

Title (en)
DIRECTIONAL CONTROL VALVE COMPRISING AN INTERNAL PRESSURE REGULATOR

Title (de)
WEGEVENTIL MIT INNENLIEGENDER DRUCKWAAGE

Title (fr)
TIROIR A BALANCE MANOMETRIQUE SITUEE A L'INTERIEUR

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Application
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Abstract (en)
[origin: WO02088550A1] The invention relates to a directional control valve comprising an internal pressure regulator. The pressure regulator piston (5) of the latter is configured as a hollow slide with a radial passage (31). According to the invention, the radial passage (31) is positioned in such a way that a connection from the internal chamber (7) of the pressure regulator piston (5) to a pump pressure annular channel (P) can be regulated by said radial passage (31) and a second radial passage (22) of a directional control valve piston (3). At the same time the second radial passage (22) constitutes a control edge, which is used to regulate the connection from the internal chamber (7) to the load sensing annular channel (LS). According to the invention, an annular groove (41), which in the neutral position forms a connection from the internal chamber (7) to the load sensing annular channel (LS), is joined to the second radial passage (22). The invention enables the pressure regulator to be impervious to different flow forces caused by different mass fluxes and ensures that the hydraulic consumer is prevented from moving in the neutral position.

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