

Title (en)
METHOD AND SYSTEM FOR GRINDING A ROTATIONALLY SYMMETRIC MACHINE PART COMPRISING A LONGITUDINAL BOREHOLE

Title (de)
VERFAHREN UND SYSTEM ZUM SCHLEIFEN EINES MIT EINER LÄNGSBOHRUNG VERSEHENEN ROTATIONSSYMMETRISCHEN MASCHINENBAUTEILS

Title (fr)
PROCEDE ET SYSTEME DE POLISSAGE D'UN PIECE DE MACHINE A SYMETRIE DE REVOLUTION COMPRENANT UN ALESAGE LONGITUDINAL

Publication
EP 1526946 A1 20050504 (DE)

Application
EP 03784116 A 20030730

Priority
• DE 10235808 A 20020805
• EP 0308437 W 20030730

Abstract (en)
[origin: WO2004014606A1] Disclosed is a machine part (5) with a conical effective surface, which is machined by means of a device comprising a machine bed (1), a longitudinally movable grinding bench (7), and a workpiece spindle head (2) that clamps the machine part (5) by means of clamping jaws (4) via a chuck (3). The conical effective surface of the machine part (5) is ground by means of a first grinding disk (14) in a vertical grinding mode by longitudinally moving the grinding bench (7) in the direction of the longitudinal axis (6). The associated grinding spindle head (10) is provided with a first grinding spindle (12) for the first grinding disk (14) and a second grinding spindle (13) for a second grinding disk (16) that is fixed to a grinding arbor (15). The grinding spindle head (10) is fixed to a grinding spindle carriage (9) so as to be pivotable around a vertical shaft (11), said grinding spindle carriage (9) being movable in the direction of the x-axis via a displacement motor (8). B indicates the swiveling direction of the grinding spindle head (10) while X and Z represent the common axes referred to in CNC technology. The first grinding disk (14) can be driven out of the area of the machine part while the second grinding disk (16) can be made to act upon the machine part (5) in order to internally grind a longitudinal borehole.

IPC 1-7
B24B 5/12; **B24B 5/14**

IPC 8 full level
B24B 5/12 (2006.01); **B24B 5/14** (2006.01); **B24B 27/00** (2006.01)

CPC (source: EP KR US)
B24B 5/12 (2013.01 - EP KR US); **B24B 5/14** (2013.01 - EP KR US); **B24B 27/0061** (2013.01 - EP US)

Citation (search report)
See references of WO 2004014606A1

Designated contracting state (EPC)
CZ DE ES FR GB IT

DOCDB simple family (publication)
WO 2004014606 A1 20040219; **WO 2004014606 A8 20051208**; AU 2003255329 A1 20040225; AU 2003255329 A8 20040225; BR 0313201 A 20050628; CA 2492834 A1 20040219; CN 100387395 C 20080514; CN 1675029 A 20050928; DE 10235808 A1 20040226; DE 10235808 B4 20090820; DE 50313400 D1 20110217; EP 1526946 A1 20050504; EP 1526946 B1 20110105; ES 2359238 T3 20110519; JP 2006509639 A 20060323; JP 4226551 B2 20090218; KR 20050038009 A 20050425; RU 2005106218 A 20050727; RU 2320467 C2 20080327; US 2005260926 A1 20051124; US 7083500 B2 20060801

DOCDB simple family (application)
EP 0308437 W 20030730; AU 2003255329 A 20030730; BR 0313201 A 20030730; CA 2492834 A 20030730; CN 03818725 A 20030730; DE 10235808 A 20020805; DE 50313400 T 20030730; EP 03784116 A 20030730; ES 03784116 T 20030730; JP 2004526826 A 20030730; KR 20057001839 A 20050201; RU 2005106218 A 20030730; US 52388305 A 20050207