

Title (en)

Crank press with dual protection mechanism and control method thereof

Title (de)

Kurbelpresse mit zweifachem Schutzmechanismus und Steuerungsverfahren dafür

Title (fr)

Presse de manivelle à double mécanisme de protection et son procédé de commande

Publication

EP 2703151 A1 20140305 (EN)

Application

EP 12182766 A 20120903

Priority

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Abstract (en)

A crank press (100) includes an encoder (143) measuring an angle value of a servo motor (142), a strain detector module (15) generating a converted load value associated with deformation of a machine body (11), a memory (16) storing at least one relation between an angle value and each of an upper torsion limit and an upper load limit, and a controller (13) calculating a torque command value based on a position command, reading the upper torsion limit corresponding to the measured angle value, determining whether the torque command value exceeds the upper torsion limit, outputting the torque command value when negative, and outputting the upper torsion limit when affirmative. The controller (13) further stops the servo motor (142) when the converted load value exceeds the upper load limit corresponding to the measured angle value.

IPC 8 full level

B30B 15/14 (2006.01); **B30B 15/00** (2006.01); **B30B 15/28** (2006.01)

CPC (source: EP)

B30B 15/0094 (2013.01); **B30B 15/148** (2013.01); **B30B 15/28** (2013.01)

Citation (search report)

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- [I] US 2012111207 A1 20120510 - KUBOE KAZUHIRO [JP]
- [X] JP 2004174562 A 20040624 - KOMATSU MFG CO LTD, et al
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CN110239140A; JP2018167328A; JP2016043359A; CN106536177A; CN113946137A; US10576705B2; WO2016027645A1

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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