

Title (en)

CONTROL SYSTEM AND METHOD FOR CONTROLLING THE ORIENTATION OF A SEGMENT OF A MANIPULATOR

Title (de)

REGELSYSTEM UND VERFAHREN ZUM STEUERN DER ORIENTIERUNG EINES SEGMENTS EINES MANIPULATORS

Title (fr)

SYSTÈME DE RÉGULATION ET PROCÉDÉ DE COMMANDE DE L'ORIENTATION D'UN SEGMENT D'UN MANIPULATEUR

Publication

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Application

EP 14723678 A 20140409

Priority

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- AT 2014050086 W 20140409

Abstract (en)

[origin: WO2014165889A1] The invention relates to a control system for controlling the orientation of a segment (5.3) of a manipulator, in particular of a large manipulator for self-propelled concrete pumps, the segment (5.3) being connected to a base (5.4) or a preceding segment (5.3) of the manipulator by means of a joint (5.5) and being pivotable at the joint (5.5) in relation to the base (5.4) or the preceding segment (5.3) about at least one axis of rotation by means of at least one control element (5.6), preferably at least one hydraulic control element, characterised in that the control system comprises at least: - a first sensor (4.1), which is arranged on a segment (5.3) connected to the joint (5.5) and provides a first measurement signal, which corresponds to a deformation of the segment (5.3) and is called a "deformation signal", - a second sensor (4.2, 4.3), which provides a second measurement signal, which corresponds to the spatial orientation of the segment (5.3) connected to the joint (5.5) and is called an "orientation signal", and - at least one control element (5.6) associated with the joint (5.5); and is designed to process the deformation signal and the orientation signal as input variables and to determine a control signal from the deformation signal and the orientation signal while taking into account a target orientation of the segment (5.3) associated with the joint (5.5), which control signal is fed to the associated control element (5.6).

IPC 8 full level

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Citation (search report)

See references of WO 2014165889A1

Citation (examination)

- EP 1882795 B1 20100616 - PUTZMEISTER CONCRETE PUMPS [DE]
- WO 02055813 A1 20020718 - SCHWING GMBH F [DE], et al

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