

Title (en)  
MULTI-SPINDLE CNC LATHE

Title (de)  
MEHRSPINDEL-CNC- DREHMASCHINE

Title (fr)  
TOUR MULTIBROCHE A COMMANDE NUMERIQUE PAR ORDINATEUR

Publication  
**EP 0848656 A1 19980624 (EN)**

Application  
**EP 96930517 A 19960814**

Priority  

- US 9613173 W 19960814
- US 51473995 A 19950814

Abstract (en)  
[origin: WO9706911A1] A multi-spindle CNC lathe (50) comprises a frame assembly mounted on a base (52) and including spaced apart, rigidly interconnected subframes (104, 106) defining spaced, parallel alignment surfaces. A plurality of spindles (430) each includes a collet (450) for rotating a stock about a spindle axis. An indexing mechanism (218) positions the spindles (430) in alignment with work stations located at equally spaced intervals about a central axis. Internal tool slides (220) mounted on the alignment surface (106) of one of the subframes (104, 106) each comprises a servo mechanism (224) for advancing and retracting a cutting tool along a work station axis.

IPC 1-7  
**B23B 13/00**

IPC 8 full level  
**B23B 9/00** (2006.01); **B23B 9/04** (2006.01); **B23Q 1/00** (2006.01); **B23Q 5/26** (2006.01); **B23Q 11/00** (2006.01); **B23Q 11/10** (2006.01);  
**B23Q 39/04** (2006.01); **H05K 3/00** (2006.01)

CPC (source: EP)  
**B23Q 1/0018** (2013.01); **B23Q 5/26** (2013.01); **B23Q 11/0032** (2013.01); **B23Q 11/0053** (2013.01); **B23Q 11/10** (2013.01);  
**B23Q 39/042** (2013.01); **H05K 3/002** (2013.01); **H05K 2201/0133** (2013.01); **H05K 2201/0195** (2013.01); **H05K 2201/0209** (2013.01);  
**H05K 2201/0358** (2013.01); **H05K 2203/0759** (2013.01); **H05K 2203/0783** (2013.01); **H05K 2203/122** (2013.01)

Designated contracting state (EPC)  
BE CH DE ES FR GB IT LI LU NL

DOCDB simple family (publication)  
**WO 9706911 A1 19970227**; AU 6952496 A 19970312; CA 2228132 A1 19970227; EP 0848656 A1 19980624; EP 0848656 A4 20011128;  
JP H11510746 A 19990921

DOCDB simple family (application)  
**US 9613173 W 19960814**; AU 6952496 A 19960814; CA 2228132 A 19960814; EP 96930517 A 19960814; JP 50945296 A 19960814