

Title (en)
PUMP TRUCK AND CONTROL METHOD AND DEVICE THEREOF

Title (de)
MISCHFAHRZEUG SOWIE STEUERVERFAHREN UND -VORRICHTUNG DAFÜR

Title (fr)
CAMION-POMPE ET PROCÉDÉ ET DISPOSITIF POUR SA COMMANDE

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Application
EP 11869207 A 20111018

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Abstract (en)
A pump truck and a control method and a control device thereof are provided. The control method for the pump truck comprises the following steps: acquiring the degrees of opening of four outriggers (1, 2) of the pump truck; determining the end points of the four outriggers (1, 2) of the pump truck according to the degrees of opening and connecting the end points of the four outriggers (1, 2) to determine the boundary (7) of the safe operating area of the pump truck; calculating the metacenter (6) of the whole pump truck according to the gravity of the base of the pump truck, the coordinates of the center of gravity of the base and the gravity of the whole pump truck; calculating the center of gravity (5) of the whole pump truck according to the gravity of the base of the pump truck, the gravity of the boom of the pump truck, the gravity of the whole pump truck, the coordinates of the center of gravity of the boom of the pump truck and the coordinates of the center of gravity of the base of the pump truck; calculating the safety coefficient of the pump truck according to the boundary (7) of the safe operating area, the metacenter (6) of the whole pump truck and the center of gravity (5) of the whole pump truck; and controlling the pump truck according to the safety coefficient. By the control method for the pump truck, the safety of the pump truck can be ensured when the outriggers of the pump truck cannot be opened completely. Fig. 1

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Cited by
DE102018204079A1; WO2016016305A1; JP2017530273A; EP3581538A4; US10099660B2; WO2019175400A1; WO2022200254A1; EP3175060B1

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