

Title (en)  
HYDRAULIC MANUAL DEVICE

Title (de)  
HYDRAULISCHES HANDGERÄT

Title (fr)  
APPAREIL MANUEL HYDRAULIQUE

Publication  
**EP 0880416 A1 19981202 (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)

Citation (search report)  
See references of WO 9824570A1

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