

Title (en)
APPARATUS FOR LOADING BOTTOM-LOADING BASKET-STYLE CARRIER

Title (de)
VORRICHTUNG ZUM BODENSEITIGEN EINBRINGEN VON BEHÄLTERN IN KORBARTIGE TRAGBEHÄLTER

Title (fr)
APPAREIL DE MISE EN PLACE DE RECIPIENTS DANS DES STRUCTURES PORTEUSES DE TYPE PANIER SE CHARGEANT PAR LE FOND

Publication
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Application
EP 96913797 A 19960415

Priority

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- US 42111395 A 19950413
- US 45032395 A 19950525

Abstract (en)
[origin: WO9632322A1] An apparatus (10) for loading containers into basket-style bottom-loading carriers (3) has a container infeed mechanism; a carrier infeed supplier (30); a carrier feeder mechanism (50) for removing carriers from the carrier infeed supplier; a carrier timer-transport assembly (60 or 260) for receiving carriers (3) from the carrier infeed supplier and initiating transport of the carriers in synchronous parallel motion above the containers; a gripper (82) assembly for opening the carriers (3); a declination belt assembly (90) forming a pathway for receiving transversely extending bottom panels of said carriers and transporting said carriers downwardly over the groupings of containers; a seating assembling (120) for engaging tops of handles of carriers such that as the seating members rotate the bottommost seating member engages the respective tops of the handles of the carriers; and bottom-panel closure mechanisms (130, 140, 182) for placing the bottom panels together in locking relationship with respect to one another.

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Cited by
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US 9605267 W 19960415; AR 33617196 A 19960415; AR 33617296 A 19960415; AR 33617396 A 19960415; AT 96911779 T 19960415; AT 96912750 T 19960415; AT 96912761 T 19960415; AT 96912762 T 19960415; AT 96912786 T 19960415; AT 96913797 T 19960415; AU 5485796 A 19960415; AU 5545096 A 19960415; AU 5546196 A 19960415; AU 5546296 A 19960415; AU 5548196 A 19960415; AU 5664496 A 19960415; BR 9604939 A 19960415; BR 9604962 A 19960415; BR 9604963 A 19960415; BR 9604964 A 19960415; BR 9605000 A 19960415; CA 2218035 A 19960415; CA 2218041 A 19960415; CA 2218046 A 19960415; CA 2218065 A 19960415; CA 2218071 A 19960415; CN 96194417 A 19960415; CN 96194419 A 19960415; CN 96194420 A 19960415; CZ 322297 A 19960415; DE 69606629 T 19960415; DE 69606702 T 19960415; DE 69606704 T 19960415; DE 69622388 T 19960415; DE 69622549 T 19960415;

DE 69622699 T 19960415; DK 96911779 T 19960415; DK 96912750 T 19960415; DK 96912761 T 19960415; DK 96912762 T 19960415;
DK 96912786 T 19960415; DK 96913797 T 19960415; EP 96911779 A 19960415; EP 96912750 A 19960415; EP 96912761 A 19960415;
EP 96912762 A 19960415; EP 96912786 A 19960415; EP 96913797 A 19960415; ES 96911779 T 19960415; ES 96912750 T 19960415;
ES 96912761 T 19960415; ES 96912762 T 19960415; ES 96912786 T 19960415; ES 96913797 T 19960415; GR 20000400561 T 20000303;
GR 20000400896 T 20000412; GR 20000401063 T 20000505; HK 98109080 A 19980711; HU P9900893 A 19960415;
IL 11789796 A 19960414; IL 11789896 A 19960414; IL 11789996 A 19960414; JP 53125596 A 19960415; JP 53125996 A 19960415;
JP 53126096 A 19960415; JP 53126696 A 19960415; JP 53127196 A 19960415; KR 19970707151 A 19971010; KR 19970707152 A 19971010;
KR 19970707153 A 19971010; KR 19970707154 A 19971010; KR 19970707155 A 19971010; MX 9707467 A 19960415;
MX 9707468 A 19960415; MX 9707469 A 19960415; MX 9707470 A 19960415; MX 9707471 A 19960415; MY PI9601422 A 19960413;
NZ 30681596 A 19960415; PL 32276296 A 19960415; PT 96911779 T 19960415; PT 96912750 T 19960415; PT 96912761 T 19960415;
PT 96912762 T 19960415; PT 96912786 T 19960415; PT 96913797 T 19960415; TR 9701089 T 19960415; TW 85105530 A 19960510;
TW 85105531 A 19960510; TW 85106763 A 19960606; US 9605158 W 19960415; US 9605175 W 19960415; US 9605176 W 19960415;
US 9605221 W 19960415; US 9605233 W 19960415