

Title (en)
IMPROVEMENTS IN AND RELATING TO GRINDING MACHINES

Title (de)
VERBESSERUNGEN VON SCHLEIFMASCHINEN UND DIESE BETREFFEND

Title (fr)
PERFECTIONNEMENTS APPORTES AUX MACHINES A RECTIFIER

Publication
EP 1687118 B1 20070502 (EN)

Application
EP 04798452 A 20041108

Priority
• GB 2004004729 W 20041108
• GB 0327104 A 20031121

Abstract (en)
[origin: GB2408224A] A grinding machine comprising: a base; a wheelhead 10 with a grinding wheel 12 and wheel drive mounted thereon; a workholder 23 and drive means for rotating a workpiece 22 mounted therein about at least one axis 24; workholder drive means for moving the workholder 23 relative to the machine base; wheelhead drive means for moving the wheelhead 10 relative to the machine base and a programmable computer based control system for independently controlling the drives to perform a grinding operation by engaging the wheel 12 with the workpiece 22. The wheelhead 10 is moveable along two orthogonal x and z axes, 25 and 19, in a first plane in which movement along the x-axis 25 moves the wheel 12 towards or away from the workholder 23; the workholder 23 is rotatable about a c-axis 24 that is parallel to and in the same plane as the axis of rotation of the wheel 12. The common plane being coincident with or parallel to said first plane. During engagement between the wheel 12 and workpiece 22, the control system controls the rotational movement of the workpiece about the c-axis 24 and the movement of the wheelhead 23 along the x and z axes, 25 and 19, so as to determine how the workpiece 22 is to be ground. Varying oscillatory movement can be used to grind flat slots. A plurality of wheel dressing tools 26, 28 and 30 or additional machining tools (figures 3 and 4, 42, 43) may also be provided.

IPC 8 full level
B24B 19/12 (2006.01); **B24B 7/16** (2006.01); **B24B 19/02** (2006.01); **B24B 41/06** (2012.01); **B24B 53/053** (2006.01)

CPC (source: EP)
B24B 7/16 (2013.01); **B24B 19/02** (2013.01); **B24B 19/125** (2013.01); **B24B 41/067** (2013.01); **B24B 53/053** (2013.01)

Cited by
CN102689245A; CN100436056C

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

DOCDB simple family (publication)
GB 0327104 D0 20031224; **GB 2408224 A 20050525**; **GB 2408224 B 20051109**; AT E361176 T1 20070515; DE 602004006296 D1 20070614; DE 602004006296 T2 20080110; EP 1687118 A1 20060809; EP 1687118 B1 20070502; WO 2005051596 A1 20050609

DOCDB simple family (application)
GB 0327104 A 20031121; AT 04798452 T 20041108; DE 602004006296 T 20041108; EP 04798452 A 20041108; GB 2004004729 W 20041108