

Title (en)

EQUIPMENT FOR WASHING THE FLOATING PLASTIC WASTE USING ULTRASOUND

Title (de)

VORRICHTUNG ZUM WASCHEN VON SCHWIMMENDEN KUNSTSTOFFABFÄLLEN MIT ULTRASCHALL

Title (fr)

EQUIPEMENT POUR LE LAVAGE PAR ULTRASONS DE DECHETS PLASTIQUES FLOTTANTS

Publication

**EP 4327947 A3 20240410 (EN)**

Application

**EP 23185778 A 20230717**

Priority

LT 2022529 A 20220726

Abstract (en)

The invention relates to an ultrasonic washing equipment for washing the floating plastic waste whose density is lower than the density of the washing liquid. The equipment of the present invention comprises a plastic waste washing tank (1) consisting of individual metal segments of rectangular cross-section (1.1, 1.2, 1.3) having ultrasonic modules arranged inside; a spiral conveyor (6) with a container (7) for feeding plastic waste into the washing tank (1), directed at an angle of 60° from the top down to the bottom of the washing tank (1); a screw conveyor (8) for unloading the washed plastic waste from the washing tank (1), arranged at the top of the washing tank (1); deflecting plates (11) to passively slow down the upward movement of the plastic waste in the washing tank (1) and to direct the flow of the rising plastic waste closest to the cavitation zone generated by the ultrasonic modules; an output (12) for the removal of dirt accumulated at the bottom of the washing tank (1) during the washing of plastic waste; an inlet (13) for refilling the liquid in the washing tank (1).

IPC 8 full level

**B03B 5/28** (2006.01); **B03B 5/36** (2006.01); **B08B 3/12** (2006.01)

CPC (source: EP)

**B03B 5/28** (2013.01); **B03B 5/36** (2013.01); **B08B 3/123** (2013.01); **B08B 3/12** (2013.01)

Citation (search report)

- [A] CN 108160606 A 20180615 - JIANGXI ROYAL ONE RENEWABLE RESOURCES CO LTD
- [A] CN 103128075 A 20130605 - ZHANGJIAGANG BEIER MACH CO LTD
- [A] CN 205085083 U 20160316 - ZHEJIANG HUAFEI RECYCLING RESOURCES CO LTD

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 4327947 A2 20240228**; **EP 4327947 A3 20240410**; LT 2022529 A 20240212; LT 7050 B 20240226

DOCDB simple family (application)

**EP 23185778 A 20230717**; LT 2022529 A 20220726