

Title (en)
HANDLING SYSTEM FOR LIGHTWEIGHT CONTAINERS INCLUDING BALLAST DISPENSER.

Title (de)
HANDHABUNGSSYSTEM FÜR LEICHTEN BEHÄLTER MIT ABGABEVORRICHTUNG FÜR BALLAST.

Title (fr)
SYSTEME DE MANUTENTION DE RECIPIENTS DE POIDS LEGER AVEC DISTRIBUTEUR DE LEST.

Publication
EP 0621844 A4 19950614 (EN)

Application
EP 92905917 A 19920124

Priority
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• US 9200628 W 19920124

Abstract (en)
[origin: CA2117420A1] Lightweight containers such as polyethylene terephthalate (PET) beverage bottles (20) are rendered stable for conveyance on a horizontal conveyor (40) by temporary addition of water ballast (44). The ballast (44) is drained during washing/rinsing steps and thus does not add to the permanent weight of the bottle. Ballast in the amount of about 2 to 10% of the bottle volume is sufficient to enable increased production line speed with fewer bottle jams due to the lightweight bottles falling over. The ballast may be added in an amount of 50 to 150 % of the empty container weight for a typical container, thus filling the bottle only 0.5 to 1.5 inches at the bottom. The bottles are arranged upright, for example at a depalletizer (30), and loaded with ballast from a reservoir or pressurized supply of water. The bottles can be loaded in a group and a plurality of valves (168) having valve bodies (166) on a movable common support open simultaneously. The ballast is removed at the bottle rinsing station, which inverts the bottles to drain the ballast as well as rinse water.

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B65B 3/04

IPC 8 full level
B08B 9/20 (2006.01); **B08B 9/44** (2006.01); **B65G 15/00** (2006.01); **B65G 15/28** (2006.01); **B65G 17/00** (2006.01)

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Citation (search report)
• [E] US 5159960 A 19921103 - PRINGLE FRANK G [US]
• [X] PATENT ABSTRACTS OF JAPAN vol. 15, no. 208 (M - 1117) 28 May 1991 (1991-05-28)
• See references of WO 9314975A1

Cited by
CN111788144A

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