

Title (en)
DIRECT DRIVE SERVO VALVE

Publication
EP 0102884 B1 19860730 (EN)

Application
EP 83401596 A 19830802

Priority
US 40360482 A 19820802

Abstract (en)
[origin: EP0102884A1] A direct drive servo valve includes a rotary torque motor (10) having an output shaft (28) connected to a spool member (42) forming part of a hydraulic control valve. The valve further includes a housing (12) having conduits (34, 36, 38, 40) connected to high (34) and low (36) pressure sides of a fluid pressure source and to opposite sides (38, 40) of an actuator. A sleeve (44a, 171) in the housing (12) includes a plurality of passageways (74, 78, 174, 176) connecting the conduits with channels in the sleeve (44a, 171) to direct the working fluid as required to cause the associated actuator to move in a desired direction. The sleeve (44a, 171) is formed of a plurality of disks (60, 60 min , 62, 64, 66) having the desired internal patterns such that when they are assembled, brazed together, and machined to the desired dimensions, the passages are formed with openings as required. A torque tube (26) fastened between the shaft (28) and the sleeve housing (12) acts as a centering spring and seals operating fluid from the motor windings (16).

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IPC 8 full level
F15B 13/04 (2006.01); **F15B 13/044** (2006.01)

CPC (source: EP)
F15B 13/0406 (2013.01); **F15B 13/044** (2013.01)

Citation (examination)
HYDRAULICS & PNEUMATICS, no. 7, July 1980 CLEVELAND OHIO (US) Y.M. EL-IBIARY et al.: "Fluid Power Research Update", pages 86,87,100.

Cited by
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