

Title (en)
Hand-held vacuum cleaner with filter indicator

Title (de)
Handstaubsauger mit Filteranzeige

Title (fr)
Aspirateur à main avec indicateur pour filtre

Publication
EP 1452118 A3 20050629 (EN)

Application
EP 04004404 A 20040226

Priority
US 44998703 P 20030226

Abstract (en)
[origin: EP1452118A2] A hand-held portable vacuum cleaner (10a) having a filter indicator (36) that is coupled to an outlet housing (32) and in fluid communication with a portion of the outlet housing between a fan inlet and an intake. The filter indicator includes a pressure differential indicator that is configured to indicate a pressure differential between air in the portion of the outlet housing and atmospheric air pressure. The filter indicator is employed to indicate to the user of the hand-held vacuum that replacement and/or cleaning of the filter (34) is required. <IMAGE>

IPC 1-7
A47L 5/24; **A47L 9/19**

IPC 8 full level
A47L 5/14 (2006.01); **A47L 5/24** (2006.01); **A47L 7/04** (2006.01); **A47L 9/02** (2006.01); **A47L 9/19** (2006.01); **A47L 9/24** (2006.01)

CPC (source: EP)
A47L 5/14 (2013.01); **A47L 5/24** (2013.01); **A47L 7/04** (2013.01); **A47L 9/02** (2013.01); **A47L 9/19** (2013.01); **A47L 9/242** (2013.01)

Citation (search report)
• [Y] US 6434785 B1 20020820 - VANDENBELT RUDY A [CA], et al
• [Y] EP 0430146 A1 19910605 - MATSUSHITA ELECTRIC IND CO LTD [JP]
• [Y] US 6125501 A 20001003 - YIP CHUNG LUN [HK]
• [A] EP 1222891 A2 20020717 - ROYAL APPLIANCE MFG [US]
• [A] EP 1070478 A2 20010124 - BLACK & DECKER INC [US]
• [A] US 3381652 A 19680507 - SCHAEFER HAROLD W, et al

Cited by
CN114052556A; CN114680729A; RU2496402C2; GB2440110A; CN105708391A; US8117712B2; WO2008009887A1

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EP 1452118 A2 20040901; **EP 1452118 A3 20050629**; AU 2004216122 A1 20040910; CA 2459028 A1 20040826; CN 100446709 C 20081231; CN 101390726 A 20090325; CN 1644150 A 20050727; CN 1780577 A 20060531

DOCDB simple family (application)
EP 04004404 A 20040226; AU 2004216122 A 20040226; CA 2459028 A 20040226; CN 200410033035 A 20040226; CN 200480011121 A 20040226; CN 200810168366 A 20040226