Title (en)
SPEED CONTROL FOR A REMOTELY CONTROLLED TRANSPORTING DEVICE

Publication
EP 0091030 B1 19860806 (DE)

Application
EP 83102964 A 19830324

Priority
DE 3213321 A 19820406

Abstract (en)
[origin: EP0091030A2] 1. A speed controller for a remotely-controlled transporting device, in particular an articulated ship-board crane (2), wherein a top control lever (6) is mounted on a base control lever (4) rotatable about a stationary swivel joint (3) by a swivel joint (5), and wherein respective drives (3a, 5a) are provided for the base control lever (4) and the top control lever (6), each equipped with a respective speed regulator and wherein a computer (12) supplied with control signals dependent upon the actual value (beta) of the angle of rotation between the top control lever and the base control lever and control signals (V1 ; V2) from a theoretical value regulator (13) which is adjustable by a control lever (13a) and which possesses potentiometers (13b; 13c) which are spatially displaced by 90 degrees and serve to form the control signals (V1 ; V2) which are proportional to the amount and the deflection in the x- and y-direction of a coordinate system in order to provide a control signal (nA) for the speed regulator (11) of the top control lever (6) and a control signal (nB) for the speed regulator (10) of the base control lever (4), where for the speed control the two potentiometers (13b; 14b) are connected to voltage and the output of the one potentiometer (13b) is connected to calculating modules (22, 24, 25; 45 to 50) in order to solve the equation : nA = - V1 /sin beta . K and the output of the other potentiometer (13c) is connected to calculating modules (23 to 19) in order to solve the equation : nB = -nA (1-cos beta) - V2 . K ; where nA signifies the speed of rotation of the base control lever ; nB signifies the speed of rotation of the top control lever ; V1 signifies the load speed component in the direction of the top control lever ; V2 the load speed component at right angles to the top control lever ; beta is the angle between the base control lever and the top control lever ; and K represents a constant.

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