

Title (en)

CONTROL DEVICE FOR THE CONTINUOUS DRIVE OF A HYDRAULIC PILOT MOTOR

Title (de)

STEUEREINRICHTUNG FÜR DIE KONTINUIERLICHE BEWEGUNG EINES HYDRAULISCHEN STELLMOTORS

Title (fr)

DISPOSITIF DE COMMANDE DESTINEE AU MOUVEMENT CONTINU D'UN MOTEUR D'UN SERVOMOTEUR HYDRAULIQUE

Publication

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Application

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Priority

EP 0109264 W 20010810

Abstract (en)

[origin: WO03014576A1] The invention relates to a control device for a hydraulic pilot motor (27), which is characterized by the following: two throttle devices (D1, D4) are disposed in series between the pump (P) and the tank (T), between which a line (LA) branches off that leads to the pilot motor; one of the throttle devices consists of a controlled throttle (D1) with a plunger (3) that carries on one end a valve head that delimits an annular gap (17) between a feed channel (14) and a discharge channel (13); a pressure drop at the annular gap (17) can be continuously controlled by means of a throttle needle (9) which is disposed on the other end of the plunger (12) in a hydraulic control path; said control path extends from the feed channel (14) via the throttling orifice (8) to the tank (T) and is guided within the plunger (3) by a pilot bore (12). When the control device functions according to the principle of open center, an undesired leakage fluid flow across the pilot bore (12) to the tank (T) occurs when the annular gap (17) is completely open. In order to avoid such a leakage flow, one end of the pilot bore (12) is disposed at the annular gap (17) in the area of the feed channel (14) in such a manner that it remains open even when the annular gap (17) is closed. The other end of the pilot bore (12) is disposed on the other end of the plunger (3) in an area where the plunger (3) abuts against a stop surface (60) when the controlled throttle (D1) is completely open, thereby automatically closing said other end.

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