

Title (en)  
SCREW-ON PRESSURE MEDIUM-ACTUATED WORKING CYLINDER WITH CLOSURE COMPONENTS FOR COUPLING THE CYLINDER TUBE

Title (de)  
VERSCHRAUBBARER DRUCKMITTELBETÄTIGTER ARBEITSZYLINDER MIT VERSCHLUSSTEILEN ZUR KOPPLUNG DES ZYLINDERROHRES

Title (fr)  
CYLINDRE DE TRAVAIL VISSABLE ACTIONNE PAR UN FLUIDE DE PRESSION AVEC ELEMENTS DE FERMETURE POUR ACCOUPLEMENT DU TUBE CYLINDRIQUE

Publication  
**EP 0880652 B1 20020828 (DE)**

Application  
**EP 97914049 A 19970104**

Priority  
• DE 9700039 W 19970104  
• DE 29602088 U 19960207

Abstract (en)  
[origin: US6196112B1] The fluid pressure actuator includes a cylinder tube for at least one piston and a closure element provided on a first end of the cylinder tube. Respective sealing chamfers are provided on the closure element and on the first end of the cylinder tube or on a manufactured insert between the closure element and the first end of the cylinder tube. Each sealing chamfer has a slope between 6 degrees and 12 degrees. Respective screw threads are provided on the closure element and the first end of the cylinder tube, near the corresponding sealing chamfers. Portions of the closure element or the manufactured insert and the first end of the cylinder tube including the sealing chamfers are made of a material having a modulus of elasticity in a range between 60\*103 N/mm2 and 250\*103 N/mm2 plus or minus 10%, and an elastic limit in a range between 200 and 1050 N/mm2, over a temperature range of 0° C. to 200° C., so that, when the closure element is screwed on the first end of the cylinder tube by respective screw threads, the sealing chamfers are pressed on each other and thus interact to prevent leakage of fluid between the closure element and the first end of the cylinder tube. The sealing chamfers and the screws threads are preferably formed in non-cutting or non-milling operations and the sealing chamfers have a surface roughness that does not exceed 0.4 microns.

IPC 1-7  
**F15B 15/14; F16J 10/02**

IPC 8 full level  
**F15B 15/14** (2006.01); **F16J 10/00** (2006.01); **F16J 10/02** (2006.01)

CPC (source: EP US)  
**F15B 15/1442** (2013.01 - EP US)

Cited by  
DE202016007691U1; DE202012008998U1; DE202012009001U1; WO2014044240A1; US9989075B2; WO2018113810A1; US10865815B2

Designated contracting state (EPC)  
AT DE FR GB IT NL

DOCDB simple family (publication)  
**US 6196112 B1 20010306**; AT E223001 T1 20020915; CA 2245764 A1 19970814; CA 2245764 C 20021008; CN 1088806 C 20020807; CN 1210578 A 19990310; CZ 240698 A3 19990512; CZ 296713 B6 20060517; DE 29602088 U1 19960404; DE 59708068 D1 20021002; EP 0880652 A1 19981202; EP 0880652 B1 20020828; HK 1018497 A1 19991224; HU 220939 B1 20020629; HU P9901415 A1 19990830; HU P9901415 A3 20000228; JP 3342494 B2 20021111; JP H11506190 A 19990602; PL 182356 B1 20011231; PL 328404 A1 19990118; RU 2150615 C1 20000610; WO 9729287 A1 19970814

DOCDB simple family (application)  
**US 10165098 A 19980714**; AT 97914049 T 19970104; CA 2245764 A 19970104; CN 97192134 A 19970104; CZ 240698 A 19970104; DE 29602088 U 19960207; DE 59708068 T 19970104; DE 9700039 W 19970104; EP 97914049 A 19970104; HK 99103387 A 19990805; HU P9901415 A 19970104; JP 52803297 A 19970104; PL 32840497 A 19970104; RU 98116598 A 19970104