

Title (en)
Linear cylinder unit with locking means

Title (de)
Linearzylindereinheit mit Verriegelung

Title (fr)
Vérin avec système de verrouillage

Publication
EP 1669612 A2 20060614 (EN)

Application
EP 05111866 A 20051208

Priority
DE 102004059201 A 20041209

Abstract (en)
Linear cylinder unit (1), in particular a pressure cylinder (2), comprising a cylinder tube (3), at least one end cover member (4), a piston (5), which is axial displaceable within said cylinder tube (3), a piston rod (6), which is connected to said piston (5) and at least one piston locking unit (7), whereas said piston locking unit (7) is arranged on at least one end of the body of the said pressure cylinder (2), whereas the piston locking unit (7) comprises a locking element (8), which is linear movable in a perpendicularly direction to the piston rod (6), in order to achieve a form- fitted connection between the piston rod (6) and the locking element (8), whereas the said locking element (8) features a plane profile including a bore (10), where the piston rod (6) is guided through, whereas the edge of the bore (10) engages in at least one recess (18) arranged in the said piston rod (6), in order to block the movement of the piston rod (6). By this invention the objective can be reached, to provide a linear cylinder locking unit, which offers a high accessibility, an optional removability and which features the transmission of high blocking forces through a high contact area and with a high stiffness.

IPC 8 full level
F15B 15/26 (2006.01)

CPC (source: EP)
F15B 15/261 (2013.01)

Citation (applicant)
• US 6598513 B2 20030729 - YABE TOSHIHARU [JP]
• WO 0192732 A1 20011206 - RAZORBACK VEHICLES CORP LTD [AU], et al

Cited by
CN102011764A; CN103148050A; CN109798280A; CN105422548A; CN104006022A; CN105114396A; EP3736453A1; IT201900006566A1; CN113294402A; IT202100004592A1; EP4063071A1; IT202100007511A1; WO2009005361A1

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