

Title (en)
Locking device for fluid actuator.

Title (de)
Bremsseinrichtung für Druckmittelzylinder.

Title (fr)
Dispositif de verrouillage pour vérin à fluide.

Publication
EP 0283694 A1 19880928 (DE)

Application
EP 88101899 A 19880210

Priority
DE 3709164 A 19870320

Abstract (en)
1. Braking device for pressure medium cylinders, especially cylinders (26) without a piston rod, having a braking element (9, 9') which can be operated on by pressure medium, this pressure medium operation being monitored by a switch valve (8, 8'), characterised in that between a pressure medium source (1) and the switch valve (8, 8'), constructed at least as a 3/2-way valve, there is arranged a pressure medium reservoir (4) which can be charged by means of a non-return valve (3) from the pressure medium source, in that the pressure of the pressure medium source (1) acts on a pressure monitor (5) which, when a first high pressure threshold is not reached, switches the switch valve (8, 8') so that it opens an otherwise closed connection from the pressure medium reservoir (4) to the brake element (9, 9'), in that a spring-loaded cylinder (13), acted on by the pressure medium reservoir (4), is provided which, when acted on by a pressure which falls below a second mean pressure threshold, activates a mechanical movement lock (14, 16) arranged in parallel to the braking element (9, 9'), and in that the braking element (9, 9') is designed to maintain the nominal load of the pressure medium cylinder until its actuation pressure falls below a third, low pressure threshold.

Abstract (de)
Die Bremsseinrichtung umfaßt auf Reibwirkung basierende Bremsorgane 9, welche bei Ausfall einer Druckmittelversorgung aus einem Druckmittelspeicher 4 zum Zuspinnen druckbeaufschlagt werden. An den Druckmittelspeicher 4 ist ein Federspeicherzylinder 13 angeschlossen, dessen Kolbenstange 14 bei durch Undichtheiten bewirktem Druckabfall im Druckmittelspeicher 4 ausfährt und dabei durch Eingriff beispielsweise in die Löcher 17 einer Lochleiste 16 eine formschlüssige Verriegelung bewirkt. Die Bremsseinrichtung gewährleistet eine hohe Sicherheit gegen unbeabsichtigte Bewegungen des Druckmittelzylinders bei Störfällen.

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IPC 8 full level
F15B 15/08 (2006.01); **F15B 15/26** (2006.01)

CPC (source: EP)
F15B 15/082 (2013.01); **F15B 15/261** (2013.01); **F15B 15/262** (2013.01); **F15B 15/265** (2013.01)

Citation (search report)
• [A] US 3033171 A 19620508 - ENGELBRECHT JOHN H, et al
• [A] US 2932282 A 19600412 - MCKINLEY ROE L, et al
• [A] US 3654833 A 19720411 - GRIFFITHS THOMAS C

Cited by
CN102392845A; EP0442859A1

Designated contracting state (EPC)
AT BE CH DE GB IT LI NL SE

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EP 0283694 A1 19880928; **EP 0283694 B1 19890726**; AT E45012 T1 19890815; DE 3709164 A1 19880929; DE 3860001 D1 19890831

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EP 88101899 A 19880210; AT 88101899 T 19880210; DE 3709164 A 19870320; DE 3860001 T 19880210