

Title (en)

DEVICE FOR CONTROLLING THE DRAWING PROCESS IN A TRANSFER PRESS

Title (de)

EINRICHTUNG ZUR STEUERUNG DES ZIEHVORGANGS BEI EINER TRANSFERPRESSE

Title (fr)

SYSTEME POUR COMMANDER LE PROCESSUS D'ETIRAGE DANS UNE PRESSE DE TRANSFERT

Publication

EP 1656224 B1 20080402 (DE)

Application

EP 04741376 A 20040806

Priority

- EP 2004008807 W 20040806
- DE 10336279 A 20030807

Abstract (en)

[origin: WO2005016571A1] The invention relates to a device for controlling the drawing process in a transfer press, said device comprising two antagonistic tool parts (11, 12) between which a workpiece (10) to be formed is held. One tool part (11) can be displaced between two stop points (OT, UT) by a mechanical crank mechanism (13) driven at a constant rotational speed. The second tool part (12) is connected to the piston (16) of a hydraulic differential cylinder (15) by means of a piston rod (17). During a first time interval, inside a region defined by the first and the second stop point, the rod-side surface (Ar) of the piston is subjected to a pressure that is sufficiently high to accelerate the second tool part (12) in such a way that when the two tool parts meet, they both move at practically the same speed. A controllable throttle (35) is arranged between a bottom-side chamber (15b) and a tank (26). In order to save energy during the operation of one such transfer press, in a second time interval following the first time interval and lasting until the second stop point (UT), the rod-side surface (Ar) of the piston is subjected to a second pressure that is smaller than the pressure subjected thereon during the first time interval.

IPC 8 full level

B21D 24/02 (2006.01); **B21D 24/14** (2006.01)

CPC (source: EP US)

B21D 24/02 (2013.01 - EP US); **B21D 24/14** (2013.01 - EP US); **B30B 15/148** (2013.01 - EP US); **B30B 15/163** (2013.01 - EP)

Cited by

US8757056B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005016571 A1 20050224; AT E390966 T1 20080415; DE 10336279 A1 20050303; DE 502004006732 D1 20080515; EP 1656224 A1 20060517; EP 1656224 B1 20080402; ES 2302006 T3 20080701; JP 2007507349 A 20070329; US 2006254337 A1 20061116; US 7827843 B2 20101109

DOCDB simple family (application)

EP 2004008807 W 20040806; AT 04741376 T 20040806; DE 10336279 A 20030807; DE 502004006732 T 20040806; EP 04741376 A 20040806; ES 04741376 T 20040806; JP 2006522323 A 20040806; US 56261204 A 20040806