

## Title (en)

FLOOR CLEANING MACHINE WITH PIVOT AND METHOD FOR OPERATING A FLOOR CLEANING MACHINE

## Title (de)

BODENREINIGUNGSMASCHINE MIT SCHWENKGelenK UND VERFAHREN ZUM BETREIBEN EINER BODENREINIGUNGSMASCHINE

## Title (fr)

MACHINE DE NETTOYAGE DE SOL DOTÉE D'UNE ARTICULATION PIVOTANTE ET PROCÉDÉ DE FONCTIONNEMENT D'UNE MACHINE DE NETTOYAGE DE SOL

## Publication

**EP 4201285 A1 20230628 (DE)**

## Application

**EP 22213551 A 20221214**

## Priority

DE 102021134552 A 20211223

## Abstract (en)

[origin: CN116327051A] The invention relates to a floor cleaning machine with a swing joint and a method for operating the floor cleaning machine. The floor cleaning machine comprises a cleaning head (12), at least one cleaning roller unit (18) which is arranged on the cleaning head (12) in a rotatable manner about an axis of rotation (46), and a grip device (36) which is held on the cleaning head (12) in a pivotable manner via a pivot joint (84), the pivot axis (40) of the pivot joint (84) coinciding with the axis of rotation (46) of the at least one cleaning roller unit (18).

## Abstract (de)

Es wird eine Bodenreinigungsmaschine bereitgestellt, umfassend einen Reinigungskopf (12), mindestens eine Reinigungswalzeneinheit (18), welche um eine Rotationsachse (46) rotierbar an dem Reinigungskopf (12) angeordnet ist, und eine Haltestabeinrichtung (36), welche über ein Schwenkgelenk (84) schwenkbar an dem Reinigungskopf (12) gehalten ist, wobei eine Schwenkachse (40) des Schwenkgelenks (84) mit der Rotationsachse (46) der mindestens einen Reinigungswalzeneinheit (18) zusammenfällt.

## IPC 8 full level

**A47L 5/30** (2006.01); **A47L 11/18** (2006.01); **A47L 13/10** (2006.01)

## CPC (source: CN EP)

**A47L 5/30** (2013.01 - EP); **A47L 11/18** (2013.01 - EP); **A47L 11/282** (2013.01 - CN); **A47L 11/4041** (2013.01 - CN); **A47L 13/10** (2013.01 - EP); **A47L 2201/00** (2013.01 - CN)

## Citation (applicant)

- WO 2021013343 A1 20210128 - KAERCHER ALFRED SE & CO KG [DE]
- US 2020253447 A1 20200813 - WANG GUOSHUN [CN], et al
- US 3127628 A 19640407 - EMIL KLUMB
- DE 2134665 C2 19821216
- US 2010270901 A1 20101028 - KIM UNG-SU [KR], et al
- DE 202015101302 U1 20150408 - VORWERK CO INTERHOLDING [DE]
- WO 2016058901 A1 20160421 - KAERCHER GMBH & CO KG ALFRED [DE]
- WO 2016058856 A1 20160421 - KAERCHER GMBH & CO KG ALFRED [DE]
- WO 2017063663 A1 20170420 - KAERCHER GMBH & CO KG ALFRED [DE]
- WO 2016058879 A1 20160421 - KAERCHER GMBH & CO KG ALFRED [DE]
- WO 2016058956 A1 20160421 - KAERCHER GMBH & CO KG ALFRED [DE]
- WO 2016058907 A1 20160421 - KAERCHER GMBH & CO KG ALFRED [DE]
- US 4875246 A 19891024 - MACGREGOR FRANCIS W [US]
- DE 202009013434 U1 20091217 - KONINKL PHILIPS ELECTRONICS NV [NL]
- CN 201197698 Y 20090225 - ZHE YUAN [CN]
- US 6026529 A 20000222 - CARUSO STEVEN JEROME [US]
- WO 2010041185 A1 20100415 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- US 7665174 B2 20100223 - BASHAM MICHAEL T [US], et al
- US 4173054 A 19791106 - ANDO MASUMI [JP]
- WO 2013106762 A2 20130718 - KENT RES CORP [US]
- US 7921497 B2 20110412 - COOK STEPHEN B [US], et al
- WO 2015086083 A1 20150618 - KAERCHER GMBH & CO KG ALFRED [DE]
- US 3789449 A 19740205 - MACFARLAND C, et al
- DE 10357637 A1 20050707 - VORWERK CO INTERHOLDING [DE]
- DE 102007054500 A1 20080529 - VORWERK CO INTERHOLDING [DE]
- US 2006272120 A1 20061207 - BARRICK KENNETH [US], et al
- DE 102017120723 A1 20190314 - KAERCHER ALFRED SE & CO KG [DE]
- WO 2005087075 A1 20050922 - ELECTROLUX AB [SE], et al
- CN 107007215 A 20170804 - SHENZHEN DECHENG NETWORK TECH CO LTD
- DE 202018104772 U1 20180907 - HIZERO TECH CO LTD [CN]
- AU 2017101723 A4 20180118 - BISSELL INC [US]
- CN 206687671 U 20171201 - TANG FEIYU
- DE 202016105300 U1 20161021 - HIZERO TECH CO LTD [CN]
- US 9622637 B1 20170418 - HSIEH YU-CHUAN [TW], et al
- CN 205359367 U 20160706 - UNIV NANJING INFORMATION SCIENCE & TECH
- US 2017119225 A1 20170504 - XIA JINCHENG [CN], et al
- CN 205181250 U 20160427 - HIZERO TECH CO LTD
- CN 205181251 U 20160427 - HIZERO TECH CO LTD
- CN 205181256 U 20160427 - HIZERO TECH CO LTD
- DE 202016105299 U1 20161019 - HIZERO TECH CO LTD [CN]
- WO 2017059602 A1 20170413 - HIZERO TECH CO LTD [CN]
- WO 2017059600 A1 20170413 - HIZERO TECH CO LTD [CN]
- WO 2017059601 A1 20170413 - HIZERO TECH CO LTD [CN]
- WO 2017059603 A1 20170413 - HIZERO TECH CO LTD [CN]

- DE 202016105301 U1 20161019 - HIZERO TECH CO LTD [CN]

Citation (search report)

- [XA] US 4875246 A 19891024 - MACGREGOR FRANCIS W [US]
- [XA] EP 3695767 A1 20200819 - BISSELL INC [US]
- [A] DE 2134665 A1 19720120 - BRUSH CO LTD
- [A] US 3127628 A 19640407 - EMIL KLUMB

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4201285 A1 20230628**; CN 116327051 A 20230627; DE 102021134552 A1 20230629

DOCDB simple family (application)

**EP 22213551 A 20221214**; CN 202211655097 A 20221222; DE 102021134552 A 20211223