

Title (en)
MACHINE TOOL, WORKPIECE MACHINING METHOD AND USE IN A MACHINE TOOL OR IN A WORKPIECE MACHINING METHOD

Title (de)
WERKZEUGMASCHINE, WERKSTÜCKBEARBEITUNGSVERFAHREN, SOWIE ZUR VERWENDUNG IN EINER WERKZEUGMASCHINE ODER IN EINEM WERKSTÜCKBEARBEITUNGSVERFAHREN

Title (fr)
MACHINE-OUTIL, PROCÉDÉ D'USINAGE DE PIÈCE, ET OUTIL À UTILISER DANS UNE MACHINE-OUTIL OU UN PROCÉDÉ D'USINAGE DE PIÈCE

Publication
EP 2720820 A1 20140423 (DE)

Application
EP 12727380 A 20120614

Priority
• DE 102011077568 A 20110615
• EP 2012061345 W 20120614

Abstract (en)
[origin: WO2012172014A1] The invention relates to a method for machining a workpiece using a tool, wherein the tool engages with the workpiece and a cutting motion is induced between the two. A first relative vibration motion superimposed on the cutting motion between the workpiece and the tool is induced in that one or more characteristic values of the first vibration motion and one or more characteristic values of the cutting motion are adjusted with respect to one another. The superimposed vibration motion can also be induced such that surface regions of the workpiece that can be differentiated arise.

IPC 8 full level
B23B 29/12 (2006.01); **B23B 27/00** (2006.01); **B23B 37/00** (2006.01); **B23B 51/00** (2006.01); **B23C 3/00** (2006.01); **B23C 5/02** (2006.01); **B23D 13/00** (2006.01); **B23Q 1/34** (2006.01)

CPC (source: CN EP US)
B23B 1/00 (2013.01 - US); **B23B 29/125** (2013.01 - CN EP US); **B23B 37/00** (2013.01 - CN EP US); **B23C 3/00** (2013.01 - CN EP US); **B23P 25/00** (2013.01 - CN EP US); **B23Q 5/54** (2013.01 - US); **B23B 2260/108** (2013.01 - CN EP US); **Y10T 29/49995** (2015.01 - EP US); **Y10T 29/54** (2015.01 - EP US); **Y10T 82/10** (2015.01 - EP US); **Y10T 407/28** (2015.01 - EP US)

Citation (search report)
See references of WO 2012172014A1

Citation (examination)
• DE 102010048638 A1 20120119 - SAUER ULTRASONIC GMBH [DE]
• US 2010086369 A1 20100408 - SUBRAMANIAN SUNDARESA V [CA]
• MANFRED WECK ET AL: "Dynamisches Maschinenverhalten bei Zerspaltung mit definierter Schneide", 31 December 2006, WERKZEUGMASCHINEN - MESSTECHNISCHE UNTERSUCHUNG UND BEURTEILUNG, DYNAMISCHE STABILITÄT; [VDI-BUCH], SPRINGER, BERLIN HEIDELBERG, PAGE(S) 245 - 254, ISBN: 978-3-540-22505-8, XP002683422

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 102011077568 A1 20121220; **DE 102011077568 B4 20231207**; CN 103635275 A 20140312; CN 103635275 B 20161005; EP 2720820 A1 20140423; JP 2014523348 A 20140911; US 2014216216 A1 20140807; US 9707655 B2 20170718; WO 2012172014 A1 20121220; WO 2012172014 A9 20130221

DOCDB simple family (application)
DE 102011077568 A 20110615; CN 201280028656 A 20120614; EP 12727380 A 20120614; EP 2012061345 W 20120614; JP 2014515193 A 20120614; US 201214125397 A 20120614