

Title (en)

METHOD FOR RELIEF-GRINDING THE CUTTING TEETH OF TAPS, THREAD FORMERS, AND SIMILAR TOOLS, AND GRINDING MACHINE FOR CARRYING OUT SAID METHOD

Title (de)

VERFAHREN ZUM HINTERSCHLEIFEN DER SCHNEIDZÄHNE VON GEWINDEBOHRERN, GEWINDEFORMERN UND ÄHNLICHEN WERKZEUGEN, UND SCHLEIFMASCHINE ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ POUR DÉTALONNER À LA MEULE LES DENTS COUPANTES DE TARAUDS, D'OUTILS À FORMER LES FILETS ET D'OUTILS ANALOGUES, ET MEULEUSE POUR LA MISE EN OEUVRE DUDIT PROCÉDÉ

Publication

EP 1991392 A1 20081119 (DE)

Application

EP 07722980 A 20070228

Priority

- EP 2007001728 W 20070228
- DE 102006009986 A 20060303

Abstract (en)

[origin: WO2007101593A1] In prior art, an additional radial inward movement that is performed in accordance with a rotating cam disk is imparted on the grinding disk in order to relief-grind the cutting teeth and the chamfer of taps and the cutting teeth of thread formers. The invention relates to a cam disk (11) which can be rotated about an axis A and is provided with a control cam (12). Said control cam (12) forms a group of curves according to a large number of possible undercut contours on the grinding teeth of the tap or thread former, which are to be relief-ground. In order to obtain a specific undercut contour on a cutting tooth, a limited angle of rotation α is selected from the control cam (12). Said area is mechanically, optically, or electronically scanned by means of a scanning device (13). To this avail, the cam disk (11) performs an oscillating rotary movement only above the selected section of the control cam (12) (arrow indicating the direction of rotation 15). Relief-grinding of the cutting tooth is completed once a fore-and-aft movement has been performed, and the grinding disk returns to the starting position thereof. The result of the scan is transmitted to an electronic control device via a signal line (14).

IPC 8 full level

B23Q 35/10 (2006.01); **B24B 3/22** (2006.01); **B24B 17/02** (2006.01)

CPC (source: EP US)

B24B 3/022 (2013.01 - EP US); **B24B 3/22** (2013.01 - EP US); **B24B 17/025** (2013.01 - EP US)

Citation (search report)

See references of WO 2007101593A1

Designated contracting state (EPC)

CZ DE GB IT

DOCDB simple family (publication)

DE 102006009986 A1 20070913; DE 102006009986 B4 20100401; CN 101500748 A 20090805; CN 101500748 B 20110713;
DE 502007003728 D1 20100624; EP 1991392 A1 20081119; EP 1991392 B1 20100512; JP 2009528177 A 20090806;
JP 5237834 B2 20130717; RU 2008139285 A 20100410; RU 2397059 C2 20100820; US 2009104854 A1 20090423; US 8419504 B2 20130416;
WO 2007101593 A1 20070913

DOCDB simple family (application)

DE 102006009986 A 20060303; CN 200780007640 A 20070228; DE 502007003728 T 20070228; EP 07722980 A 20070228;
EP 2007001728 W 20070228; JP 2008557636 A 20070228; RU 2008139285 A 20070228; US 22473107 A 20070228