

Title (en)
Rotary actuators.

Title (de)
Drehantriebe.

Title (fr)
Vérin rotatif.

Publication
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Application
EP 81302295 A 19810522

Priority
GB 8017273 A 19800527

Abstract (en)
A piston-rack rotary fluid pressure actuator includes a housing [10] enclosing cylinder [11] in which is disposed a pair of pistons [12, 13] biased by springs [14 and 15] towards the centre of the cylinder. Each piston has a rack portion [16, 17] engaged with a pinion [19] on output shaft [18], and elements of low friction material [20, 21] are incorporated into the outer surface of the rack portions [16, 17] to take up forces tending to displace the rack-bearing portions towards the cylinder. Annuli [30, 31] of incompressible material keyed to the shaft [18] make rolling contact with runways [32, 33] on the rack-bearing portions and have diameters equal to that of the pitch circle diameter of the teeth of pinion [19]. By this means contact is maintained between the low-friction elements [20, 21] and the cylinder and over-meshing between the teeth of pinion [19] and racks [16, 17] is prevented.

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F15B 15/06

IPC 8 full level
F15B 15/06 (2006.01); **F15B 15/08** (2006.01)

CPC (source: EP)
F15B 15/065 (2013.01)

Citation (search report)
• US 4167897 A 19790918 - BUNYARD ALAN D
• DE 2647385 A1 19770505 - GRIESEL BV

Cited by
EP0092987A1; EP0099546A1; DE102018218311B3; GB2318616A; GB2318616B; US6170797B1; WO8403129A1

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