

Publication

EP 0581156 A3 19940316

Application

EP 93111507 A 19930717

Priority

DE 4224469 A 19920724

Abstract (en)

[origin: EP0581156A2] A hydraulic directional control valve (10) of piston slide valve construction is proposed, the volumetric-flow profile of which has a quadratic function over the entire range of modulation. The longitudinal slide valve (12) has a control notch (32), the start of which produces through a triangular shape a quadratic volumetric-flow profile during small volumetric flows and the opening cross-section of which produces through multidimensional widening a volumetric-flow profile according to a function of the fourth order, which compensates for the housing effects, occurring during increasing pressure-medium flows, to such an extent that an essentially quadratic profile, constantly increasing over the entire desired-value range, of the volumetric-flow characteristic (41) is obtained. <IMAGE>

IPC 1-7

F15B 13/02

IPC 8 full level

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CPC (source: EP)

F15B 13/0402 (2013.01); **F15B 2013/008** (2013.01)

Citation (search report)

- [AD] DE 2717384 A1 19781026 - REXROTH GMBH G L
- [AD] DE 8801058 U1 19880310
- [A] DE 3226809 A1 19840119 - BOSCH GMBH ROBERT [DE]
- [A] DE 3737392 A1 19890524 - BOSCH GMBH ROBERT [DE]
- [A] DE 3504268 A1 19860814 - HELLER HYDRAULIK GMBH [DE]
- [A] DE 4040523 A1 19910704 - DANA CORP [US]
- [A] DE 3915584 A1 19901115 - SIEMS VOLKER [DE]

Cited by

DE102009041859A1; EP1184576A1; US11680649B2; EP4001669A1

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DE 4224469 A1 19940127; DE 59306565 D1 19970703; EP 0581156 A2 19940202; EP 0581156 A3 19940316; EP 0581156 B1 19970528; JP H06185659 A 19940708

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