANN & HUMMEL FILTER [DE]
- [A] EP 1083317 A2 20010314 - SIEMENS CANADA LTD [CA]
- [A] DE 4310901 A1 19941006 - MTU FRIEDRICHSHAFEN GMBH [DE]
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13 5 February 2001 (2001-02-05)

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EP1832512A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

EP 1283340 A2 20030212; EP 1283340 A3 20031210; EP 1283340 B1 20050504; DE 10138931 A1 20030306; DE 50202977 D1 20050609; JP 2003056373 A 20030226; US 2003030022 A1 20030213; US 6761348 B2 20040713

DOCDB simple family (application)

EP 02015314 A 20020710; DE 10138931 A 20010808; DE 50202977 T 20020710; JP 2002227566 A 20020805; US 21415902 A 20020808