

Title (en)
AN ELECTRICALLY OPERATED VALVE OR DAMPER ACTUATOR HAVING AN ELECTRIC MOTOR DIRECTLY COUPLED TO THE ACTUATOR DRIVE SHAFT

Title (de)
ELEKTRISCH GESTEUERTES VENTIL-ODER DÄMPFER-STELLGLIED MIT EINEM DIREKT AN DIE WELLE GEKOPPELTEN ELEKTRISCHEN MOTOR

Title (fr)
POUSSOIR ELECTRIQUE POUR SOUPEPE OU VOLET, COMPORTANT UN MOTEUR ELECTRIQUE DIRECTEMENT COUPLE A SON ARBRE D'ENTRAINEMENT

Publication
EP 1072083 A4 20010704 (EN)

Application
EP 99914364 A 19990416

Priority
• AU 9900283 W 19990416
• AU PP300298 A 19980416
• AU PP882799 A 19990222

Abstract (en)
[origin: WO9954987A1] An actuator comprising an electric motor capable of developing a torque greater than 10 Nm is axially mounted directly on the actuating shaft of a valve or damper without any gear box therebetween. Motor is preferably a constant torque, permanent magnet, direct current DC motor operated by pulse width modulation to provide variable output speed over given speed range. Control and monitoring by set parameters is by (optionally remote) keypad and microprocessor. Motor drive shaft may be decoupled from the motor by a hand operated lever (46, 47) actuating coupling (38, 40, 41) and may be manually operated by hand wheel (20). Schematic figs (6 and 7) show microprocessor control and safety monitoring using rotor speed, temperature sensor, valve actuator shaft position and torque sensors.

IPC 1-7
H02K 7/14; **H02K 7/10**; **H02P 5/17**; **F16K 31/04**; **F16K 31/05**

IPC 8 full level
F16K 31/04 (2006.01); **H02K 7/10** (2006.01); **H02K 7/108** (2006.01); **H02K 7/14** (2006.01)

CPC (source: EP KR)
F16K 31/04 (2013.01 - KR); **F16K 31/048** (2013.01 - EP); **H02K 7/108** (2013.01 - EP); **H02K 7/14** (2013.01 - EP)

Citation (search report)
• [XA] US 4039874 A 19770802 - SUTTER JEAN GEORGES
• [XA] US 4050000 A 19770920 - SUTTER JEAN GEORGES
• [XA] US 3946984 A 19760330 - SUTTER JEAN GEORGES
• [XA] US 4021015 A 19770503 - MAEDER CLAUDE, et al
• [A] US 4888996 A 19891226 - RAK THOMAS A [US], et al
• [A] GB 774303 A 19570508 - ROTORK ENG CO LTD
• [A] US 4114469 A 19780919 - STRATIENKO ANDREW
• [A] US 4429591 A 19840207 - ZUCH HOWARD W [US], et al
• [A] US 4084120 A 19780411 - LUND BRYANT D
• [A] US 5483841 A 19960116 - CASADA DONALD A [US]
• [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 331 (M - 1282) 20 July 1992 (1992-07-20)
• See references of WO 9954987A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9954987 A1 19991028; AR 014993 A1 20010411; BR 9909725 A 20001219; CA 2328373 A1 19991028; CN 1297601 A 20010530; CO 4890892 A1 20000228; EA 002335 B1 20020425; EA 200000951 A1 20010423; EP 1072083 A1 20010131; EP 1072083 A4 20010704; ID 26649 A 20010125; IL 138952 A0 20011125; JP 2002512353 A 20020423; KR 20010071154 A 20010728; MX PA00010086 A 20020806; PL 344054 A1 20010924

DOCDB simple family (application)
AU 9900283 W 19990416; AR P990101785 A 19990416; BR 9909725 A 19990416; CA 2328373 A 19990416; CN 99805067 A 19990416; CO 99022634 A 19990415; EA 200000951 A 19990416; EP 99914364 A 19990416; ID 20002079 A 19990416; IL 13895299 A 19990416; JP 2000545235 A 19990416; KR 20007011460 A 20001014; MX PA00010086 A 19990416; PL 34405499 A 19990416