

Title (en)  
CONTROL ARRANGEMENT FOR AT LEAST TWO HYDRAULIC CONSUMERS AND PRESSURE DIFFERENTIAL VALVE FOR SAID CONTROL ARRANGEMENT

Title (de)  
STEUERANORDNUNG FÜR WENIGSTENS ZWEI HYDRAULISCHE VERBRAUCHER UND DRUCKDIFFERENZVENTIL DAFÜR

Title (fr)  
DISPOSITIF DE COMMANDE POUR AU MOINS DEUX CONSOMMATEURS HYDRAULIQUES, ET SOUPAPE A PRESSION DIFFERENTIELLE CORRESPONDANTE

Publication  
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Application  
**EP 00906203 A 20000115**

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Abstract (en)  
[origin: DE19904616A1] The invention relates to a control arrangement which is used to supply pressure means to at least two hydraulic consumers and which has a demand-regulated variable displacement pump which can be regulated by a pump regulator in dependence on the highest load pressure of the hydraulic consumers being actuated; two adjustable proportioning diaphragms, the first of which is located between a supply line leading from the variable displacement pump and a first hydraulic consumer and the second of which is located between the supply line and a second hydraulic consumer; and two pressure balances, the first of which is connected downstream of the first proportioning diaphragm and the second of which is connected downstream of the second proportioning diaphragm and whose regulating piston is subjected to the pressure in the opening direction after the corresponding proportioning diaphragm. In order to prevent a temporary surplus of the variable displacement pump from passing through to the hydraulic consumers with a control arrangement of this type, the regulating pistons of the pressure balances can be subjected to a control pressure which is available in a reverse control chamber, in the closing direction. The control pressure is derived from the supply pressure present in the supply line by means of a valve device and changes with the supply pressure. The invention also relates to a pressure differential valve with a small construction which ensures that an increased pressure at its entrance is followed by a pressure at its exit with a fixed pressure difference. Together with a restricted relief of the output to the tank, a pressure differential valve of this type ensures that there is always a fixed pressure difference between the output pressure and the input pressure. A valve of this type is especially suitable for use in the inventive control arrangement.

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