

Title (en)

CONTROL DEVICE FOR A VARIABLE INTAKE VOLUME PUMP

Title (de)

STEUEREINRICHTUNG FÜR EINE FÜLLGRAD-VERSTELLPUMPE

Title (fr)

DISPOSITIF DE COMMANDE POUR UNE POMPE A VOLUME DE REMPLISSAGE VARIABLE

Publication

EP 0678166 B1 19980812 (DE)

Application

EP 94930902 A 19941107

Priority

- CA 2151518 A 19950607
- CH 9400215 W 19941107
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Abstract (en)

[origin: US5701873A] PCT No. PCT/CH94/00215 Sec. 371 Date Jul. 10, 1995 Sec. 102(e) Date Jul. 10, 1995 PCT Filed Nov. 7, 1994 PCT Pub. No. WO95/13474 PCT Pub. Date May 18, 1995A control device for a filling-ratio adjusting pump with at least one displacement space works on the suction-throttle principle with a positive variation in volume of the displacement space or displacement spaces and is intended inter alia particularly for common-rail diesel injection systems. It allows an exact, precise and highly dynamic control of the filling-ratio adjusting pump at low outlay, without the system being impaired by undesirable cavitation. Located on the suction side of the pump is at least one throttling 2/2-way valve (21, 21a, 21b; 134; 51, 52, 53, 54; 81; 103) actuated by pressure difference. Either such a 2/2-way valve can be used for a group of displacement spaces or for the entire pump or a respective valve of this type can be inserted in front of each individual displacement space. The pressure-difference control of the or each 2/2-way valve takes place via an adjusting device (27; 150) which is arranged on the inflow side of the 2/2-way valve and which is designed either as a throttling valve or as a flow-regulating valve.

IPC 1-7

F04B 49/00; F02M 59/34; F02M 59/36; F04B 49/22

IPC 8 full level

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CPC (source: EP US)

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Cited by

JP2009516804A; FR2914959A1; EP1980744A1; DE19946610B4; FR2798961A1; DE19946610A1; DE102007060262A1; US7603987B2; WO2007060285A1

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