

Title (en)

REMOVABLE ROTATABLE AGITATOR WITH A TAB CONFIGURED TO BE GRIPPED BY A USER

Title (de)

ABNEHMBARER DREHBARER RÜHRER MIT EINEM KNOPF ZUM GREIFEN DURCH EINEN BENUTZER

Title (fr)

AGITATEUR TOURNABLE AMOVIBLE AVEC UNE POIGNÉE CONFIGURÉE D'ÊTRE SAISIT PAR UN UTILISATEUR

Publication

EP 4008228 B1 20230308 (EN)

Application

EP 22153318 A 20160128

Priority

- US 201562110232 P 20150130
- US 201514739915 A 20150615
- US 201514744438 A 20150619
- US 201514801185 A 20150716
- US 201514812734 A 20150729
- US 201514867599 A 20150928
- EP 16744107 A 20160128
- US 2016015370 W 20160128

Abstract (en)

[origin: EP4008228A1] A removable rotatable agitator (130, 730) for use in a surface cleaning head (100, 700, 2400, 2500, 2600, 2700, 2800, 2900), the removable rotatable agitator comprising: the agitator, or an agitator body (131, 531, 631, 731) having a driven end (132, 732) and a non-driven end (134, 754); at least one agitator element (136, 536) located on at least a portion of the agitator body between the driven end and the non-driven end; a tab (796), or an end cap including a tab, the tab extending radially from at least one end of the agitator body and configured to be gripped by a user to facilitate removing and inserting the non-driven end into an agitator chamber (120, 720) in the surface cleaning head; and a splined driven member (780) located at the driven end of the agitator body, the splined driven member being configured to mate axially and engage with a splined drive member (770) on a drive mechanism (750) in the surface cleaning head.

IPC 8 full level

A47L 9/04 (2006.01); **A47L 5/30** (2006.01)

CPC (source: CN EP KR)

A47L 5/30 (2013.01 - EP KR); **A47L 9/04** (2013.01 - CN); **A47L 9/0411** (2013.01 - EP); **A47L 9/0444** (2013.01 - EP KR); **A47L 9/0455** (2013.01 - EP KR); **A47L 9/0461** (2013.01 - CN); **A47L 9/0477** (2013.01 - EP KR)

Citation (opposition)

Opponent : JIAO, Yejun

- WO 2005111084 A2 20051124 - DYSON TECHNOLOGY LTD [GB], et al
- WO 2015015166 A1 20150205 - DYSON TECHNOLOGY LTD [GB]
- ANONYMOUS: "Der Allrounder für versiegelte Hartböden", TESTMAGAZIN, 31 March 2012 (2012-03-31), XP093172672, Retrieved from the Internet <URL:https://etm-testmagazin.de/tests/philips-aquatrio-fc7070-im-test/>

Cited by

EP4311466A1; FR3138290A1; WO2024023449A1

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

DOCDB simple family (publication)

EP 4008228 A1 20220608; EP 4008228 B1 20230308; AU 2016211450 A1 20170921; AU 2016211450 B2 20200820; CA 2975385 A1 20160804; CA 2975385 C 20210629; CN 109152502 A 20190104; CN 109152502 B 20220225; CN 114504267 A 20220517; CN 114504267 B 20230818; DE 202016009173 U1 20230614; EP 3250102 A1 20171206; EP 3250102 A4 20190213; EP 3250102 B1 20220126; EP 4212079 A1 20230719; ES 2911275 T3 20220518; ES 2943708 T3 20230615; JP 2018503473 A 20180208; JP 2021118911 A 20210812; JP 7248734 B2 20230329; JP 7251919 B2 20230404; KR 102293191 B1 20210825; KR 20170125832 A 20171115

DOCDB simple family (application)

EP 22153318 A 20160128; AU 2016211450 A 20160128; CA 2975385 A 20160128; CN 201680020710 A 20160128; CN 202210050729 A 20160128; DE 202016009173 U 20160128; EP 16744107 A 20160128; EP 23159789 A 20160128; ES 16744107 T 20160128; ES 22153318 T 20160128; JP 2017540638 A 20160128; JP 2021078012 A 20210430; KR 20177024440 A 20160128