

Title (en)  
Drive for hydraulic presses with high number of cycles

Title (de)  
Antrieb für hydraulische Pressen mit hoher Hubzahl

Title (fr)  
Entraînement pour presses hydrauliques à grand nombre de cycles

Publication  
**EP 0692327 B1 19980128 (DE)**

Application  
**EP 95110272 A 19950701**

Priority  
DE 4423174 A 19940701

Abstract (en)  
[origin: EP0692327A1] The drive of a hydraulic press has at least one double-acting piston-cylinder unit (2,3) with a drive piston (5) for displacement of a press ram (1). During an initial phase of operation of the press, with the unloaded ram (1) moving downwards, the upper and lower cylinder spaces (7,8) of the piston-cylinder unit (2,3) are connected via a valve system (10), while a motor/pump system (12-16) with a vol.-controlled hydromotor/pump unit (14) is foreseen for the subsequent forming phase. The unit (14) is driven by at least one chargeable accumulator system (19), and its controllable torque is transmitted to a controllable pump (12) communicating with the top cylinder space (7) of piston/cylinder unit.  
<IMAGE>

IPC 1-7  
**B21J 9/12; B30B 15/16**

IPC 8 full level  
**B21J 9/12** (2006.01); **B30B 15/16** (2006.01)

CPC (source: EP)  
**B21J 9/12** (2013.01); **B30B 15/16** (2013.01); **B30B 15/163** (2013.01)

Cited by  
DE102009052531A1; CN103042147A; EP0972631A1; CN105235267A; CN104540666A; DE102011053615A1; CN111347713A; US9168713B2; WO2011105973A1; WO0224441A1; WO2011021986A1; WO2013156095A1; WO2011057773A2; US9044913B2

Designated contracting state (EPC)  
DE ES FR IT

DOCDB simple family (publication)  
**EP 0692327 A1 19960117; EP 0692327 B1 19980128**; DE 19524042 A1 19960321; DE 59501353 D1 19980305; ES 2113699 T3 19980501

DOCDB simple family (application)  
**EP 95110272 A 19950701**; DE 19524042 A 19950701; DE 59501353 T 19950701; ES 95110272 T 19950701