

Title (en)
UNMANNED CRANE PROVIDED WITH AUTOMATIC UNHOOKING AND HOOKING APPARATUS, AND OPERATING METHOD THEREFOR

Title (de)
UNBEMANNTER KRAN MIT AUTOMATISCHER HAKENLÖSE- UND HAKENVORRICHTUNG UND BETRIEBSVERFAHREN DAFÜR

Title (fr)
GRUE SANS OPÉRATEUR ÉQUIPÉE D'UN APPAREIL DE DÉCROCHAGE ET D'ACCROCHAGE AUTOMATIQUE, ET SON PROCÉDÉ DE FONCTIONNEMENT

Publication
EP 4242161 A4 20240508 (EN)

Application
EP 20960685 A 20201215

Priority
• CN 202022557278 U 20201106
• CN 202011232610 A 20201106
• CN 2020136408 W 20201215

Abstract (en)
[origin: EP4242161A1] Disclosed is an unmanned crane provided with an automatic hooking-unhooking device and an operating method thereof. The unmanned crane comprises a grid guide frame trolley, a ground assistance frame, and a ground load transporting device. The grid guide frame trolley can perform lateral displacement along a bridge. The rigid guide frame trolley is connected to a hoisting mechanism that makes a load have no horizontal displacement in the process of lifting and lowering the load. An automatic hooking-unhooking device is disposed at the bottom end of the hoisting mechanism. The ground assistance frame is rigidly connected to the ground. The automatic hooking-unhooking device comprises a guide wheel, a first guide rail matched with the guide wheel is rigidly connected to the bottom of the guide frame trolley, and the ground assistance frame is provided with a second guide rail matched with the guide wheel. The automatic hooking-unhooking device of the hoisting mechanism, a rigid frame of the trolley and the ground assistance frame working in conjunction with each other can achieve the functions of automatically loading and unloading a load in the unmanned crane, such that no horizontal displacement of a whole system is generated during the process of lifting and lowering a spreader, and thus high reliability and safety are provided.

IPC 8 full level
B66C 13/08 (2006.01); **B66C 1/38** (2006.01); **B66C 9/00** (2006.01); **B66C 9/08** (2006.01); **B66C 17/06** (2006.01); **B66C 19/00** (2006.01)

CPC (source: EP)
B66C 1/38 (2013.01); **B66C 13/08** (2013.01); **B66C 17/06** (2013.01)

Citation (search report)
[XA] JP H1017114 A 19980120 - ISHIKAWAJIMA HARIMA HEAVY IND

Designated contracting state (EPC)
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 MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 4242161 A1 20230913; EP 4242161 A4 20240508; WO 2022095228 A1 20220512

DOCDB simple family (application)
EP 20960685 A 20201215; CN 2020136408 W 20201215