

Title (en)

Device for determining a fill level of a dust collector for a vacuum cleaner

Title (de)

Vorrichtung zur Bestimmung eines Füllgrades eines Staubsammelbehälters für einen Staubsauger

Title (fr)

Dispositif de détermination du degré de remplissage d'un récipient de collecte de poussière pour un aspirateur

Publication

EP 2457487 A3 20171101 (DE)

Application

EP 11190142 A 20111122

Priority

DE 102010062146 A 20101129

Abstract (en)

[origin: EP2457487A2] The device has a resonator element (5) held at an outer wall (4) of a dirt collection container (1). An excitation element (6) i.e. piezo element, excites the resonator element for mechanical vibrations. Detection units (9) detect variables that characterize damping of the mechanical vibrations. The detection units determine a filling level of the dirt collection container dependent upon the determined variable. The resonator element is designed as a vibration body and an elastic membrane (5-1), which is made of rubber on latex base. An independent claim is also included for a vacuum cleaner that comprises a centrifugal force separator.

IPC 8 full level

A47L 9/19 (2006.01); **A47L 9/16** (2006.01); **A47L 9/28** (2006.01)

CPC (source: EP)

A47L 9/19 (2013.01); **A47L 9/281** (2013.01)

Citation (search report)

- [YA] WO 2007036567 A1 20070405 - BSH BOSCH SIEMENS HAUSGERAETE [DE], et al
- [YA] DE 3625779 A1 19880204 - VEGA GRIESHABER GMBH & CO [DE]
- [A] DE 102008054945 A1 20100624 - ENDRESS & HAUSER GMBH & CO KG [DE]
- [A] JP H0739498 A 19950210 - MATSUSHITA ELECTRIC IND CO LTD

Cited by

WO2020238076A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2457487 A2 20120530; EP 2457487 A3 20171101; EP 2457487 B1 20200520; DE 102010062146 A1 20120531;
DE 102010062146 B4 20130411

DOCDB simple family (application)

EP 11190142 A 20111122; DE 102010062146 A 20101129