

Title (en)
CYLINDER WITH A ROD-LOCK DEVICE

Title (de)
ZYLINDER MIT STANGENVERRIEGLUNGSVORRICHTUNG

Title (fr)
CYLINDRE À L'AIDE D'UN DISPOSITIF DE FERMETURE À BARRES

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Application
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Abstract (en)
The present invention relates to a pneumatically or hydraulically actuated cylinder (1; 100), comprising a cylinder liner (2) and a cylinder piston (5). The cylinder liner (2) is delimited at the ends by a front head (3b) and by a rear head (3a) so as to form a cylinder chamber (4). The cylinder piston (5) is provided with a rod (6), is housed in the cylinder chamber (4) and can be actuated by means of a control fluid so as to move in a translational manner along an axis of translation (X). The cylinder (1; 100) is equipped with a rod-lock device (7) comprising a rod-lock piston (8) that extends between a first end (8a) and a second end (8b). The rod-lock piston (8) is slidably housed in a fluid-tight manner in a rod-lock piston seat (9) made in one of either the front (3b) or rear (3a) head. The rod-lock piston seat (9) extends in a direction that is orthogonal with respect to the axis of translation (X). A rod engagement through hole (10) is made in the rod-lock piston (8), through which the rod (6) passes. By means of the control fluid, the rod-lock piston (8) can move in a translational manner at least from an active position in which the rod is axially locked, to an inactive position in which the rod (6) can slide freely into the rod engagement hole (10). The rod-lock piston seat (9) is in fluidic communication with the cylinder chamber (2) so that the control fluid acting on the rod-lock piston (8) causes, following the passage of the rod-lock piston from the active position to the inactive position, the translational movement of the cylinder piston (5) in the cylinder chamber (4).

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- [XYI] US 2932370 A 19600412 - LUDWIG KRAUS, et al
- [I] DE 3735103 A1 19890427 - BOSCH GMBH ROBERT [DE]
- [I] DE 102011015086 B3 20120816 - FESTO AG & CO KG [DE]
- [I] EP 1669612 A2 20060614 - BOSCH REXROTH TEKNIK AB [SE]
- [Y] DE 1751159 A1 19710422 - RUDOLF GEIGER PRAEZ S DREH UND
- [A] DE 202005018038 U1 20060112 - FESTO AG & CO [DE]

Cited by
IT202100004592A1

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