

Title (en)  
Rodless working cylinder.

Title (de)  
Kolbenstangenloser Arbeitszylinder.

Title (fr)  
Cylindre actionneur sans tige.

Publication  
**EP 0135041 A1 19850327 (DE)**

Application  
**EP 84108579 A 19840720**

Priority  
DE 3328786 A 19830810

Abstract (en)  
1. Rodless working cylinder with a power take-off (3) which can be driven, by a piston arranged displaceably in a cylinder tube (5), directly by means of a power bridge or indirectly by means of a rope, band or the like, there being a guide rail (13 ; 2) which extends parallel to the cylinder tube (5) and with which rolling means (1a, 1b ; 12a, 12b) connected to the power take-off (3) interact, characterized in that the cylinder tube (5) is made multisurfaced on the outside, in that a flat guide rule (13 ; 2) is fastened to at least one surface in such a way that its longitudinal sides project beyond the cylinder tube (5), and in that mounted in a cover plate (3a) connected to the power take-off are concave or convex rollers (1a, 1b ; 12a, 12b) which roll on the correspondingly shaped longitudinal sides of the guide rule (13, 2).

Abstract (de)  
Es wird anstelle der bei Arbeitszylindern üblichen Gleitführung der Kraftabnahme auf oder in dem Zylinderprofil eine Rollen- und/oder Kugelaufbuchsenführung (13, 1a, 1b) vorgeschlagen und damit die Nachteile der Gleitführung, wie z.B. Abrieb, Losbrechen etc. mit Sicherheit vermieden, wobei zum exakten Positionieren der Kraftabnahme eine Brems- und Positioniereinrichtung vorgesehen sein kann.

IPC 1-7  
**F15B 15/08**

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

CPC (source: EP)  
**F15B 15/084** (2013.01)

Citation (search report)  
• [X] DE 2908605 A1 19800911 - MUELLER GEB KOTZ ROSA  
• [XD] DE 3124915 A1 19830113 - KAISER SIEGMUND H ING GRAD [DE]  
• [XP] DE 3229305 A1 19840209 - KNORR BREMSE GMBH [DE]  
• [A] DE 707679 C 19410630 - FRANCESCO MERZ  
• [A] Soviet Inventions Illustrated Week E 14, 19 Mai 1982, Section Q57 & SU-A-840525  
• [A] ÖLHYDRAULIK UND PNEUMATIK, Band 24, November 1980, Mainz; "Pneumatikzylinder ohne Kolbenstange", Seite 104

Cited by  
EP0263215A1; US5311810A; US5279207A; EP0536799A1; US5275088A; FR2639081A1; US5868499A; EP0828083A3; US6336393B1; US8091468B2; WO2007121808A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 0135041 A1 19850327; EP 0135041 B1 19880608**; DE 3328786 A1 19850228; DE 3471980 D1 19880714

DOCDB simple family (application)  
**EP 84108579 A 19840720**; DE 3328786 A 19830810; DE 3471980 T 19840720