

Title (en)  
HYDRAULIC MANUAL DEVICE

Title (de)  
HYDRAULISCHES HANDGERÄT

Title (fr)  
APPAREIL MANUEL HYDRAULIQUE

Publication  
**EP 0880416 B1 20030502 (DE)**

Application  
**EP 97910372 A 19970927**

Priority  
• DE 19649932 A 19961202  
• EP 9705302 W 19970927

Abstract (en)  
[origin: US6065326A] PCT No. PCT/EP97/05302 Sec. 371 Date Sep. 25, 1998 Sec. 102(e) Date Sep. 25, 1998 PCT Filed Sep. 27, 1997 PCT Pub. No. WO98/24570 PCT Pub. Date Jun. 11, 1998A manual hydraulic apparatus (1) with a traction/pressure installation, for example, a hole punch apparatus, with a hydraulic piston (5) which can be moved with respect to a cylindrical housing (25), and with a holding-up part (2) and a fastening installation (3), for example, for a piercing punch. The fastening installation (3) is rigidly connected to the cylindrical housing (25) and the holding-up part (2) can be moved by the hydraulic piston (5) with respect to the fastening installation (3).

IPC 1-7  
**B21J 15/20; B21D 28/34**

IPC 8 full level  
**B21D 28/00** (2006.01); **B21D 28/34** (2006.01); **B21J 15/20** (2006.01); **B25F 5/00** (2006.01)

CPC (source: EP US)  
**B21D 28/002** (2013.01 - EP US); **B21D 28/343** (2013.01 - EP US); **B21J 15/20** (2013.01 - EP US); **B25F 5/005** (2013.01 - EP US); **Y10T 29/53226** (2015.01 - EP US)

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**US 6065326 A 20000523**; AT E238861 T1 20030515; DE 19649932 A1 19980604; DE 59709975 D1 20030605; EP 0880416 A1 19981202; EP 0880416 B1 20030502; ES 2193358 T3 20031101; WO 9824570 A1 19980611

DOCDB simple family (application)  
**US 11742198 A 19980925**; AT 97910372 T 19970927; DE 19649932 A 19961202; DE 59709975 T 19970927; EP 9705302 W 19970927; EP 97910372 A 19970927; ES 97910372 T 19970927