

Title (en)

Exhaust Silencer

Title (de)

Abgasschalldämpfer

Title (fr)

Silencieux d'échappement

Publication

EP 2851526 B1 20180523 (DE)

Application

EP 14190957 A 20040811

Priority

- DE 10337111 A 20030811
- DE 10337110 A 20030811
- EP 08000648 A 20040811
- EP 04019054 A 20040811

Abstract (en)

[origin: EP1507071A1] The internal combustion engine silencer consists of a straight-through pipe (1) surrounded by an outer housing (2). The housing has flat end plates (3,4) and an e.g. circular-section mantle (5) joining the end plates. The pipe carrying the exhaust gas has micro-perforations (9) in its mid-portion (8) between the inlet (6) and outlet (7) portions. There are perforated tubes (12,13) in the annular space (10) between the pipe and the mantle acting as damping chambers.

IPC 8 full level

F01N 1/00 (2006.01); **F01N 1/08** (2006.01); **G10K 11/16** (2006.01)

CPC (source: EP)

F01N 1/003 (2013.01); **F01N 1/08** (2013.01); **F01N 1/082** (2013.01); **F01N 1/083** (2013.01); **G10K 11/161** (2013.01); **F01N 2470/02** (2013.01); **F01N 2470/04** (2013.01)

Citation (opposition)

Opponent : Scania CV AB

- WO 9924708 A1 19990520 - STANKIEWICZ GMBH [DE], et al
- WO 02089110 A1 20021107 - FRAUNHOFER GES FORSCHUNG [DE], et al
- DE 19802624 A1 19990729 - EBERSPAECHER J GMBH & CO [DE]
- DE 20120470 U1 20030430 - BOYSEN FRIEDRICH GMBH CO KG [DE]
- WO 9814693 A1 19980409 - SILENTOR AS [DK], et al
- DE 2738600 A1 19780302 - NIHON RADIATOR CO
- GB 841828 A 19600720 - EBERSPAECHER WALTER, et al
- DE 19730355 C1 19990318 - FRAUNHOFER GES FORSCHUNG [DE]
- WO 9424382 A1 19941027 - FRAUNHOFER GES FORSCHUNG [DE], et al
- US 4267899 A 19810519 - WAGNER WAYNE M, et al

Cited by

US11402123B2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1507071 A1 20050216; **EP 1507071 B1 20160713**; **EP 1507071 B2 20191016**; **EP 1507071 B8 20160921**; EP 2851526 A1 20150325; EP 2851526 B1 20180523

DOCDB simple family (application)

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