

Title (en)

METHOD AND SYSTEM FOR CONTROLLING AN ULTRASONIC GENERATOR OF A MACHINE TOOL FOR MACHINING A WORKPIECE

Title (de)

VERFAHREN UND SYSTEM ZUM STEUERN EINES ULTRASCHALLGENERATORS EINER WERKZEUGMASCHINE ZUR BEARBEITUNG EINES WERKSTÜCKS

Title (fr)

PROCÉDÉ ET SYSTÈME DE COMMANDE D'UN GÉNÉRATEUR D'ULTRASONS D'UNE MACHINE-OUTIL POUR L'USINAGE D'UNE PIÈCE

Publication

EP 4100174 A1 20221214 (DE)

Application

EP 21703020 A 20210202

Priority

- DE 102020201540 A 20200207
- EP 2021052407 W 20210202

Abstract (en)

[origin: WO2021156239A1] The invention relates to a system and a method for controlling an ultrasonic generator of a machine tool for generating ultrasonic waves for machining a workpiece. According to the invention, a determined phase offset of the ultrasonic waves is analysed on the basis of the frequency, and, on the basis of the analysis, a control algorithm for controlling the frequency of the ultrasonic waves generated by the ultrasonic generator is determined.

IPC 8 full level

B06B 1/02 (2006.01); **B23B 37/00** (2006.01); **B26D 7/08** (2006.01)

CPC (source: EP KR US)

B01J 19/10 (2013.01 - US); **B06B 1/0253** (2013.01 - EP KR); **B06B 1/0269** (2013.01 - EP KR US); **B23Q 1/00** (2013.01 - EP); **B23Q 1/0009** (2013.01 - KR); **B06B 1/0284** (2013.01 - 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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102020201540 A1 20210812; CN 115052690 A 20220913; EP 4100174 A1 20221214; JP 2023513177 A 20230330; JP 7490789 B2 20240527; KR 20220134637 A 20221005; US 2023050109 A1 20230216; WO 2021156239 A1 20210812

DOCDB simple family (application)

DE 102020201540 A 20200207; CN 202180013486 A 20210202; EP 2021052407 W 20210202; EP 21703020 A 20210202; JP 2022547852 A 20210202; KR 20227030468 A 20210202; US 202117798004 A 20210202