

Title (en)

RIVETING PRESS FOR ATTACHING FUNCTIONAL HABERDASHERY ELEMENTS SUCH AS SNAP FASTENER PARTS ONTO SUPPORTS

Publication

**EP 0232534 B1 19900307 (DE)**

Application

**EP 86117828 A 19861220**

Priority

DE 3600101 A 19860104

Abstract (en)

[origin: EP0232534A2] 1. Riveting press (10) with an upper and lower tool (11; 13) for attaching a haberdashery functional element (30), such as part of a stud, an eye, a hook, a rivet head or similar, to a carrier (22), such as an article of clothing, by means of a shapable fastening element (31), such as staples, rivet shanks, pins or similar, which can be bent around, upset or pressed into position respectively, whose upper tool (11), which can be moved vertically, is made of two parts and comprises, on the one hand, a gripper (16), which can be moved vertically, for positioning a top element (30), such as part of a stud, on the carrier (22) and, on the other hand, consists of a top ram (15), which can be moved vertically with a time lag relative to said gripper, and performs the riveting work between the top element (30) and the bottom element (31), which is held in position by the lower tool (11; 13), and with a finger protection device located on the lifting rod (19) of the gripper (16), said device being effective during the downward motion (20) of the gripper (16) until a certain safety distance (33) relative to the lower tool (13) is reached, and which responds to an obstacle located in the downward path and which prevents the downward motion (14) of the upper tool (11) if it has responded, characterised in that, the stroke motion (20) of the gripper (16) is produced by muscular force, especially by the activation of a pedal (40), but the stroke motion (14, 14') of the top ram (15) is produced by a pneumatic piston cylinder drive (12), on whose piston rod (56) the top ram (15) rests, and that a pneumatically activated pulse valve (72, 72') can be switched over between two working positions through alternating control pressure (84, 84'), whereby at least the piston-side cylinder end (53') is connected in the one working position (72') to the compressed air source (60) and in the other working position (72) to an outlet (77'; 82) for effecting the downward and upward motions (14) of the top ram (15), the gripper (20) supports a pair of moving cams (107, 107'), and at the first dead point (16) of the gripper the first of said cams (107) connects a first control valve (100) and, at the lower dead point position (16'') of the gripper, the second cam (107') connects a second control valve (100') alternately to the source of compressed air (60) and thus provides the alternating control pressure (84, 84') for the switch-over (72, 72') of the pulse valve, and the second cam (107') simultaneously forms the finger protection device and, with its controlling cam surface (29, 26'), is set so far back (37) from the impact end (36) of the gripper (16) that the cam surface (29, 26') only activates (101') the control valve (100') below the gripper position (16') which defines the safety distance (33).

IPC 1-7

**A41H 37/04; B21J 15/28; F16P 3/04**

IPC 8 full level

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CPC (source: EP)

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Cited by

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**EP 0232534 A2 19870819; EP 0232534 A3 19880120; EP 0232534 B1 19900307; DE 3669385 D1 19900412**

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