

Title (en)  
HYDRAULIC CONTROL APPARATUS

Publication  
**EP 0073887 B1 19870204 (DE)**

Application  
**EP 82105496 A 19820623**

Priority  
DE 3135273 A 19810905

Abstract (en)  
[origin: EP0073887A2] 1. Hydraulic control apparatus for an actuator cylinder (2) or the like, comprising a control slider (1) which is displaceable axially into a plurality of control positions and which is loaded into a neutral position by a return spring and is securable by a spring-loaded detent arranged substantially radially thereto, which slider, by means of control grooves and edges, opens and blocks the pressure fluid admission and return and is capable of being held fast in a working position for charging the actuator cylinder (2) with pressure fluid by engagement of the detent (6) in detent engagement means (18) on the control slider (1), and upon which slider a seating valve (31) actuated in the opening direction by a plunger (14) acts radially through the plunger (14), which valve is seated in the cylinder connection (28) and is loaded in the closing direction by the cylinder pressure and by spring force, there being also a relief valve (37, 38) in the seating valve (31) which is loaded in the same closing direction and which is actuated in the opening direction by the control slider (1) through the plunger (14) on each occasion before the seating valve (31), while furthermore a valve (21) opening at a pre-determined working pressure is provided for loading the release piston of the detent (6), characterised in that the detent (6) is axially and displaceably penetrated by the plunger (14) of the seating and relief valves (31 and 37, 38) and is formed as a piston which is hydraulically loadable in the release direction, that the control slider (1) comprises, for the plunger (14) of the seating and relief valves (31 and 37, 38), a control groove (16) extending arcuately in the longitudinal direction in a radial plane for the generation of the axial movements of the plunger (14), and that the detent (6), the seating valve (31) and the relief valve (37) are provided with mutually independently-acting springs (8, 33, 38).

IPC 1-7  
**F15B 13/01**

IPC 8 full level  
**F15B 13/01** (2006.01)

CPC (source: EP)  
**F15B 13/015** (2013.01)

Citation (examination)  
DE 2849704 A1 19800529 - KLOECKNER HUMBOLDT DEUTZ AG

Cited by  
EP0384157A3; CN113776600A; GB2181656A; US4711263A; GB2181656B

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