

Title (en)
DRAWING DEVICE FOR A PRESS

Publication
EP 0268893 B1 19920819 (DE)

Application
EP 87116279 A 19871105

Priority
DE 3640788 A 19861128

Abstract (en)
[origin: EP0268893A2] 2.1 The drawing device has to exert the holding force for steadying during the drawing. The drawing ram moves the sheet metal and the sheet-metal holder counter to the holding force exerted by the drawing device and also has to overcome the mass forces of inertia which occur as a result of the acceleration of the parts of the drawing device at the start of deformation of the sheet-metal part. <??>2.2 To prevent the forces which are abruptly generated thereby, the piston rod (3) transmitting the holding force is pre-accelerated in the drawing direction (43) before the drawing ram is applied to the sheet-metal holder. The piston rod (3) has an effective surface (13) which can be loaded in the drawing direction (43). The pressure space (12) assigned to the effective surface (13) can be connected to a pressure-quantity space (18) of a pre-acceleration cylinder (16) and, via a follow-up control (30, 31), to a reservoir (4). The time control of the pre-acceleration cylinder (16) and the follow-up from the reservoir (4) takes place as a function of the movement of the drawing ram under press control. <??>2.3 The drawing device can be used in presses with a mechanically driven drawing ram and with a sheet-metal holder holding the sheet metal. <IMAGE>

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IPC 8 full level
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EP 0268893 A2 19880601; **EP 0268893 A3 19891227**; **EP 0268893 B1 19920819**; CA 1280039 C 19910212; DE 3640788 A1 19880601; DE 3781244 D1 19920924; ES 2033768 T3 19930401; US 4896594 A 19900130

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