

Title (en)

METHOD FOR GRINDING WORKPIECES, IN PARTICULAR FOR CENTRING GRINDING OF WORKPIECES SUCH AS OPTICAL LENSES

Title (de)

VERFAHREN ZUM SCHLEIFEN VON WERKSTÜCKEN, INSBESONDERE ZUM ZENTRIERENDEN SCHLEIFEN VON WERKSTÜCKEN WIE  
OPTISCHEN LINSEN

Title (fr)

PROCÉDÉ DE POLISSAGE DE PIÈCES, NOTAMMENT DE POLISSAGE AVEC CENTRAGE DE PIÈCES TELLES QUE DES LENTILLES  
OPTIQUES

Publication

**EP 2852472 B1 20160629 (DE)**

Application

**EP 13723403 A 20130425**

Priority

- DE 102012010004 A 20120522
- EP 2013001240 W 20130425

Abstract (en)

[origin: WO2013174468A2] The invention relates in particular to a method for centring grinding of workpieces such as optical lenses by means of a grinding tool using an actuator (34) for generating a relative advancing movement between the grinding tool and the workpiece, wherein the actuator is integrated in a current regulator (48) for an actuator current which determines an advancing force of the actuator in a position control loop (40) which is run through using a predetermined control cycle. In the method, for each control cycle: (i) a desired direction of movement ( $R_{soll}(n)$ ) of the advancing movement and an actual direction of movement ( $R_{ist}(n)$ ) of the advancing movement are ascertained; then (ii) the ascertained actual and desired directions of movement are compared to one another; and finally, (iii) when the comparison results in a deviation between the actual and desired directions of movement, a predetermined current limit ( $I_{Sollmax}$ ) for the actuator current emitted via the current regulator is decreased in a defined manner in order to reduce the advancing force of the actuator. As a result the advancing movement and material machining can be carried out quickly and efficiently without overstressing the tool or workpiece.

IPC 8 full level

**B24B 9/14** (2006.01); **B24B 9/06** (2006.01); **B24B 9/08** (2006.01)

CPC (source: CN EP US)

**B24B 9/065** (2013.01 - CN EP US); **B24B 9/085** (2013.01 - CN EP US); **B24B 9/148** (2013.01 - CN EP US)

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

DOCDB simple family (publication)

**DE 102012010004 A1 20131128**; CN 104321163 A 20150128; CN 104321163 B 20160525; EP 2852472 A2 20150401;  
EP 2852472 B1 20160629; HK 1202489 A1 20151002; US 2015093967 A1 20150402; US 9278421 B2 20160308; WO 2013174468 A2 20131128;  
WO 2013174468 A3 20140807

DOCDB simple family (application)

**DE 102012010004 A 20120522**; CN 201380026654 A 20130425; EP 13723403 A 20130425; EP 2013001240 W 20130425;  
HK 15102871 A 20150320; US 201314402374 A 20130425