

Title (en)
Hydraulic directional control valve of piston slide valve construction

Title (de)
Hydraulisches Wegeventil in Kolbenschieber-Bauweise

Title (fr)
Distributeur hydraulique type robinet à piston

Publication
EP 0581156 B1 19970528 (DE)

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
F16K 11/07 (2006.01); **F15B 13/02** (2006.01); **F15B 13/04** (2006.01); **F16K 31/122** (2006.01)

CPC (source: EP)
F15B 13/0402 (2013.01)

Cited by
DE102009041859A1; EP1184576A1; EP4001669A1; US11680649B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 4224469 A1 19940127; DE 59306565 D1 19970703; EP 0581156 A2 19940202; EP 0581156 A3 19940316; EP 0581156 B1 19970528; JP H06185659 A 19940708

DOCDB simple family (application)
DE 4224469 A 19920724; DE 59306565 T 19930717; EP 93111507 A 19930717; JP 18376093 A 19930726