

Title (en)

MECHANICAL OR HYDRAULIC PRESS WITH DRAWING OR PRESSING STATION FOR MULTIPLE STAGE PRESS

Publication

EP 0417754 A3 19910612 (DE)

Application

EP 90117537 A 19900912

Priority

DE 3930349 A 19890912

Abstract (en)

[origin: EP0417754A2] The invention proposes a mechanical or hydraulic press with a drawing device for drawing work or drawing station of a multiple stage press, in which the blank holding performed by a platen is effected by means of hydraulic clamping. In order to damp the impact which occurs when the top tool (7) strikes the platen (6) and, especially to damp the impact noise and to perform the subsequent drawing operation by means of positive control, the movement of the press ram (8) is transmitted to a pumping cylinder (12), the hydraulic fluid of which acts on a further pressure cylinder (17), which is connected to the die cushion (10) to give a preliminary acceleration. The clamping of the die cushion takes place via an accumulator (21) after the preliminary acceleration has been effected. <IMAGE>

IPC 1-7

B21D 24/10

IPC 8 full level

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CPC (source: EP)

B21D 24/10 (2013.01); **B21D 24/14** (2013.01)

Citation (search report)

- [YD] DE 3619109 A1 19870507 - WARNKE UMFORMTECH VEB K [DD]
- [Y] DE 3835470 A1 19890622 - WARNKE UMFORMTECH VEB K [DD]

Cited by

DE10125078B4; ES2084558A2; EP1138406A3; EP0692323A3; US5687598A; EP0744230A1; US5623848A; CN1064867C; DE102006057051A1; US7681427B2; US6729173B2; WO02087801A1; WO2008064619A1; WO2006040105A3; JP2008515641A

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