

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
15 August 2024 (15.08.2024)



(10) International Publication Number
WO 2024/165698 A1

(51) International Patent Classification:
B65G 19/02 (2006.01) *B65G 47/14* (2006.01)

(21) International Application Number:
PCT/EP2024/053232

(22) International Filing Date:
08 February 2024 (08.02.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
23155688.7 08 February 2023 (08.02.2023) EP

(71) Applicant: **TOMRA SYSTEMS ASA** [NO/NO];
Drengsrudhagen 2, 1385 ASKER (NO).

(72) Inventors: **FURUHOLMEN, Erik**; Drengsrudhagen 2,
1385 ASKER (NO). **ONSTAD, Hans-Georg**; Tollefsloka
44, 1386 ASKER (NO). **PETTERSEN, Fredrik**; Smal-
gangen 20, 0188 OSLO (NO). **HOLMESLAND, Shelly**;
Årengveien 11A, 1394 NESBRU (NO). **KARIMI, Wais**;

Tors vei 194, 3472 BØDALEN (NO). **VERLO, Alexander**;
Solstadveien 7, 3085 HOLMESTRAND (NO). **LUNDE,**
Tom; Stasjonsveien 69, 1365 BLOMMENHOLM (NO).

(74) Agent: **AWA SWEDEN AB**; Box 11394, 404 28 GÖTE-
BORG (SE).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, CV,

(54) Title: A SINGULATION ARRANGEMENT FOR SINGULATION OF CONTAINERS

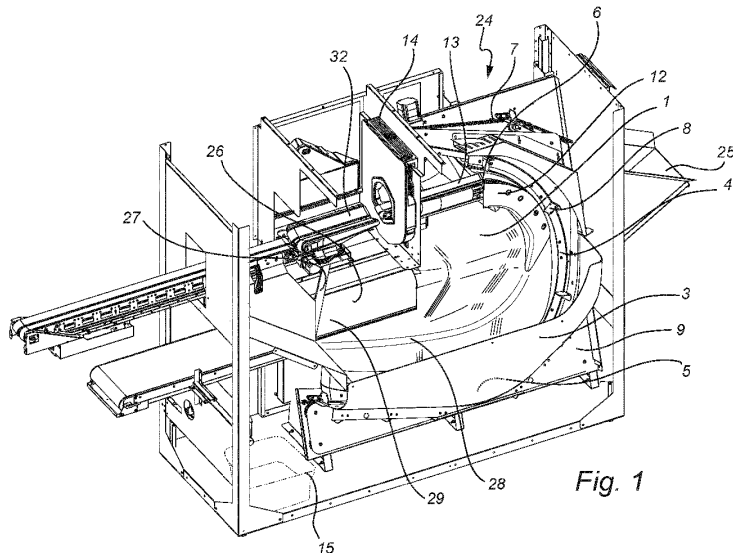


Fig. 1

(57) Abstract: The invention is related to a singulation arrangement (1) for singulation of containers (2), such as reusable or recyclable used food or beverage containers, received in bulk. The singulation arrangement (1) comprises a reservoir (3) adapted to collect used containers (2) in bulk, and a transport unit (4) adapted to transport containers (2) from an uptake area (5) of said reservoir (3) to a receiving area (6), said receiving area (6) being arranged at a higher altitude than said uptake area (5). The invention is also related to a container return system (24) configured to receive a bulk of containers (2).

[Continued on next page]

GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))