

Title (en)

ELECTRO-HYDRAULIC ACTUATION CIRCUIT OF A HYDRAULIC ACTUATOR FOR AN ELECTRIFIED WORK VEHICLE AND CORRESPONDING METHOD

Title (de)

ELEKTROHYDRAULISCHE BETÄTIGUNGSSCHALTUNG EINES HYDRAULISCHEN AKTUATORS FÜR EIN ELEKTRIFIZIERTES ARBEITSFAHRZEUG UND ENTSPRECHENDES VERFAHREN

Title (fr)

CIRCUIT D'ACTIONNEMENT ÉLECTRO-HYDRAULIQUE D'UN ACTIONNEUR HYDRAULIQUE POUR UN VÉHICULE DE TRAVAIL ÉLECTRIFIÉ ET PROCÉDÉ CORRESPONDANT

Publication

EP 4124760 A1 20230201 (EN)

Application

EP 22185769 A 20220719

Priority

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Abstract (en)

An electro-hydraulic circuit includes a fixed displacement hydraulic pump (P) and an electric motor (M) arranged to drive the hydraulic pump in rotation, a recovery tank (T), a hydraulic actuator (BOOM, BUCKET), an open center proportional directional electro-valve (V1, V2) comprising a release condition in which it isolates the hydraulic actuator by hydraulically connecting the hydraulic pump with the recovery tank, a selector (SEL) to select a mode of execution of a repetitive operation of the actuator, a processing unit (STK) to receive the signals of the selector and an input device (Joystick) operated by a user and generate control signals for the electro-valve (V2) and for the engine (M), wherein a number of revolutions of the electric motor (M) is determined based on the selector and an amplitude of oscillation of the input device as it is manipulated by the user to perform the repetitive operation, and a frequency of the command signal for the electro-valve (V2) it is determined on the basis of a frequency acquired through the input device.

IPC 8 full level

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Citation (search report)

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- [A] WO 2005100701 A1 20051027 - VOLVO CONSTR EQUIP HOLDING SE [SE], et al
- [A] EP 1574625 A1 20050914 - VOLVO CONSTR EQUIP HOLDING SE [SE]
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Designated contracting state (EPC)

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