

Title (en)
TOOL HOLDER SPINDLE

Title (de)
WERKZEUGHALTERSPINDEL

Title (fr)
BROCHE DE PORTE-OUTIL

Publication
EP 2015884 A1 20090121 (EN)

Application
EP 07732694 A 20070508

Priority
• GB 2007001665 W 20070508
• GB 0609180 A 20060509

Abstract (en)
[origin: WO2007129073A1] A tool holder spindle (1) comprising a shaft (4), a spindle body (2) comprising at least one bearing (3) within which the shaft (4) is journaled for rotation relative to the spindle body (2), a tool holder (5) for holding a tool, and an axially moveable actuator portion (6) disposed within the shaft for actuating the tool holder. The tool holder (5) being mounted within the shaft (4) and comprising: a tool receiving portion (B) having at least one deformable tool gripping portion (55); and at least one wedge portion (58) arranged to act on the deformable tool gripping portion (55) and arranged for axial movement relative to the tool receiving portion under action of the axially moveable actuator portion (6), wherein axial movement of the actuator portion (6) in a first direction causes axial movement, relative to the tool receiving portion (B), of the wedge portion (58) in a first direction so deforming the tool gripping portion inwards towards the axis of the spindle for gripping a received tool.

IPC 8 full level
B23B 31/117 (2006.01); **B23B 31/20** (2006.01); **B23B 31/26** (2006.01); **B23Q 1/70** (2006.01)

CPC (source: EP US)
B23B 31/117 (2013.01 - EP); **B23B 31/2073** (2021.01 - EP US); **B23B 31/265** (2013.01 - EP); **B23B 2260/146** (2013.01 - EP)

Citation (search report)
See references of WO 2007129073A1

Citation (examination)
WO 2007073796 A1 20070705 - SCHUNK GMBH & CO KG [DE], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
WO 2007129073 A1 20071115; EP 2015884 A1 20090121; GB 0609180 D0 20060621; JP 2009536103 A 20091008; JP 5220727 B2 20130626; TW 200808472 A 20080216

DOCDB simple family (application)
GB 2007001665 W 20070508; EP 07732694 A 20070508; GB 0609180 A 20060509; JP 2009508472 A 20070508; TW 96116248 A 20070508