

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局

(43) 国际公布日
2026 年 1 月 2 日 (02.01.2026)

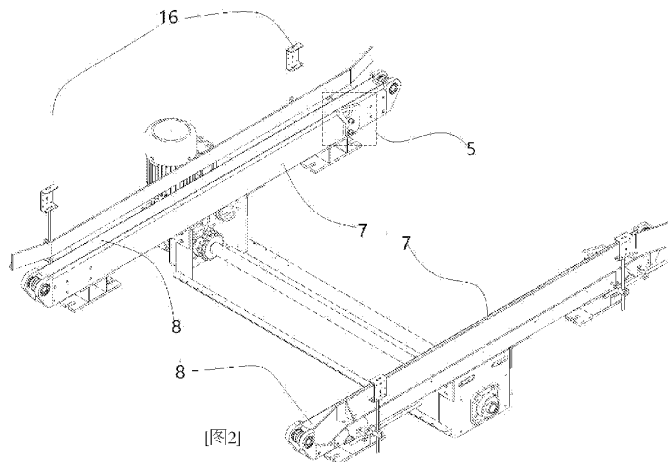


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WO 2026/001195 A1

- (51) 国际专利分类号:
B65G 1/04 (2006.01) **B65G 1/137** (2006.01) (WU, Yongqing); 中国上海市闵行区昆阳路 1508 号 2 幢 2 层 201111 (CN)。
- (21) 国际申请号: PCT/CN2025/088278 (74) 代理人: 无锡松禾知识产权代理事务所 (普通合伙) (WUXI SONGHE INTELLECTUAL PROPERTY FIRM (GENERAL PARTNERSHIP)); 中国江苏省无锡市新吴区金城东路 9 号 601 214000 (CN)。
- (22) 国际申请日: 2025 年 4 月 10 日 (10.04.2025)
- (25) 申请语言: 中文
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- (30) 优先权:
202411880720.1 2024 年 12 月 19 日 (19.12.2024) CN
- (71) 申请人: 上海智世机器人有限公司 (SHANGHAI ZS ROBOTICS CO., LTD.) [CN/CN]; 中国上海市闵行区昆阳路 1508 号 2 幢 2 层 201111 (CN)。
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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): 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,

(54) Title: CONVEYOR LINE LIMIT STOP DEVICE AND HANDLING METHOD FOR GOODS PALLET STORAGE AND RETRIEVAL

(54) 发明名称: 一种输送线限位停止装置及货物托盘出入库的搬运方法



[图2]

(57) Abstract: A conveyor line limit stop device and a handling method for goods pallet storage and retrieval. The conveyor line limit stop device comprises a three-dimensional rack (1), a conveying mechanism (2), a shuttle (3), and crisscross traveling rails (4), wherein the three-dimensional rack (1) and the conveying mechanism (2) are located above the traveling rails (4); the shuttle (3) movably travels on the traveling rails (4) and shuttles below the three-dimensional rack (1) and the conveying mechanism (2); limit stop devices (5) are provided at the end of the conveying mechanism (2) that is close to the three-dimensional rack (1); when pallets (9) are placed on conveying surfaces (17), if the conveying mechanism (2) performs forward conveying for storage, the limit stop devices (5) come into limiting contact with the pallets (9) carrying goods; and if conveyor belts (8) perform reverse conveying for retrieval, the pallets (9) press down the limit stop devices (5) to a position below the conveying surfaces (17). The conveyor line limit stop device enables the pallets (9) carrying goods of different weights or the pallets (9) of different materials to accurately stop at the same position each time,

[见续页]



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TD, TG)。

本国际公布:

- 包括国际检索报告(条约第21条(3))。
- 包括经修改的权利要求(条约第19条(1))。
- 根据申请人的请求, 在条约第21条(2)(a)所规定的
期限届满之前进行。

thereby greatly reducing the risk of goods falling during the handling process by the shuttle (3), and the conveyor line limit stop device
can be applied to most scenarios where goods in the pallets (9) are docked by means of a conveyor line.

(57) 摘要: 一种输送线限位停止装置及货物托盘出入库的搬运方法, 输送线限位停止装置包括立体货架(1)、
传送机构(2)、穿梭车(3)和纵横交错的行驶轨道(4), 立体货架(1)和传送机构(2)位于行驶轨道
(4)的上方, 穿梭车(3)活动行驶在行驶轨道(4)上, 并穿梭于立体货架(1)和传送机构(2)的下方; 传
送机构(2)靠近立体货架(1)的一端设置有限位停止装置(5); 当托盘(9)放置在传送面(17)上时, 若
传送机构(2)正向传送进行入库, 则限位停止装置(5)与承载着货物的托盘(9)限位接触; 若传送带(8)
反向传送进行出库, 则托盘(9)将限位停止装置(5)下压至传送面(17)下方。输送线限位停止装置能够使
承载着不同重量货物的托盘(9)或材料不同的托盘(9)每次均能够准确的停止在同一个位置, 大幅度降低穿
梭车(3)搬运过程中货物掉落的风险, 并且能够应用于大部分的通过运输线进行托盘(9)货物对接的场景。