

Title (en)
ELECTROMAGNETIC SPOOL VALVE

Publication
EP 0110126 B1 19860604 (DE)

Application
EP 83110667 A 19831026

Priority
DE 3243180 A 19821123

Abstract (en)
[origin: EP0110126A1] 1. Electromagnetically actuated directional valve (10, 80, 110) with a longitudinal slide (45) which is arranged in a slide bore (12) of a housing (11) and which controls at least the connections between an inflow chamber (15) and a motor chamber (16, 17) and between the motor chamber (16, 17) and a return-flow chamber (18, 19), for which purpose the longitudinal slide (45) can be deflected by the armature (67) of a magnet (68), counter to the force of a restoring spring (54), out of an initial position into a working position connecting the motor chamber (16, 17) to the return, and with a motor channel (26) leading from the motor chamber (16, 17) to a motor connection (28), characterized in that inserted in the motor channel (26) is a pilot-controlled stop valve (43) which allows a throughflow from the motor chamber (16, 17) to the motor connection (28) and which stops the return flow when the pilot control valve (72) is closed, for which purpose the closing member (38) of the stop valve (43) is loaded in the closing direction by the force of a spring (37) and the control pressure in a pressure chamber (31) and the pressure chamber (31) is connected to the motor connection (28) via a throttle (42), in that the closing member (38) has assigned to it an annular surface which acts in the opening direction and is subjected directly to the pressure prevailing at the motor connection (28), and which serves for opening the closing member (38) counter to the spring force, in that a control line (73) passes in a way which can be influenced from the pressure chamber (31) to the return (18) via a control slide (61) of the pilot control valve (72), the pilot control slide (61) being inserted into the operative connection between the armature (67) and the longitudinal slide (45), being arranged coaxially relative to these (67, 45) and having a substantially smaller outside sealing diameter than the longitudinal slide (45), and in that the pilot control slide (61), when the magnet (68) is not excited, shuts off the control line (73), and, when the magnet (68) is excited, opens the control line (73).

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F15B 13/044

IPC 8 full level
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CPC (source: EP)
F15B 13/0402 (2013.01); **F15B 13/044** (2013.01); **F15B 2013/0413** (2013.01)

Cited by
USRE38355E; CN104776076A; GB2263154A; US5799485A; GB2218783A; FR2631595A1; GB2218783B; US10215200B2; WO9701041A1

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