

Title (en)
LARGE MANIPULATOR HAVING A VIBRATION DAMPING CAPACITY

Title (de)
GROSSMANIPULATOR MIT SCHWINGUNGSDÄMPFUNG

Title (fr)
MANIPULATEUR DE GRANDE DIMENSION AVEC AMORTISSEMENT DE VIBRATIONS

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Application
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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.

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