

Title (en)

Pressure fluid cylinder particularly for a drafting arrangement in a textile machines

Title (de)

Druckmittelzylinder, insbesondere für ein Streckwerk einer Textilmaschine

Title (fr)

Vérin à pression fluïdique, particulièrement pour un arrangement d'etirage dans une machine textile

Publication

EP 1428914 B1 20070829 (DE)

Application

EP 03104432 A 20031127

Priority

DE 10255640 A 20021128

Abstract (en)

[origin: EP1428914A2] A switching disc (12) intervenes between piston (2) and cylinder base (6) on the pressure chamber (8) side. An initial compressed air pulse into the pressure chamber, overcomes friction and as a result, the disc reaches a position near the piston. The outer diameter of the disc is less than the inner diameter of the casing, but presents a maximal working area for the pressure pulse. The disc is fitted to a coaxial extension (10) of the piston rod (3) which projects into the pressure chamber (8). The disc includes an inner radial extension bush (10), shaped for guidance along the rod. The disc grips the piston rod by means of an elastomer ring (15), exerting friction. The ring is held in a corresponding groove in the inner edge of the disc. The casing (1) has an internal stop ring (16) formation. This is an end stop for the piston on one side, and an end stop for the disc located close to the piston, on the other side. The pneumatic cylinder action is single-stroke. The disc is located in the sole pressure chamber which lies on the opposite side of the piston from the piston rod opening. The piston rod leaves the pot-shaped cylinder at a basal opening. At the other end, the cylinder has a separate base (6) which closes it. The base has a connection (7) for the pressure medium. This is applied to the pressure chamber and a guide recess (9) corresponding with the piston rod extension.

IPC 8 full level

D01H 5/52 (2006.01); **F16J 10/02** (2006.01); **F15B 15/28** (2006.01); **F15B 19/00** (2006.01)

CPC (source: EP US)

F15B 15/2807 (2013.01 - EP US); **F15B 15/2892** (2013.01 - EP US); **F15B 19/005** (2013.01 - EP US)

Cited by

DE102012007777A1; US7610660B2; CN102691145A; DE102006048742B4; DE102021120188A1; DE102021120662A1; US7603750B2; WO2024132128A1

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