

Title (en)
Hydraulic system

Title (de)
Hydraulikanlage

Title (fr)
Système hydraulique

Publication
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Application
EP 11157419 A 20110309

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Abstract (en)
A hydraulic system is described having a spool valve (10) with two output ports connectible to opposite sides of a hydraulic load and three input ports which include a supply port (PC) connectable to a pressure supply line, a return port (R) connectable to a return line having resistance (38) to flow and a pressure sensing port (PLS) connectable to a sensing line. In each position of the valve spool (10) in which the supply port (PC) communicates with one side of the load and the return port communicates with the other side of the load, a throttle is provided in the spool valve within the passage communicating with the supply port, the downstream side of the throttle being connected to the pressure sensing port (PLS). In the invention, a low resistance discharge path (22) is provided between at least one of the output ports (B) and the reservoir, the discharge path (22) including a normally closed valve (24) that opens automatically when the pressure difference between the sensing port (PLS) and the output port (B) exceeds a predetermined level.

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Citation (search report)

- [XY] DE 102005022275 A1 20060216 - BOSCH REXROTH AG [DE]
- [YA] US 6092454 A 20000725 - VANDE KERCKHOVE PHILIPPE G [BE]
- [A] WO 2004042235 A1 20040521 - BOSCH REXROTH AG [DE], et al
- [A] EP 0251172 A2 19880107 - VICKERS INC [US]

Cited by
US9708796B2; US9790964B2; CN104822911A; EP3786461A1; IT201900015363A1; US9085873B2; EP3001042A1; EP3001043A1; US2016090716A1; US2016090997A1; CN105465064A; CN105465076A; WO2013095926A1; WO2014060645A1

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