

Title (en)  
HYDRAULIC SYSTEM

Publication  
**EP 0279362 B1 19901205 (EN)**

Application  
**EP 88102046 A 19880212**

Priority  
US 1631887 A 19870219

Abstract (en)  
[origin: EP0279362A1] A crawler loader or other large industrial earthmoving machine has a hydraulic propulsion system comprising at least two hydraulic motors (26, 28) which are powered from a pump (44) to drive a common load, namely its tracks (24). Each motor (26, 28) of the hydraulic propulsion system is provided with two compensating valve assemblies (30, 32 and 34, 36). Each compensating valve assembly has a compensating spool (48, 50, 52, 54) and a shuttle spool (56, 58, 60, 62) to provide accurate control of the hydraulic motors (26, 28). In each pair of compensating valve assemblies (30, 32 and 34, 36), there is a forward compensating valve assembly (30, 34) and a backward valve assembly (32, 36) respectively controlling forward and backward movement of the associated hydraulic motor (26, 28). Between both forward compensating valve assemblies (30, 34) and the respective hydraulic motors (26, 28), the compensating valve assemblies (30, etc.) are fluidically coupled to one another by a small hydraulic communication line (98) that better equalizes hydraulic fluid flow to the motors (26, 28) and prevents domination of one forward compensating valve assembly over the other. Similarly, the backward compensating valve assemblies (32, 36) are provided with an identical small hydraulic communication line (100) accomplishing the same results.

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