

Title (en)

LARGE MANIPULATOR WITH ARTICULATED MAST THAT CAN BE QUICKLY FOLDED AND UNFOLDED

Title (de)

GROSSMANIPULATOR MIT SCHNELL EIN- UND AUSFALTBAREM KNICKMAST

Title (fr)

MANIPULATEUR DE GRANDE TAILLE PRÉSENTANT UN MÂT ARTICULÉ RAPIDEMENT REPLIABLE ET DÉPLOYABLE

Publication

EP 3303732 A1 20180411 (DE)

Application

EP 16731808 A 20160530

Priority

- DE 102015108473 A 20150528
- EP 2016062183 W 20160530

Abstract (en)

[origin: WO2016189169A1] The invention relates to a large manipulator (1), in particular a truck-mounted concrete pump, with a mast pedestal (3), which is rotatable about a vertical axis by means of a rotary drive and which is arranged on a frame (2), an articulated mast (4) which comprises two or more mast arms (5, 6, 7, 8), wherein the mast arms (5, 6, 7, 8) are each pivotably movably connected via articulated joints to the respective adjacent mast pedestal (3) or mast arm (5, 6, 7, 8) by means of a pivot drive, a control unit controlling the drives for the mast movement, and a mast sensor system for detecting the position of at least one point of the articulated mast (4) or a pivot angle (φ_1 , φ_2 , φ_3 , φ_4) of at least one articulated joint. The large manipulator is characterized in that the control unit (17) is additionally designed to limit the speed of the mast movement based on the output signal of the mast sensor system. In addition, the invention relates to a method for controlling the movement of an articulated mast (4) of a large manipulator (1), in particular a truck-mounted concrete pump.

IPC 8 full level

E04G 21/04 (2006.01); **B66C 13/20** (2006.01); **B66C 13/46** (2006.01)

CPC (source: EP US)

B66C 13/20 (2013.01 - EP US); **B66C 13/46** (2013.01 - EP US); **E04G 21/04** (2013.01 - EP US); **E04G 21/0436** (2013.01 - EP US); **E04G 21/0445** (2013.01 - EP US); **E04G 21/0463** (2013.01 - EP US)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102015108473 A1 20161201; CN 107849856 A 20180327; CN 107849856 B 20200616; EP 3303732 A1 20180411; EP 3303732 B1 20240306; US 10625990 B2 20200421; US 2018162701 A1 20180614; WO 2016189169 A1 20161201

DOCDB simple family (application)

DE 102015108473 A 20150528; CN 201680041348 A 20160530; EP 16731808 A 20160530; EP 2016062183 W 20160530; US 201615577706 A 20160530