

Title (en)

HYDRO-MECHANICAL CLAMP IN PARTICULAR FOR TRANSVERSE EXTRUSION

Title (de)

HYDRAULISCH-MECHANISCHE SCHLIESSVORRICHTUNG, INSBESONDERE ZUM RFLIESSPRESSEN

Title (fr)

DISPOSITIF DE SERRAGE HYDROMECHANIQUE SERVANT NOTAMMENT A L'EXTRUSION LATERALE

Publication

EP 1385652 B1 20050629 (DE)

Application

EP 02719598 A 20020430

Priority

- CH 0200237 W 20020430
- DE 10123745 A 20010511

Abstract (en)

[origin: WO02092258A1] The invention relates to a hydro-mechanical clamp comprising two displaceable die-block halves (M1, M2) and two pressure rams (S1, S2). A first hydraulic piston (K1) is mounted in an axially displaceable first hydraulic cylinder (Z1) and a second hydraulic piston (K2) in a second hydraulic cylinder (Z2) in a displaceable manner. The second die-block half (M2) is fixed to the frame and the second pressure ram (S2) is arranged on the second hydraulic piston (K2). According to the invention, the first hydraulic cylinder (Z1) is connected to a third hydraulic cylinder (Z3), in which a third hydraulic piston (K3) is mounted. The above engages with a fourth hydraulic piston (K4) which runs in a fourth hydraulic cylinder (Z4). The first hydraulic cylinder (Z1) is connected to the third hydraulic cylinder (Z3), such that pressure medium displaced from the first hydraulic cylinder (Z1) on a forwards displacement, flows into the third hydraulic cylinder and the third hydraulic piston (K3) displaces the fourth hydraulic piston (K4) in a forwards direction so that pressure medium is forced into the second hydraulic cylinder (Z2) and the second hydraulic piston (K2) is pressurised with the necessary moulding pressure and the pressure rams (S1, S2) move together.

IPC 1-7

B21J 5/02; **B21C 23/21**

IPC 8 full level

B21J 5/06 (2006.01); **B21C 23/21** (2006.01); **B21J 5/02** (2006.01)

CPC (source: EP KR US)

B21C 23/21 (2013.01 - KR); **B21J 5/02** (2013.01 - EP US)

Cited by

CN103240294A; CN103252631A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 02092258 A1 20021121; AT E298638 T1 20050715; CZ 20033322 A3 20040818; CZ 297240 B6 20061011; DE 10123745 A1 20021121; DE 10123745 C2 20030703; DE 50203512 D1 20050804; EP 1385652 A1 20040204; EP 1385652 B1 20050629; ES 2242009 T3 20051101; JP 2004524978 A 20040819; JP 3949057 B2 20070725; KR 100593227 B1 20060628; KR 20030093333 A 20031206; US 2004129053 A1 20040708; US 7059165 B2 20060613

DOCDB simple family (application)

CH 0200237 W 20020430; AT 02719598 T 20020430; CZ 20033322 A 20020430; DE 10123745 A 20010511; DE 50203512 T 20020430; EP 02719598 A 20020430; ES 02719598 T 20020430; JP 2002589181 A 20020430; KR 20037014152 A 20031029; US 47548303 A 20031020