

Title (en)
HYDRAULIC CONTROL DEVICE

Publication
EP 0393345 A3 19910410 (DE)

Application
EP 90104632 A 19900312

Priority
DE 3912743 A 19890419

Abstract (en)
[origin: JPH02296001A] PURPOSE: To achieve high efficiency and to enable safe operation against overload by use of simple constitution by enabling hollow and intermediate pistons to be coupled together for the transmission of rotation via a decelerating or accelerating device through the setting of desired values and the response to actual values. CONSTITUTION: When a connection is for rightward rotation, hollow and intermediate pistons 4, 6 are twisted by an angle (x) with respect to each other. Then a pressure medium flows from P to B through a space between a groove 20b and a through hole 9 and further from A to T through a space between a groove 21b and a through hole 11. Therefore, a specified quantity of oil flows to a hydraulic motor 3 and returns therefrom. Also, reciprocating flow to and from the motor 3 is increased by further rightward movement of the piston 6, and when the specified flow corresponds to the drive output of the motor 3, the pistons 6, 4 rotate at the same time, so that a set flow is held constant. When the connection is for leftward rotation, the pistons 4, 6 are twisted by an angle (y) with respect to each other. Then the medium flows from P to A via a space between a groove 21a and the through hole 11 and further from B to T via the space between a groove 20a and the through hole 9, so that a specified flow of oil flows through the motor 3, which in turn rotates in the opposite direction.

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F15B 9/14

IPC 8 full level
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CPC (source: EP US)
F15B 9/14 (2013.01 - EP US); **Y10T 137/86654** (2015.04 - EP US); **Y10T 137/86662** (2015.04 - EP US)

Citation (search report)
• [X] US 2349641 A 19440523 - TUCKER WARREN R, et al
• [A] EP 0102884 A1 19840314 - BENDIX CORP [US]
• [A] GB 787499 A 19571211 - LYNN LESLIE CHARLSON
• [A] EP 0141874 A1 19850522 - HERMES HANS STEUERUNGSTECH [DE]

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