

Title (en)

Pressure limiting control circuit for the safe operation of a variable displacement radial or axial hydraulic piston pump or vane cell machine

Title (de)

Druckbegrenzungsregelungskreis für den sicheren Betrieb einer verstellbaren hydraulischen Radial-, Axialkolbenpumpe oder Flügelzellenmaschine

Title (fr)

Circuit de contrôle de pression de sécurité pour une pompe hydraulique radiale ou axiale à cylindrée variable ou une machine à cellules semi-rotatives

Publication

EP 0884476 A3 19990203 (DE)

Application

EP 98105057 A 19980320

Priority

DE 19724870 A 19970612

Abstract (en)

[origin: EP0884476A2] An adjustable hydraulic processing machine (11) has an adjusting device (14) working on a lifting device (12). The former is controlled from an electrohydraulic control valve that has a slider. The control valve works together with a safety device (60) which subjects the valve slider of the valve to hydraulic force during disturbances in the control of the adjusting device so that the control valve takes the attached adjusting device into a new position. It controls it in the respect that the processing machine generates a system pressure at least approximately constant. The safety device has a pilot valve (62) and at least one pressure divider (64) made of at least two throttle devices (66). They are connected up one behind the other in a channel for pressure medium and connect the high pressure side of the machine with the low pressure side.

IPC 1-7

F04B 49/00; **F04B 49/06**

IPC 8 full level

F04C 14/04 (2006.01); **F04B 49/06** (2006.01); **F04B 49/08** (2006.01); **F04B 49/10** (2006.01); **F04C 14/26** (2006.01); **F04C 14/28** (2006.01); **F15B 20/00** (2006.01)

CPC (source: EP)

F04B 49/08 (2013.01); **F04B 49/10** (2013.01); **F04B 2205/061** (2013.01)

Citation (search report)

- [Y] DE 4115606 A1 19921119 - PUTZMEISTER MASCHF [DE]
- [X] DE 3140397 A1 19830428 - BOSCH GMBH ROBERT [DE]
- [A] DE 3629638 A1 19870312 - YUKEN KOGYO CO LTD [JP]
- [DA] DE 4410719 A1 19951005 - BOSCH GMBH ROBERT [DE]
- [XY] BOSCH GMBH: "Neues von Bosch", ÖLHYDRAULIK UND PNEUMATIK, vol. 27, no. 4, April 1983 (1983-04-01), Mainz, Deutschland, pages 275 - 276, XP002087125

Cited by

FR2993940A1; WO2014016304A1

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DOCDB simple family (publication)

EP 0884476 A2 19981216; **EP 0884476 A3 19990203**; **EP 0884476 B1 20031022**; DE 19724870 A1 19981217; DE 59809947 D1 20031127; JP H1150968 A 19990223

DOCDB simple family (application)

EP 98105057 A 19980320; DE 19724870 A 19970612; DE 59809947 T 19980320; JP 16527898 A 19980612