

Title (en)
MACHINE TOOL HAVING A FINE MACHINING SPINDLE

Title (de)
WERKZEUGMASCHINE MIT EINER FEINBEARBEITUNGSSPINDEL

Title (fr)
MACHINE-OUTIL AVEC UNE BROCHE D'USINAGE DE PRÉCISION

Publication
EP 3344416 A2 20180711 (DE)

Application
EP 16760677 A 20160824

Priority
• DE 102015114727 A 20150903
• EP 2016069952 W 20160824

Abstract (en)
[origin: WO2017036876A2] A machine tool (19) having at least one fine machining spindle (41), wherein the fine machining spindle (41) has a spindle shaft (50) which can rotate about an axis of rotation (D) and is rotatably mounted on a spindle housing (110) by means of a pivot bearing assembly (90), wherein a tool holder (46) for holding a machining tool (44) is provided at a free longitudinal end region (51) of the spindle shaft (50) and wherein the spindle shaft (50) can be rotatably driven by a spindle motor (150) so that a workpiece (W) can be machined, in particular drilled, by means of the machining tool (44). According to the invention, the spindle motor (150) is in the form of a direct drive for the spindle shaft (50), the spindle shaft (50) being connected to a rotor (151) of the spindle motor (150) for conjoint rotation and the rotor (151) being provided in a stator (152) of the spindle motor (150) which is connected to the spindle housing (110) for conjoint rotation, and the spindle motor (150) is provided next to the pivot bearing assembly (90) with regard to the axis of rotation (D).

IPC 8 full level
B23Q 1/70 (2006.01); **B23B 29/034** (2006.01)

CPC (source: EP)
B23B 29/03446 (2013.01); **B23B 39/161** (2013.01); **B23Q 1/70** (2013.01); **B23Q 11/1015** (2013.01); **B23Q 2039/006** (2013.01)

Cited by
US11757330B2; US11437900B2

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

DOCDB simple family (publication)
WO 2017036876 A2 20170309; WO 2017036876 A3 20170427; DE 102015114727 A1 20170309; EP 3344416 A2 20180711

DOCDB simple family (application)
EP 2016069952 W 20160824; DE 102015114727 A 20150903; EP 16760677 A 20160824