

Title (en)

Pneumatic rotary actuator with increased starting torque

Title (de)

Pneumatischer Drehantrieb mit erhöhtem Anlaufmoment

Title (fr)

Vérin rotatif pneumatique avec un couple de démarrage amélioré

Publication

EP 0578995 B1 19951213 (EN)

Application

EP 93109868 A 19930621

Priority

IT MI921576 A 19920626

Abstract (en)

[origin: EP0578995A1] The pneumatic rotary actuator (10) comprises a barrel (11) and inside partitions (17, 18) defining an elongated main chamber (14) and at least one lateral chamber (15, 16) communicating with the main chamber (14) via axially aligned passages in said partitions (17, 18). A main double-acting piston (20) reciprocable inside the main chamber (14) has a threaded axial hole (20A), which engages with a thread shaft (21) rotatably supported axially protruding from one end of the actuator. A secondary piston (25, 26) inside each lateral chamber (15, 16) provides an additional thrust to the main piston (20) at the beginning of each reciprocating travel. Guide surface means inside the main chamber (14) prevent the main piston (20) from rotating; fluid under pressure sequentially supplied on corresponding sides of the main (20) and lateral piston or pistons (25, 26), causes the reciprocating movement of the main piston (20) and the consequent reciprocating rotation of the thread shaft (21) with an increased starting torque at the beginning of each travel. <IMAGE>

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