

Title (en)  
Multi-cyclone dust collecting apparatus

Title (de)  
Multizyklonstaubabscheider

Title (fr)  
Appareil de collection de poussière à cyclone multiple

Publication  
**EP 1707096 A3 20070815 (EN)**

Application  
**EP 05292723 A 20051216**

Priority  
• US 66609105 P 20050329  
• KR 20050037703 A 20050504

Abstract (en)  
[origin: EP1707096A2] A multi-cyclone dust collecting apparatus with improved dust collecting efficiency and suction force is provided. The multi-cyclone dust collecting apparatus includes a first (100) and a second (200) multi-cyclone units having a first cyclone (110) which collects large particles of dust and a second cyclone (120) for collecting fine particles of dust; an air inlet (300) through which dust-laden air is separated and flowed into the first (100) and the second (200) multi-cyclone units, respectively; and an air outlet (400) through which air from the second cyclone (120) of the first (100) and the second (200) multi-cyclone units is gathered and externally discharged. Because air is branched off once it is drawn into a single gate and dust is separated from the drawn air simultaneously in the plurality of multi-cyclone dust collecting apparatuses, reduction of flow speed in the dust-laden air from the suction brush can be prevented.

IPC 8 full level  
**A47L 9/16** (2006.01); **B04C 5/04** (2006.01); **B04C 5/26** (2006.01); **B04C 5/28** (2006.01)

CPC (source: EP)  
**A47L 9/1625** (2013.01); **A47L 9/1641** (2013.01); **B04C 5/04** (2013.01); **B04C 5/26** (2013.01); **B04C 5/28** (2013.01)

Citation (search report)  
• [Y] US 2372514 A 19450327 - PETER POOTJES  
• [Y] US 4222529 A 19800916 - LONG EDWARD W  
• [Y] FR 2859373 A1 20050311 - SAMSUNG KWANGJU ELECTRONICS CO [KR]  
• [Y] SE 9601771 L 19970122 - ELECTROLUX AB [SE]  
• [Y] GB 2360719 A 20011003 - NOTETRY LTD [GB], et al  
• [A] EP 1488729 A2 20041222 - MATSUSHITA ELECTRIC ESPANA S A [ES]  
• [PY] US 2005229554 A1 20051020 - OH JANG-KEUN [KR], et al  
• [Y] JP 2004135700 A 20040513 - TOSHIBA TEC KK

Cited by  
EP1837079A1; CN102772172A; CN104586319A; EP1938733A1; GB2445027B; GB2436281B; EP2931849A4; US10244614B2; US10412820B2; US10267106B2; US11806686B2; US9790108B2; US10638592B2; US7753976B2; US7955405B2; US9869277B2; US10395892B2; US9781817B2; US10098191B2; US10117318B2; US10030195B2; US9644465B2; US9951942B2; US10018351B2; US10184322B2; EP1915084B2

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 YU

DOCDB simple family (publication)  
**EP 1707096 A2 20061004; EP 1707096 A3 20070815**; AU 2005247000 A1 20061019; AU 2005247000 B2 20090108; JP 2006272314 A 20061012; RU 2005141222 A 20070710; RU 2331731 C2 20080820

DOCDB simple family (application)  
**EP 05292723 A 20051216**; AU 2005247000 A 20051221; JP 2005327839 A 20051111; RU 2005141222 A 20051229