

Title (en)
PRESSURE RAISING HYDROPNEUMATIC CONTROL DEVICE

Publication
EP 0012769 B1 19830223 (DE)

Application
EP 79900462 A 19791205

Priority
DE 2818337 A 19780426

Abstract (en)
[origin: WO7900986A1] For the hydropneumatic control of a fast motion and a driving travel, in particular for the control of stamping tools, there is provided a device comprising a cylinder (1, 4) provided with a transverse wall (12), a disc piston (7) with a plunger (8), a work piston (2) which may be actuated in a return direction by pressure air, and a ring-shaped piston (9) surrounding the plunger (8). The portions of the cylinder on either side of the transverse wall, between the work piston (2) and the ring-shaped piston (9) are filled with hydraulic fluid. In order to decrease the need for pressure air and to increase the reaction speed, as well as for simplification purposes, the work piston (2) is provided with an annular surface (16a) aimed at receiving pressure air which actuates said piston in the forward direction while, between the disc piston (7) and the annular piston (9), a pressure spring (10) is inserted. The part of the piston containing the spring (10) is permanently connected with the outside, preferably through a filter (11).

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IPC 8 full level
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Cited by
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FR

DOCDB simple family (publication)
WO 7900986 A1 19791129; AT 380542 B 19860610; AT A301279 A 19851015; CH 640312 A5 19831230; DD 143296 A5 19800813; DE 2818337 B1 19791018; DE 2818337 C2 19800717; EP 0012769 A1 19800709; EP 0012769 B1 19830223; GB 2055972 A 19810311; GB 2055972 B 19820818; IT 1112714 B 19860120; IT 7922103 A0 19790424; SE 433650 B 19840604; SE 7910518 L 19791220; US 4300351 A 19811117

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