

Title (en)

PNEUMATIC ROTARY ACTUATOR FOR ACCURATE POSITIONING OF A POWER OUTPUT MEMBER

Publication

EP 0479399 A3 19921223 (DE)

Application

EP 91250249 A 19910910

Priority

DE 4031185 A 19901001

Abstract (en)

[origin: EP0479399A2] In a pneumatic rotary actuator, a housing (2) can be connected to a compressed-air source (3). Mounted in the housing (2) is a shaft (4) which carries at least one rotary vane (5), in which arrangement the shaft transmits the rotary force to the power output member (1), and a servo-pneumatically controllable continuous valve (10) is allocated to the rotary vane (5), and the accurate positioning can be adjusted by force equilibrium of the compressed air, which force equilibrium can be briefly produced, on the two surfaces (5a, 5b) of the rotary vane (5) remote from one another. In order to permit an angle of rotation of any size, a high cycle frequency, accurate positioning of the power output member and a definable torque in a small type of construction and at a high efficiency, it is proposed that a shaft encoder (7) with an angle-measuring-system interface (8) and an NC-system (9) attached to the latter be allocated directly to the shaft (4), that the shaft encoder (7) be arranged at a distance from the power output member (1) on the shaft (4), and that the shaft encoder (7), the servo-pneumatically controllable continuous valve (10) and the shaft (4) with the rotary vane (5) form a unit which can be structurally self-contained. <IMAGE>

IPC 1-7

F15B 15/12; **F15B 9/09**

IPC 8 full level

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CPC (source: EP)

F15B 9/09 (2013.01); **F15B 15/12** (2013.01); **F15B 15/262** (2013.01); **F15B 15/2853** (2013.01)

Citation (search report)

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