

Title (en)
LIFTING SYSTEM WITH THREE-WAY MOTION COMPENSATION FUNCTION

Title (de)
HUBSYSTEM MIT DREIWEGE-BEWEGUNGSKOMPENSATIONSFUNKTION

Title (fr)
SYSTÈME DE LEVAGE AVEC FONCTION DE COMPENSATION DE MOUVEMENT À TROIS VOIES

Publication
EP 4053068 B1 20240327 (EN)

Application
EP 20909257 A 20201214

Priority
• CN 201911394243 A 20191230
• CN 201922439338 U 20191230
• CN 2020136066 W 20201214

Abstract (en)
[origin: EP4053068A1] Disclosed is a lifting system with a three-way motion compensation function, including a main arm (1), a mobile cart I (5), a mobile cart II (2), a support II (3), a support I (4), a lifting mechanism (6), and a vessel body (7), where a front end of the main arm (1) is mounted at an upper end of the mobile cart I (5); a rear end of the main arm (1) is mounted at an upper end of the mobile cart II (2); a lower end of the mobile cart I (5) is mounted on the support I (4); a lower end of the mobile cart II (2) is mounted on the support II (3); the support I (3) and the support II (4) are separately fixed on the vessel body (7); rails I (11) are mounted on two sides of a bottom of the front end of the main arm (1); concave rails II (12) are mounted on two sides of the rear end of the main arm (1); the main arm (1) is driven to move front and back when the mobile cart I (5) and the mobile cart II (2) act synchronously; and the lifting mechanism (6) for driving a lifted object to move up and down is hinged to the front end of the main arm (1). The lifting system can perform a three-way motion compensation function, and can effectively avoid mechanical collision, position deviation, or the like caused by rolling, pitching, or heaving of the vessel body (7), thereby having high lifting efficiency, low comprehensive costs, and wide applicability.

IPC 8 full level
B66C 23/62 (2006.01); **B66C 9/08** (2006.01); **B66C 23/53** (2006.01); **B66C 23/80** (2006.01)

CPC (source: EP)
B66C 23/53 (2013.01); **B66C 23/62** (2013.01); **B66C 23/80** (2013.01)

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 4053068 A1 20220907; **EP 4053068 A4 20230104**; **EP 4053068 B1 20240327**; WO 2021135902 A1 20210708

DOCDB simple family (application)
EP 20909257 A 20201214; CN 2020136066 W 20201214