

Title (en)
ULTRASONIC MACHINING APPARATUS

Title (de)
ULTRASCHALLBEARBEITUNGSVORRICHTUNG

Title (fr)
APPAREIL D'USINAGE PAR ULTRASONS

Publication
EP 3632615 A4 20210324 (EN)

Application
EP 18806610 A 20180523

Priority
• JP 2017103891 A 20170525
• JP 2018019802 W 20180523

Abstract (en)
[origin: EP3632615A1] Provided is an ultrasonic machining apparatus enabling improvement of precision of micromachining of a workpiece. An ultrasonic machining apparatus 10 includes a base 12, a stage 14 arranged with the base 12 as a base, and a support column 16. The ultrasonic machining apparatus 10 further includes an ultrasonic unit 18 configured to generate micro-vibration in directions along the support column 16, and a holder 20 that supports the ultrasonic unit 18 along the support column 16. The holder 20 includes guide rollers 22 configured to guide the ultrasonic unit 18 such that the ultrasonic unit 18 vibrates along an upright axis of the support column 16. At least one guide roller (e.g., a guide roller 22c) of the guide rollers 22 is provided with a biasing device 36 that generates a biasing force toward an axial center of the ultrasonic unit 18.

IPC 8 full level
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CPC (source: EP)
B24B 1/04 (2013.01); **B24B 35/00** (2013.01); **B24B 37/00** (2013.01)

Citation (search report)
• [AD] JP 2014014826 A 20140130 - NIFCO INC
• [A] WO 2005049255 A1 20050602 - OHNISHI KAZUMASA [JP]
• See references of WO 2018216720A1

Designated contracting state (EPC)
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DOCDB simple family (application)
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