

Title (en)  
Control device for motor pumps

Title (de)  
Steuervorrichtung für Motorpumpenaggregat

Title (fr)  
Dispositif de commande de groupe motopompe

Publication  
**EP 1775476 A1 20070418 (EN)**

Application  
**EP 05022404 A 20051013**

Priority  
EP 05022404 A 20051013

Abstract (en)  
An automatic mechanical device, suitable for controlling the operation of an electric pump responsive to the flow and to the pressure within the device, comprising a hollow body (63) comprising an upper shell (40) and a lower shell (41), having an inlet (20) and an outlet (21). On the external surface of the upper shell (40) means responsive to the pressure (60) are connected comprising a first control body (1) pushed towards said hollow body (63) by a return spring (14). Said first control body (1) is operated by a membrane (16) located outside to the hollow body (63) and perceives the pressure of the liquid within the hollow body (63) through an opening engaged by a check valve (52) and a calibrated hole (53) that time a hydraulic delay of the pressure. The first control body (1) has a stepped protrusion (7) that operates a control sphere (8) that in turn operates a lever (9) having at the end a tip (11) capable to operate a tip (10) belonging to a second lever (12) that, rotating, is capable to operate a switch (13) that starts the pump. The device comprises means responsive to the flow, having a second control body (2) with function of check valve, having a magnet (3) that operates a magnet (4) pivotally connected outside, when the magnet (3) is approached to the magnet (4). The magnet (4) operates a lever (5) having an end (62) capable of pushing on the electric switch (13) that starts the pump.

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)  
• [A] EP 0528726 A1 19930224 - POMPES SALMSON SA [FR]  
• [A] EP 0663553 A1 19950719 - CO GE S R L [IT]  
• [A] EP 0819851 A2 19980121 - GARDENA KRESS & KASTNER GMBH [DE]  
• [A] EP 0459434 A2 19911204 - VALDES OSVALDO [CL]  
• [A] EP 1074745 A1 20010207 - ENG & MARK S R L [IT]

Cited by  
EP2990653A1; CN103629096A; EP2584109A1; CN105386967A

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Designated extension state (EPC)  
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