

Title (en)

DEVICE AND METHOD FOR CONTROLLING A CRANE ROTATIONAL GEAR AND CRANE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR STEUERUNG EINES KRANDREHWERKS SOWIE KRAN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE COMMANDE D'UN MÉCANISME ROTATIF DE GRUE, AINSI QUE GRUE

Publication

EP 4053065 B1 20230628 (DE)

Application

EP 22155581 A 20220208

Priority

DE 102021103488 A 20210215

Abstract (en)

[origin: US2022340396A1] The present disclosure relates to an apparatus and to a method for controlling a crane slewing gear. The apparatus comprises a hydraulic motor for driving the slewing gear and for braking the slewing gear from a rotational movement. The slewing gear is kept stationary via a holding brake. A hydraulic brake circuit for controlling the holding brake, a load sensing device for measuring a load instantaneously taken up by the crane, and an orientation sensing device for measuring an instantaneous orientation of the crane and/or of at least one crane component are furthermore provided. In accordance with the disclosure, a hydraulic limitation circuit is provided by means of which a hydraulic pressure applied to the motor can be limited to a specific limit value. A control unit is furthermore provided that determines a maximum permitted torque and/or a parameter derived therefrom for a current slewing gear movement.

IPC 8 full level

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CPC (source: EP US)

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Citation (opposition)

Opponent : Manitowoc Crane Group Germany GmbH

- DE 102011122225 A1 20130620 - TEREX CRANES GERMANY GMBH [DE]
- DE 69111181 T2 19951130 - KOBE STEEL LTD [JP]
- DE 69025471 T2 19960822 - KOBE STEEL LTD [JP]
- "Das grosse Buch der Fahrzeugkrane", 1 January 2001, KM VERLAGS GMBH, ISBN: 978-3-934518-00-1, article BECKER RUDOLF: "3.11. Berechnungsgrundsätze/Qualitätssicherung", pages: 60 - 61, XP093180270

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