

Title (en)

FLOW RATE CONTROL DEVICE FOR VARIABLE DISPLACEMENT TYPE HYDRAULIC PUMP FOR CONSTRUCTION EQUIPMENT

Title (de)

STRÖMUNGSRATENREGLER FÜR EINE HYDRAULISCHE VERSTELLPUMPE FÜR EINE BAUMASCHINE

Title (fr)

DISPOSITIF DE COMMANDE DU DÉBIT POUR UNE POMPE HYDRAULIQUE DU TYPE À CYLINDRÉE VARIABLE POUR ENGIN DE CHANTIER

Publication

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Application

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Priority

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Abstract (en)

The present invention pertains to a hydraulic pressure control device of a variable displacement type hydraulic pump for construction equipment, wherein operable sections of operation systems are formed in a wide manner while the hydraulic pump discharges a relatively small flow rate compared with the operation amount of the respective operation systems in the case of complex operations, so as to improve the pressure loss and the fuel ratio of the hydraulic pump. The device includes a flow rate controller, which is preferably connected to an operation amount detecting means and a swash plate control device, and receives operation signals from the operation system of a control device that are detected by the operation amount detecting means so as to control the discharge flow rate of the hydraulic pump. In the case of the complex operations, the flow rate controller pre-determines the required flow rate of an actuator for the respective operation systems via the operation signals of the operation systems and subsequently operates the square root of the sum of the squares of the respective required flow rates so as to determine the discharge flow rate of the hydraulic pump, thereby controlling the swash plate control device.

IPC 8 full level

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