

Title (en)

Variable geometry muffler for an exhaust system of an internal combustion engine

Title (de)

Schalldämpfer mit variabler Geometrie für ein Abgassystem eines Verbrennungsmotors

Title (fr)

Silencieux à géométrie variable pour système d'échappement d'un moteur à combustion interne

Publication

**EP 1939416 A1 20080702 (EN)**

Application

**EP 06425877 A 20061229**

Priority

EP 06425877 A 20061229

Abstract (en)

A variable geometry muffler (1) for an exhaust system of an internal combustion engine; the muffler (1) displays: a tubular body (2), which displays an inlet opening (3), an outlet opening (4) and a labyrinth (5) which determines a path for the exhaust gases from the inlet opening (3) to the outlet opening (4); and a bypass valve (10), which is arranged within the tubular body (2) to modify the geometry of the labyrinth (5) according to the exhaust gas pressure; the bypass valve (10) displays a lid (11), which is coupled to a bypass opening (12) and is mobile from a closed position of the bypass opening (12) to an opening position of the bypass opening (12) by effect of the exhaust gas pressure and against the bias of an elastic body which tends to maintain the lid (11) in the closed position; the elastic body consists of an elastic foil (13), which is folded as a "U" and displays a mobile end (14) which supports the lid (11) and a fixed end (15) which is opposite to the mobile end (14) and which is integral with a fixed part of the muffler (1).

IPC 8 full level

**F01N 1/08** (2006.01); **F01N 1/16** (2006.01); **F01N 13/08** (2010.01)

CPC (source: EP US)

**F01N 1/083** (2013.01 - EP US); **F01N 1/084** (2013.01 - EP US); **F01N 1/163** (2013.01 - EP US); **F01N 1/165** (2013.01 - EP US); **F01N 1/166** (2013.01 - EP US)

Citation (applicant)

- WO 2005059327 A1 20050630 - FAURECIA SYS ECHAPPEMENT [FR], et al
- EP 1408206 A1 20040414 - HONDA MOTOR CO LTD [JP], et al

Citation (search report)

- [A] EP 1408206 A1 20040414 - HONDA MOTOR CO LTD [JP], et al
- [A] US 6065564 A 20000523 - UEGANE MASAYUKI [JP]
- [A] JP 2001065342 A 20010313 - CALSONIC KANSEI CORP
- [A] DE 29612708 U1 19961002 - LEISTRITZ ABGASTECH [DE]
- [A] DE 4323642 A1 19950119 - HATZ MOTOREN [DE]
- [A] JP S60178918 A 19850912 - SUZUKI MOTOR CO

Cited by

DE102014118082B4; EP2489842A1; US9062581B2; JP2012167656A

Designated contracting state (EPC)

DE ES FR GB IT

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 1939416 A1 20080702**; **EP 1939416 B1 20090819**; BR PI0705651 A 20080819; CN 101210508 A 20080702; DE 602006008646 D1 20091001; US 2008156578 A1 20080703; US 2009229911 A1 20090917

DOCDB simple family (application)

**EP 06425877 A 20061229**; BR PI0705651 A 20071227; CN 200710306337 A 20071228; DE 602006008646 T 20061229; US 46905909 A 20090520; US 96138807 A 20071220