

Title (en)

Fluid motor control circuit with fast-acting quick-drop valve.

Title (de)

Steuerung für Hydraulikmotoren mit schnell ansprechendem Eilgangventil.

Title (fr)

Circuit de commande pour moteurs hydrauliques avec soupape de descente rapide à action rapide.

Publication

EP 0010699 A1 19800514 (EN)

Application

EP 79104041 A 19791019

Priority

US 95677578 A 19781101

Abstract (en)

A control circuit (11, 11b) for a fluid pressure-operated cylinder (13, 13b) or the like has a quick-drop valve (12, 12b) which enables faster gravity-assisted lowering of a load (16, 16b) and which quickly shifts to a power-down mode of operation when dropping of the load by gravity ceases. Means (47, 47b, 54, 54b, 56, 56b) sensing flow rate to the head end of the cylinder and sensing cavitation in the head end initiate the quick-drop operation at which the discharge path from the cylinder back to tank is totally blocked and all discharge from the rod end is recirculated to the head end. When resistance to further lowering of the load occurs, the quick-drop valve responds by shifting to block communication between ends of the cylinder while establishing a rod end discharge path to tank to initiate a power-down mode of operation quickly and without lag or bounce.

IPC 1-7

F15B 13/02; E02F 3/86

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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