

Title (en)
OUTPUT REGULATION WITH LOAD SENSING

Title (de)
LEISTUNGSREGELUNG MIT LOAD-SENSING

Title (fr)
REGULATION DE PUISSANCE AVEC DETECTION DE CHARGE

Publication
EP 0856107 B1 19990908 (DE)

Application
EP 96934569 A 19961008

Priority
• DE 19538649 A 19951017
• EP 9604355 W 19961008

Abstract (en)
[origin: DE19538649A1] A device is disclosed for regulating the output of at least one variable displacement pump (1) driven by a motor (6) and forcing a medium into a working line. This is done by altering the displaced volume of the pump by means of an adjusting device (7) to which an adjusting pressure (20) can be applied and which is biased in the direction of maximum displaced volume. The proposed device has a control valve (18) allocated to the adjusting device (7). The control valve can be subjected to a counter-pressure corresponding to the operating pressure in the operating line, the control valve (18) responding when the control pressure exceeds the counter-pressure, and the adjusting device (7) is acted on by the adjusting pressure to effect a reduction in the displaced volume of the variable displacement pump (1) in such a way that the product of operating pressure and displacement volume is constant. A device (25) is provided to determine the position of the adjusting device (7) and send a position signal proportional to that position to an electronic control unit (40). Also provided is a pressure limiting valve (42) by which the maximum counter-pressure in the control valve (18) can be set. The electronic control unit (40) controls the pressure limiting valve (42) in accordance with the position signal from the position sensor (25). Also disclosed is a method of controlling the output of a variable displacement pump (1) driven by a motor (6) and forcing a medium into an operating line.

IPC 1-7
F04B 49/06

IPC 8 full level
F04B 49/06 (2006.01); **F04D 15/00** (2006.01)

CPC (source: EP KR US)
F04B 49/00 (2013.01 - KR); **F04B 49/065** (2013.01 - EP US); **F04B 2205/05** (2013.01 - EP US); **F04B 2205/06** (2013.01 - EP US);
F04B 2205/09 (2013.01 - EP US)

Cited by
DE10006659B4; CN104989692A

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
DE 19538649 A1 19970424; **DE 19538649 C2 20000525**; DE 59603019 D1 19991014; EP 0856107 A1 19980805; EP 0856107 B1 19990908;
JP 3909356 B2 20070425; JP H11513771 A 19991124; KR 100337565 B1 20020718; KR 19990036160 A 19990525; US 6048177 A 20000411;
WO 9714889 A1 19970424

DOCDB simple family (application)
DE 19538649 A 19951017; DE 59603019 T 19961008; EP 9604355 W 19961008; EP 96934569 A 19961008; JP 51547997 A 19961008;
KR 19980700828 A 19980204; US 5156198 A 19980413