

Title (en)

LARGE MANIPULATOR HAVING A VIBRATION DAMPING CAPACITY

Title (de)

GROSSMANIPULATOR MIT SCHWINGUNGSDÄMPFUNG

Title (fr)

MANIPULATEUR DE GRANDE DIMENSION AVEC AMORTISSEMENT DE VIBRATIONS

Publication

EP 1354106 A1 20031022 (DE)

Application

EP 02715404 A 20020109

Priority

- DE 10101570 A 20010115
- EP 0200147 W 20020109

Abstract (en)

[origin: WO02055813A1] The invention relates to a large manipulator and concrete pumps comprising one such large manipulator. Said manipulator has a boom (1) consisting of a plurality of elements (2 to 5), especially 3 to 5 elements, and arranged on a frame, especially a chassis. Said boom is especially embodied as a foldable distributor boom and preferably comprises a fifth-wheel (6) so that it can be rotated about an essentially vertical rotational axis by means of a drive unit. The boom elements can be pivoted in relation to each other and in relation to the fifth-wheel about essentially horizontal rotational axes which are parallel to each other, by means of further drive units. A remote control device comprising a control body controls the drive units and pre-determines a desired nominal position for the drive units, the boom elements and the fifth-wheel. A regulating device is also provided, comprising at least one data entry unit (15) for recording a parameter relating to an out-of-order state of a least one boom element, said out-of-order state leading to a divergence from the position pre-determined by the control body, especially leading to a vibration of the boom element, and at least one detection unit (23, 24; 26) for detecting the load acting on the drive unit (8) and acting against the position pre-determined by the control body. Said regulating device interacts with the remote control device in such a way that at least one of the drive units (8) is controlled in such a way that the divergence from the pre-determined position of the boom elements is minimised and the vibration of the boom elements caused by the out-of-order state is damped.

IPC 1-7

E04G 21/04

IPC 8 full level

B60P 3/16 (2006.01); **E04G 21/04** (2006.01)

CPC (source: EP KR US)

B66C 13/066 (2013.01 - EP US); **B66C 13/18** (2013.01 - EP US); **B66C 23/00** (2013.01 - EP US); **E04G 21/04** (2013.01 - EP KR US); **E04G 21/0418** (2013.01 - EP US); **E04G 21/0454** (2013.01 - EP US)

Citation (search report)

See references of WO 02055813A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 02055813 A1 20020718; AU 2002224985 B2 20060202; BR 0206472 A 20031230; CN 1292138 C 20061227; CN 1486384 A 20040331; DE 10101570 A1 20020814; DE 10101570 B4 20081204; EP 1354106 A1 20031022; JP 2004516995 A 20040610; KR 100838748 B1 20080617; KR 20030088425 A 20031119; US 2004076502 A1 20040422; US 7143682 B2 20061205

DOCDB simple family (application)

EP 0200147 W 20020109; AU 2002224985 A 20020109; BR 0206472 A 20020109; CN 02803751 A 20020109; DE 10101570 A 20010115; EP 02715404 A 20020109; JP 2002556451 A 20020109; KR 20037009392 A 20030714; US 46603503 A 20031106