

Title (en)  
Locking device of the articulated lever type

Title (de)  
Spanneinrichtung mit einem Gelenkhebel

Title (fr)  
Dispositif de serrage à leviers articulés

Publication  
**EP 1524081 A2 20050420 (EN)**

Application  
**EP 04024245 A 20041012**

Priority  
IT TO20030814 A 20031016

Abstract (en)  
A control unit for controlling the angular end-of-stroke positions of the clamping arm of a locking device of the articulated lever type, in which the arm (12) is fastened on a rotatable shaft (16) and is controlled into rotation through a toggle joint unit (22) by the axial sliding of a control rod (20), comprises a support member (5) for supporting a pair of sensors (48, 50) which sense the passing of reference means (32, 34) connected to the rod (20) in order to control its stop when the positions of angular end-of-stroke of the arm (12) are reached. The support member (5) can be fastened to the body (2) of the device at an opening (5a) of the rear zone (3) of the device (1). The sensors (48, 50) are fixed to the support member (5) and the reference means comprise two appendages (32, 34) separated and connected to the rod (20), at least one (34) of which is associated to adjustable fastening means (28, 36, 38, 40) in order to allow to fasten it in one of a plurality of positions along the rod (20).

IPC 1-7  
**B25B 5/12**; **B25B 5/16**

IPC 8 full level  
**B25B 5/12** (2006.01); **B25B 5/16** (2006.01)

CPC (source: EP)  
**B25B 5/122** (2013.01); **B25B 5/16** (2013.01)

Citation (applicant)  
• EP 0803331 A1 19971029 - TUENKERS MASCHINENBAU GMBH [DE]  
• DE 20203790 U1 20020718 - TUENKERS MASCHINENBAU GMBH [DE]

Cited by  
EP1878539A1; CN106660194A; CN102753309A; EP3299125A1; CN104271317A; CN103567913A; EP2692482A3; EP3575035A1; US9958042B2; WO2016173653A1; WO2011060755A1; US9849568B2; WO2016162074A1; DE202016008355U1; EP3078453A1; US10625382B2; WO2013163989A1; TWI635935B; EP2844431B1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1524081 A2 20050420**; **EP 1524081 A3 20090520**; **EP 1524081 B1 20130522**; ES 2424351 T3 20131001; IT TO20030814 A1 20050417; PL 1524081 T3 20131031

DOCDB simple family (application)  
**EP 04024245 A 20041012**; ES 04024245 T 20041012; IT TO20030814 A 20031016; PL 04024245 T 20041012