

Title (en)

Directional control valve to obtain in a hydraulic appliance the alternative motion of a piston operating to charge and fire a tool, specially suitable for hydraulic hammers.

Title (de)

Steuerventil für den hin- und herbewegenden Kolben einer hydraulischen Schlagvorrichtung, insbesondere für einen hydraulischen Hammer.

Title (fr)

Valve pour commander le mouvement alternatif d'un piston de machine hydraulique à percussion, en particulier pour marteaux hydrauliques.

Publication

EP 0085279 A1 19830810 (EN)

Application

EP 82830014 A 19820122

Priority

EP 82830014 A 19820122

Abstract (en)

The directional control valve to apply to a hydraulic appliances working with incompressible fluid, is composed of a cylindrical valve i.e. a sleeve 5 sliding in a cylindrical chamber 1, that acts as a cylinder to the piston 7 when its outside part B, or also its intermediate part A in an execution suitable to different application, penetrates inside the sleeve 5 or comes out of it. The control valve action is caused by the hydraulic fluid when the piston moves so that it comes out or by the fluid which the piston presses when, being the exhaust ports still opened, it moves in order to penetrate into the sleeve valve 5. The axial travel reversals of the control valve start every time the piston, by its circular edge 7c, gets a tightness touch with distributor's circular edge 5d. This control valve permits large tightnesses of exhaust and supply ports of hydraulic fluid so that the piston 7 avoid to do this by means of its lateral surfaces, as other control valve, and therefore the device is not subjected to wear. For its simplicity and very good functionality this directional control valve cuts manufacturing and maintenance costs; it can be, moreover, applied both to free gas recharging hammers and hammers directly actuated by under pressure hydraulic fluid.

IPC 1-7

B25D 9/12

IPC 8 full level

B25D 9/14 (2006.01); **B25D 9/20** (2006.01)

CPC (source: EP)

B25D 9/145 (2013.01); **B25D 9/20** (2013.01); **B25D 2209/002** (2013.01); **B25D 2209/005** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0085279 A1 19830810; EP 0085279 B1 19860709; AT E20647 T1 19860715; DE 3271910 D1 19860814

DOCDB simple family (application)

EP 82830014 A 19820122; AT 82830014 T 19820122; DE 3271910 T 19820122