

Title (en)

METHOD AND DEVICE FOR ACTUATING A HYDRAULIC EXPANSION CHUCK DEVICE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM BETÄTIGEN EINER HYDRO-DEHNSPANNEINRICHTUNG

Title (fr)

PROCÉDÉ ET DISPOSITIF D'ACTIONNEMENT D'UN APPAREIL DE SERRAGE EXPANSIBLE HYDRAULIQUE

Publication

EP 3580000 A1 20191218 (DE)

Application

EP 18705851 A 20180206

Priority

- DE 102017102380 A 20170207
- DE 102017114536 A 20170629
- EP 2018052940 W 20180206

Abstract (en)

[origin: WO2018146092A1] The invention relates to a method for actuating a hydraulic expansion chuck device (3) having a main-body arrangement (4) in which a pressure-chamber system which is fillable with hydraulic medium is formed, said pressure-chamber system comprising a pressure chamber (15) having a wall (18), which defines a clamping face (19) on a side facing away from the pressure chamber (15), and a threaded bore (8) that has been introduced into the main-body arrangement (4) from the outside and is connected to the pressure chamber (15) via connecting ducts, wherein a clamping bolt (9) has been screwed into the threaded bore (8), said clamping bolt (9) being axially adjusted as a result of being screwed into the threaded bore (8), such that the hydraulic medium is pushed in the direction of the pressure chamber (15) and the wall (18) is elastically deformed in order to clamp a tool (20) or workpiece, wherein, in the method, the clamping bolt (9) is turned by means of a turning tool (22), the torque applied to the hydraulic expansion chuck device (3) is supported in particular by the hydraulic expansion chuck device (3) being fixed in a stationary holder (2), values indicating the hydraulic-medium pressure are measured by means of a measuring device (23) at predefined, equal measuring intervals and/or continuously during the turning of the clamping bolt (9), a clamped state of the hydraulic expansion chuck device (3) is determined by evaluating the measured values indicating the hydraulic-medium pressure by means of an evaluation and control device (25), and the determined clamped state of the hydraulic expansion chuck device (3) is signalled to a user by means of a signalling device (26). The invention also relates to a device (1) for actuating a hydraulic expansion chuck device (3).

IPC 8 full level

B23B 31/30 (2006.01); **B23Q 17/00** (2006.01)

CPC (source: EP)

B23B 31/302 (2013.01); **B23B 31/305** (2013.01); **B23Q 17/005** (2013.01); **G01L 5/24** (2013.01); **B23B 2260/078** (2013.01)

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

DOCDB simple family (publication)

DE 102017114536 B3 20180705; EP 3580000 A1 20191218; JP 2020506076 A 20200227; JP 7109456 B2 20220729; WO 2018146092 A1 20180816

DOCDB simple family (application)

DE 102017114536 A 20170629; EP 18705851 A 20180206; EP 2018052940 W 20180206; JP 2019542400 A 20180206