

Title (en)

DEVICE FOR REDUCING A SHOCK AT A STROKE END OF A 2-PIECE BOOM TYPE CONSTRUCTION MACHINE

Title (de)

VORRICHTUNG ZUR VERMINDERUNG DER STOSSE AM ENDE DER BEWEGUNG EINER BAUMASCHINE MIT EINEM ZWEITEILIGEN AUSLEGER

Title (fr)

DISPOSITIF DE REDUCTION DES CHOCS AU POINT EXTREME DE LA COURSE D'UN ENGIN DE CONSTRUCTION DU TYPE A FLECHE ARTICULEE

Publication

EP 0919670 A4 20000405 (EN)

Application

EP 97930798 A 19970715

Priority

- JP 9702450 W 19970715
- JP 19090196 A 19960719

Abstract (en)

[origin: WO9803739A1] A 2-piece boom type construction machine for securely reducing a shock at a stroke end of a first boom cylinder at low cost wherein first and second booms are put in a maximum derricking state when the first boom cylinder is put in a longest state, while the second boom cylinder in a shortest stage, wherein when changed from a stored posture to an operating posture, the second boom cylinder is retracted to a shortest stage when in operation from a longest state when stored, and wherein when in operation, the second boom cylinder is held in the shortest state, said construction machine comprising angle detecting means for detecting the angle of the first boom, flow rate limit setting means having stored in advance therein a value representing a relationship between the angle of the first boom and the maximum supplying flow rate of the first boom cylinder such that the value becomes minimum within a predetermined angle range including a stroke end angle defined as the boom angle of the first boom when the first and second booms are put in the maximum derricking state, while the value gradually increases as it goes farther beyond the angle range, and flow rate limiting means for limit-controlling the flow rate of pressure oil to the first operating valve in a direction in which the boom is raised in accordance with the data stored in the flow rate limit setting means.

IPC 1-7

E02F 9/20; **E02F 9/22**; **E02F 3/30**

IPC 8 full level

E02F 3/30 (2006.01); **E02F 3/43** (2006.01); **E02F 9/20** (2006.01); **E02F 9/22** (2006.01); **E02F 9/24** (2006.01)

CPC (source: EP KR)

E02F 3/301 (2013.01 - EP KR); **E02F 9/2025** (2013.01 - EP); **E02F 9/2214** (2013.01 - EP); **E02F 9/2221** (2013.01 - KR); **E02F 9/2267** (2013.01 - KR)

Citation (search report)

- [A] EP 0671511 A2 19950913 - HITACHI CONSTRUCTION MACHINERY [JP]
- [A] WO 9518272 A1 19950706 - KOMATSU MFG CO LTD [JP], et al
- [A] US 4910673 A 19900320 - NARISAWA JUNICHI [JP], et al
- See references of WO 9803739A1

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EP2072691A1; US8225604B2; EP3385456A1; CN108691329A

Designated contracting state (EPC)

DE

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WO 9803739 A1 19980129; EP 0919670 A1 19990602; EP 0919670 A4 20000405; JP 3734189 B2 20060111; JP H1037246 A 19980210; KR 980009676 A 19980430

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