

Title (en)

METHOD AND SYSTEM FOR AVOIDING COLLISIONS BY CRANES

Title (de)

VERFAHREN UND SYSTEM ZUR VERMEIDUNG VON KOLLISIONEN BEI KRÄNEN

Title (fr)

PROCÉDÉ ET SYSTÈME POUR ÉVITER DES COLLISIONS PAR DES GRUES

Publication

EP 3455153 A1 20190320 (DE)

Application

EP 17734701 A 20170627

Priority

- DE 102016212123 A 20160704
- EP 2017065835 W 20170627

Abstract (en)

[origin: WO2018007203A1] The invention relates to a method and to a system for preventing a collision of a load of a crane (2) with an obstacle (2) and to a crane (2) having such a system, to a program for carrying out such a method, and to a computer-readable medium having such a program. The aim of the invention is to provide a solution for collision avoidance which meets a safety level. This aim is achieved by a solution, in which the load is moved along a trajectory (4), wherein a height profile is captured at least along the trajectory (4) by means of at least two sensors (5) for distance measurement, wherein signals of the sensors (5) are transmitted via at least two communication channels (7) to a controller (8) having at least two operating systems (9, 10), of which at least one has a safety program in a secure area, wherein an obstacle (2) is identified along the trajectory (4) by means of the height profile. The controller (8) also has a secure communications interface (13) for transmitting signals from the controller (8) to a crane control.

IPC 8 full level

B66C 15/04 (2006.01)

CPC (source: EP KR US)

B66C 13/16 (2013.01 - US); **B66C 13/18** (2013.01 - KR US); **B66C 13/46** (2013.01 - US); **B66C 15/045** (2013.01 - EP KR US); **B66C 19/007** (2013.01 - US)

Citation (search report)

See references of WO 2018007203A1

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)

WO 2018007203 A1 20180111; CN 109415190 A 20190301; CN 109415190 B 20210702; EP 3455153 A1 20190320; EP 3455153 B1 20200527; KR 102256546 B1 20210526; KR 20190025001 A 20190308; SG 11201811732P A 20190130; US 11167959 B2 20211109; US 2019308852 A1 20191010

DOCDB simple family (application)

EP 2017065835 W 20170627; CN 201780041684 A 20170627; EP 17734701 A 20170627; KR 20197003137 A 20170627; SG 11201811732P A 20170627; US 201716315106 A 20170627