

Title (en)

DEVICE AND METHOD FOR DESCALING A MOVING WORKPIECE

Title (de)

VORRICHTUNG UND VERFAHREN ZUM ENTZUNDERN EINES BEWEGTEN WERKSTÜCKS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE DÉCALAMINAGE D'UNE PIÈCE DÉPLACÉE

Publication

**EP 3429773 B1 20200506 (DE)**

Application

**EP 17712093 A 20170317**

Priority

- DE 102016204570 A 20160318
- DE 102016204579 A 20160318
- DE 102016217562 A 20160914
- DE 102016217561 A 20160914
- DE 102016217560 A 20160914
- EP 2017056462 W 20170317

Abstract (en)

[origin: WO2017157940A1] The invention relates to a device and a method for descaling a workpiece that is in motion relative to the device in a movement direction (X). The device (10) comprises a rotor head (14) which can rotate about an axis of rotation (R) that is tilted, at an angle ( $\gamma$ ), at an incline with respect to an orthogonal line to a surface (20) of the workpiece (12). The device also comprises a plurality of jet nozzles (16) mounted on the rotor head (14), wherein a liquid (18), particularly water, can be emitted from the jet nozzles (16) onto the workpiece (12) at an angle of incidence ( $\alpha$ ) at an incline to the surface (20) of said workpiece (12). The jet nozzles (16) are mounted rigidly on the rotor head (14) such that, when said rotor head (14) rotates about its axis of rotation (R), the spray direction (S) of the liquid (18) emitted from the jet nozzles (16) is directed counter relative to a projection into a plane parallel to the surface (20) of the workpiece (12), i.e. at a spray angle ( $\beta$ ) of approximately 180° to the movement direction (X) of the workpiece (12).

IPC 8 full level

**B21B 45/08** (2006.01)

CPC (source: EP KR RU US)

**B05B 3/022** (2013.01 - KR); **B05B 13/0421** (2013.01 - KR); **B05B 13/0484** (2013.01 - EP KR US); **B05B 14/30** (2018.01 - EP US); **B08B 3/022** (2013.01 - EP KR US); **B21B 38/00** (2013.01 - KR); **B21B 45/08** (2013.01 - EP KR RU US); **B05B 13/0421** (2013.01 - EP US); **B08B 2203/0264** (2013.01 - EP KR US); **B21B 38/00** (2013.01 - EP US); **B21B 2038/004** (2013.01 - EP KR US); **B21B 2275/06** (2013.01 - EP KR US)

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)

**WO 2017157940 A1 20170921**; CN 108778543 A 20181109; CN 108778543 B 20200410; CN 108778544 A 20181109; CN 108778544 B 20201127; CN 108883452 A 20181123; CN 108883452 B 20210115; DE 102016217560 A1 20170921; DE 102016217561 A1 20170921; DE 102016217562 A1 20170921; EP 3429770 A1 20190123; EP 3429770 B1 20200513; EP 3429771 A1 20190123; EP 3429771 B1 20200708; EP 3429773 A1 20190123; EP 3429773 B1 20200506; JP 2019508257 A 20190328; JP 2019511366 A 20190425; JP 2019511367 A 20190425; JP 6770088 B2 20201014; JP 7018020 B2 20220209; KR 102141440 B1 20200805; KR 102166086 B1 20201015; KR 102183495 B1 20201126; KR 20180113588 A 20181016; KR 20180117139 A 20181026; KR 20180117157 A 20181026; RU 2697746 C1 20190819; RU 2699426 C1 20190905; RU 2701586 C1 20190930; US 11103907 B2 20210831; US 2019076900 A1 20190314; WO 2017158035 A1 20170921; WO 2017158191 A1 20170921

DOCDB simple family (application)

**EP 2017055996 W 20170314**; CN 201780017801 A 20170314; CN 201780018043 A 20170317; CN 201780018324 A 20170315; DE 102016217560 A 20160914; DE 102016217561 A 20160914; DE 102016217562 A 20160914; EP 17710888 A 20170314; EP 17711626 A 20170315; EP 17712093 A 20170317; EP 2017056141 W 20170315; EP 2017056462 W 20170317; JP 2018548685 A 20170314; JP 2018548803 A 20170317; JP 2018548822 A 20170315; KR 20187026798 A 20170314; KR 20187027508 A 20170315; KR 20187027829 A 20170317; RU 2018131161 A 20170314; RU 2018131172 A 20170315; RU 2018131260 A 20170317; US 201716085013 A 20170314