

Title (en)
Drawing apparatus for a press

Title (de)
Ziehvorrichtung für eine Presse

Title (fr)
Dispositif d'étirage pour une presse

Publication
EP 0768127 A3 19970423 (DE)

Application
EP 96116085 A 19961008

Priority
DE 19538316 A 19951014

Abstract (en)
[origin: EP0768127A2] The device has a piston rod (5) to retain a metal sheet in a holder, which can be accelerated before the application of a drawing element. An accelerating cylinder (5) is fixed to the press, and has an accelerating piston which combines with the rod, and which has a larger first pressure surface which opposes the drawing direction, than its opposing second pressure surface. The corresponding first and second pressure spaces (7,8) in the cylinder around the accelerating piston can be connected to a pressure reservoir (11), and the first pressure space can also be connected to a dosing cylinder (15), in which a dosing piston (16) is guided. A forward stroke cylinder (17) is fixed to the press parallel to the retaining piston rod, and has a forward stroke piston rod (18) and a piston (19), which is separated from it by a controlled first pressure volume (20). A second pressure volume (21) can also be displaced by this piston.

IPC 1-7
B21D 24/14

IPC 8 full level
B21D 24/14 (2006.01)

CPC (source: EP US)
B21D 24/14 (2013.01 - EP US)

Citation (search report)

- [A] EP 0635320 A1 19950125 - ERFURT UMFORMTECHNIK GMBH [DE]
- [AP] EP 0703018 A1 19960327 - MUELLER WEINGARTEN MASCHF [DE]
- [A] EP 0417752 A2 19910320 - MUELLER WEINGARTEN MASCHF [DE]
- [AD] DE 3640788 A1 19880601 - SCHULER GMBH L [DE]

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 0768127 A2 19970416; EP 0768127 A3 19970423; EP 0768127 B1 20000712; CZ 290543 B6 20020814; CZ 298996 A3 19970416; DE 19538316 A1 19970417; DE 59605580 D1 20000817; ES 2149413 T3 20001101; US 5746084 A 19980505

DOCDB simple family (application)
EP 96116085 A 19961008; CZ 298996 A 19961011; DE 19538316 A 19951014; DE 59605580 T 19961008; ES 96116085 T 19961008; US 72915896 A 19961011