

Title (en)

CONTROL AND COMMAND ASSEMBLY FOR A LIFTING ARM OF AN OPERATING MACHINE

Title (de)

STEUER- UND BEFEHLSANORDNUNG FÜR EINEN HUBARM EINER ARBEITSMASCHINE

Title (fr)

ENSEMBLE DE COMMANDE ET DE COMMANDE POUR UN BRAS DE LEVAGE D'UNE MACHINE D'EXPLOITATION

Publication

**EP 4353913 A1 20240417 (EN)**

Application

**EP 23196866 A 20230912**

Priority

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Abstract (en)

A control and command assembly for a lifting arm (13) of an operating machine (10) comprising:- a hydraulic system (30) comprising: ■ a valve distributor (31) comprising one or more sections (S1,...S4) connectable to respective utilities (131,132,133,134); ■ an operating fluid supply apparatus (32) comprising a pump (320) adapted to supply the pressurized operating fluid to the valve distributor (31); ■ an operating fluid discharge tank (T) connected to one or more discharge sections of the respective utilities (131,132,133,134); and ■ an adjustable pressure limiting valve (35) configured to limit a maximum pressure of the operating fluid in the valve distributor (31); wherein the control and command assembly further comprises:- at least one sensor (411,412,413,414,415) configured to detect an operating parameter of the operating machine (10); and- an electronic control unit (45) operatively connected to the sensor (41,42,43,44); characterized in that the pressure limiting valve (35) is an electronically controlled valve that is operatively connected to the electronic control unit (45) and the electronic control unit (45) is configured to: detect a value of the operating parameter via the sensor (411,412,413,414,415); determine a maximum permissible pressure value in the valve distributor (31) as a function of the value of the detected operating parameter; and set the pressure limiting valve (35) at the determined maximum permissible pressure value.

IPC 8 full level

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Citation (search report)

- [XAYI] JP H07190004 A 19950728 - HITACHI CONSTRUCTION MACHINERY
- [Y] EP 3305994 A2 20180411 - DOOSAN INFRACORE CO LTD [KR]
- [Y] US 2015217981 A1 20150806 - BAILLARGEON PAUL D [US], et al
- [Y] US 2022186461 A1 20220616 - KONDA TOMOKI [JP], et al
- [Y] EP 3249117 A1 20171129 - DOOSAN INFRACORE CO LTD [KR]

Designated contracting state (EPC)

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