

Title (en)

METHOD AND DEVICE TO CONTROL IN OPEN-LOOP THE SWAY OF PAYLOAD FOR SLEWING CRANES

Title (de)

VERFAHREN UND EINRICHTUNG ZUR OPEN-LOOP STEUERUNG DER SCHWINGUNG EINER NUTZLAST FÜR DREHKRÄNE

Title (fr)

Procédé et dispositif pour contrôler en boucle ouverte l'oscillation de la charge pour engin rotatif de levage

Publication

EP 2896590 A1 20150722 (EN)

Application

EP 14425148 A 20141128

Priority

IT RA20140001 A 20140116

Abstract (en)

Method and systems for controlling the swing of a suspended load by a rotary crane moving along two axes, trolley and slewing, that are moving independently or together, and independently or together to the movement of the load along a third axis, the vertical (hoisting) axis. The device (10, 11, 12) calculates the speed profiles of slewing and trolley axes using as input variables the length of the cable in which is suspended the load, the distance between the axis of rotation and the trolley position, the set constant acceleration of slewing and trolley axes, the air resistance forces acting on the payload and on the hoisting system, the damping of the rotation movement due to the structure's elasticity of the hoisting system.

IPC 8 full level

B66C 13/06 (2006.01)

CPC (source: EP)

B66C 13/063 (2013.01)

Citation (applicant)

- US 5908122 A 19990601 - ROBINETT RUSH D [US], et al
- US 2011218714 A1 20110908 - STANTCHEV PENTCHO [FR], et al

Citation (search report)

- [A] WO 9745357 A1 19971204 - SIEMENS AG [DE], et al
- [AD] US 2011218714 A1 20110908 - STANTCHEV PENTCHO [FR], et al
- [A] DE 19519368 A1 19961128 - BILFINGER BERGER BAU [DE]
- [AD] US 5908122 A 19990601 - ROBINETT RUSH D [US], et al

Cited by

CN115709914A; CN112499498A; CN113896111A

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

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