



(11)

EP 4 327 947 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
10.04.2024 Bulletin 2024/15

(51) International Patent Classification (IPC):
B03B 5/28 (2006.01) **B03B 5/36 (2006.01)**
B08B 3/12 (2006.01)

(43) Date of publication A2:
28.02.2024 Bulletin 2024/09

(52) Cooperative Patent Classification (CPC):
B03B 5/36; B03B 5/28; B08B 3/12

(21) Application number: 23185778.0

(22) Date of filing: 17.07.2023

(84) Designated Contracting States:
**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 States:
BA
Designated Validation States:
KH MA MD TN

(30) Priority: 26.07.2022 LT 2022529

(71) Applicant: **UAB It Is Future**
27105 Vilnius (LT)

(72) Inventor: **PODERIS, Vytas**
10255 Vilnius (LT)

(74) Representative: **Pranevicius, Gediminas**
Law firm IP Forma
Uzupio g. 30
01203 Vilnius (LT)

(54) EQUIPMENT FOR WASHING THE FLOATING PLASTIC WASTE USING ULTRASOUND

(57) 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).

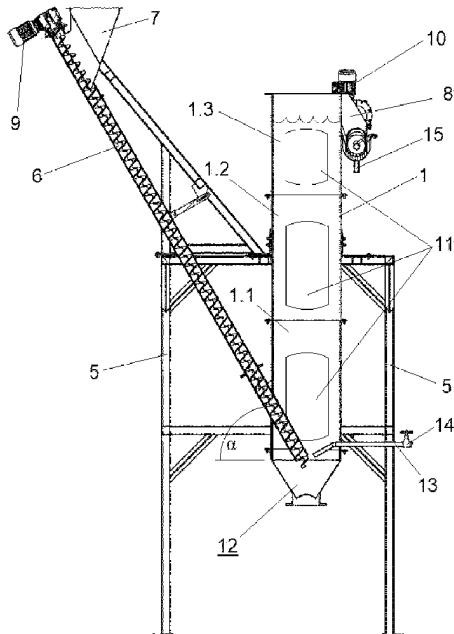


Fig. 2



EUROPEAN SEARCH REPORT

Application Number

EP 23 18 5778

5

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
10	<p>A CN 108 160 606 A (JIANGXI ROYAL ONE RENEWABLE RESOURCES CO LTD) 15 June 2018 (2018-06-15) * the whole document *</p> <p>-----</p>	1-4	INV. B03B5/28 B03B5/36 B08B3/12
15	<p>A CN 103 128 075 A (ZHANGJIAGANG BEIER MACH CO LTD) 5 June 2013 (2013-06-05) * the whole document *</p> <p>-----</p>	1	
20	<p>A CN 205 085 083 U (ZHEJIANG HUAFEI RECYCLING RESOURCES CO LTD) 16 March 2016 (2016-03-16) * the whole document *</p> <p>-----</p>	1	
25			
30			
35			
40			
45			
50	<p>The present search report has been drawn up for all claims</p>		
55	<p>1</p> <p>Place of search</p> <p>Munich</p> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>	<p>Date of completion of the search</p> <p>1 March 2024</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>	<p>Examiner</p> <p>Laurim, Jana</p>

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 23 18 5778

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-03-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	CN 108160606 A 15-06-2018 NONE			
15	CN 103128075 A 05-06-2013 NONE			
	CN 205085083 U 16-03-2016 NONE			
20				
25				
30				
35				
40				
45				
50				
55				

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82