

Title (en)  
Actuation cylinder

Title (de)  
Arbeitszylinder

Title (fr)  
Vérin

Publication  
**EP 0961036 A3 20011219 (DE)**

Application  
**EP 99890157 A 19990519**

Priority  
AT 92098 A 19980529

Abstract (en)  
[origin: EP0961036A2] The working cylinder, using pressure to operate a piston, is a cylindrical tube (1) with end pieces (2,3) with an inner sliding piston (5) operated by pressure. The piston rod (6) extends through the cylinder housing, to operate linked components. A spring is fitted at the piston or piston rod and one end piece. The piston rod (6) is a hollow tube, to take at least part of the spring (7) axially within it, and be secured to the facing end piece (3).

IPC 1-7  
**F15B 15/14**

IPC 8 full level  
**F15B 15/14** (2006.01)

CPC (source: EP)  
**F15B 15/1457** (2013.01); **F15B 15/1476** (2013.01)

Citation (search report)

- [X] DE 3904644 C1 19900329
- [A] GB 1509714 A 19780504 - FESTO MASCHF STOLL G
- [A] DE 4126221 A1 19930211 - FESTO KG [DE]

Cited by  
AT505160B1; AT505440B1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 0961036 A2 19991201; EP 0961036 A3 20011219; EP 0961036 B1 20031029**; AT 406600 B 20000626; AT A92098 A 19991115; DE 59907503 D1 20031204; ES 2211024 T3 20040701; HU 222216 B1 20030528; HU 9901763 D0 19990728; HU P9901763 A2 20000428; HU P9901763 A3 20020228; PT 961036 E 20040331

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