

Title (en)
Hydraulic circuit for construction machine

Title (de)
Hydraulischer Schaltkreis einer Arbeitsmaschine

Title (fr)
Circuit hydraulique pour machine de travail

Publication
EP 1172565 B1 20050112 (EN)

Application
EP 01302794 A 20010326

Priority
JP 2000208724 A 20000710

Abstract (en)
[origin: EP1172565A2] To provide a way to ensure the supply of a necessary amount of hydraulic fluid to the established actuator circuits even if the pressure in the independent attachment circuit becomes excessively high. Hydraulic fluid fed from hydraulic pumps 2,3 is controlled by means of established actuator circuits 5,6 to operate established actuators of a construction machine. A flow dividing control valve 10 causes a part of the hydraulic fluid fed to the established actuator circuits 5,6 to branch off and be fed to the independent attachment circuit 7 with its amount controlled by variable throttles 39,40, thereby driving the attachment of the construction machine. Pressure compensation valves 11,12 respectively control the variable throttles 39,40 of the flow dividing control valve 10 to maintain a constant differential pressure between the inlet and the outlet of each variable throttle. When a controller 53 detects by a pressure sensor 51 that the circuit pressure in the independent attachment circuit 7 has increased to an excessively high level, the controller 53 controls an electromagnetic proportional control valve 57 regardless of operation signals from an attachment operation lever 54 so as to reduce the aperture areas of the variable throttles 39,40 of the flow dividing control valve 10. <IMAGE>

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IPC 8 full level
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CPC (source: EP)
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Cited by
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Designated contracting state (EPC)
DE FR IT

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EP 1172565 A2 20020116; **EP 1172565 A3 20031112**; **EP 1172565 B1 20050112**; DE 60108309 D1 20050217; DE 60108309 T2 20060302; JP 2002021809 A 20020123; JP 3511500 B2 20040329

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