

Title (en)
CRANE WITH ARTICULATED ARM

Title (de)
KRAN MIT GELENKARM

Title (fr)
GRUE AVEC BRAS ARTICULÉ

Publication
EP 3556710 B1 20230111 (EN)

Application
EP 19153039 A 20190122

Priority
IT 201800004717 A 20180419

Abstract (en)
[origin: EP3556710A1] An articulated arm (101) comprises:- a plurality of bodies consecutively connected in order to form an open kinematic chain with an end-effector (105), having a plurality of translative and/or rotative degrees of freedom and a plurality of actuators for moving said bodies;- one or more first sensors associated to said bodies, adapted to supply signals indicative of linear or angular positions of the bodies of the kinematic chain in order to enable to determine a theoretical height of the end-effector (105);- at least one second absolute angular sensor adapted to measure an absolute angle of the body of the kinematic chain where the end-effector (105) is located, and to provide a signal indicative of the same;- a control unit operatively connected to said actuators, to said one or more first sensors, and to said at least one second absolute angular sensor, configured to:- determine said theoretical height of the end-effector (105) based on the signals from the one or more first sensors;- estimate a height variation of the end-effector (105) between the theoretical height and an effective height determined by loads applied to the arm based on signals from the one or more first sensors and from the at least one second absolute angular sensor;- commanding the actuators to reduce the estimated height variation of the end-effector (105).

IPC 8 full level
B66C 13/04 (2006.01); **B66C 13/18** (2006.01); **B66C 13/40** (2006.01); **B66C 13/46** (2006.01)

CPC (source: EP)
B66C 13/04 (2013.01); **B66C 13/18** (2013.01); **B66C 13/40** (2013.01); **B66C 13/46** (2013.01)

Citation (examination)
EP 3239092 A1 20171101 - CARGOTEC PATENTER AB [SE]

Cited by
EP4389678A1

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)
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