

Title (en)
Silencer

Title (de)
Schalldämpfer

Title (fr)
Silencieux

Publication
EP 1657414 A1 20060517 (DE)

Application
EP 05108715 A 20050921

Priority
DE 102004054441 A 20041110

Abstract (en)
The muffler has housing with an inner plate (3) to reinforce the housing and two inner pipes to carry exhaust gas into the housing. The pipes are supported on the housing independent of one another. Two elastic tongues (8, 9) are provided on the plate, where the tongue (9) is connected to one pipe and moves elastically independent of the tongue (8). The tongues are formed through free cuttings or free pressings at the inner plate.

IPC 8 full level
F01N 1/08 (2006.01); **F01N 13/18** (2010.01)

CPC (source: EP US)
F01N 1/083 (2013.01 - EP US); **F01N 13/1811** (2013.01 - EP US); **F01N 13/1872** (2013.01 - EP US); **F01N 2260/10** (2013.01 - EP US)

Citation (search report)

- [A] US 5581056 A 19961203 - BELLGARDT KLAUS [DE], et al
- [A] DE 29904934 U1 20000727 - ZEUNA STAERKER KG [DE]
- [A] US 6189650 B1 20010220 - INUZUKA KAZUHIRO [JP], et al
- [A] US 5477015 A 19951219 - PRESLICKA A J [US], et al
- [A] EP 0759502 A1 19970226 - BENTELER WERKE AG [DE]
- [A] US 4023645 A 19770517 - RETKA THOMAS J, et al

Cited by
EP2006017A3; EP1985356A3; EP1842618A3; EP1843018A1; EP2518286A1; US8622167B2; US8495866B2; US8302391B2

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

DOCDB simple family (publication)
EP 1657414 A1 20060517; **EP 1657414 B1 20080813**; AT E404783 T1 20080815; DE 102004054441 A1 20060518;
DE 102004054441 B4 20060803; DE 502005005008 D1 20080925; US 2006096805 A1 20060511; US 7434658 B2 20081014

DOCDB simple family (application)
EP 05108715 A 20050921; AT 05108715 T 20050921; DE 102004054441 A 20041110; DE 502005005008 T 20050921;
US 26900405 A 20051108