Title (en)

CRANE, AS WELL AS PROCESS FOR MONITORING THE OVERLOAD PROTECTION OF SUCH A CRANE

Title (de)

KRAN SOWIE VERFAHREN ZUM ÜBERWACHEN DER ÜBERLASTSICHERUNG EINES SOLCHEN KRANS

Title (fr)

GRUE AINSI QUE PROCÉDÉ POUR SURVEILLER LA PROTECTION CONTRE LA SURCHARGE D'UNE TELLE GRUE

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Application

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Abstract (en)

[origin: WO2016128122A1] The invention relates to a crane having a boom (3) on which at least one load receiving means (9, 11) is mounted in such a manner that it can be raised and lowered. An overload protection device (14) has detection means (15, 16) for detecting the outreach and the load on the at least one load receiving means (9, 11), a monitoring device (19) for monitoring the overload protection device (14) being provided and having determination means (22) for determining a tensioning force holding the boom (3) and/or the tensioning force induced by a guy cable (5). The monitoring device (19) determines, online during operation of the crane, a tensioning torque (FN x IN) from the determined tensioning force (FN), a lifting torque (FG+S x lG+ S +F*G+S x lFJ) from the detected outreach (lG + S,I FJ) and the detected load (FG+ S, F*G+ S), and a dead torque { FA x lA} is determined using stored crane data, the sum from lifting torque and dead torque being matched to the tensioning torque and being output as an error and/or shut-off signal if the deviation of the tensioning torque from the mentioned sum of lifting torque and dead torque exceeds a tolerance threshold. The invention further relates to a method for monitoring the overload protection of the crane.

IPC 8 full level

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