

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 November 2007 (01.11.2007)

PCT

(10) International Publication Number
WO 2007/124259 A2

(51) International Patent Classification:
F04B 43/06 (2006.01)

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(21) International Application Number:

PCT/US2007/066178

(22) International Filing Date: 6 April 2007 (06.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/407,878 19 April 2006 (19.04.2006) US

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR,
LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

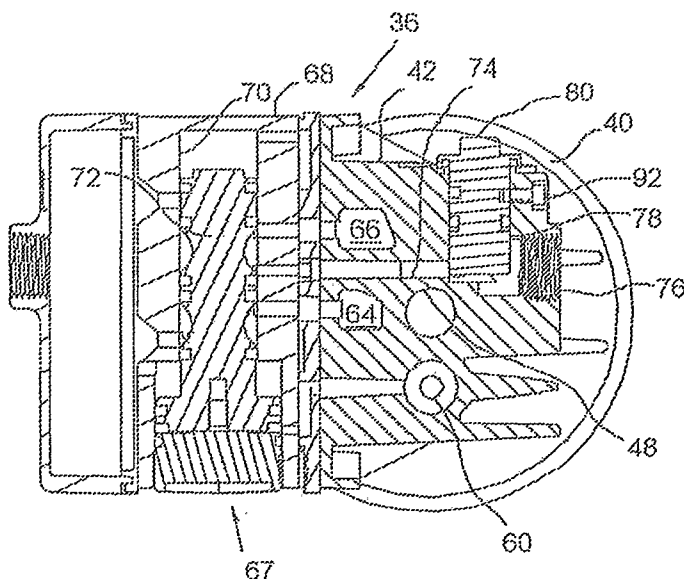
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

[Continued on next page]

(54) Title: AIR DRIVEN PUMP WITH PERFORMANCE CONTROL



(57) Abstract: An air driven diaphragm pump includes an performance control actuator having a housing with opposed air chambers. The pump includes pump chambers facing the air chambers and pump diaphragms extending between each air chamber and each pump chamber, respectively. The actuator further includes an air valve, an intake to the air valve and an engagement. The intake includes an intake passage and a performance control intake adjuster rotatably mounted. The intake adjuster has a helical channel and a closure element extending adjustably into the intake passage. The engagement engages the helical channel for control of the intake. The helical channel has varied pitch to provide a nonlinear relationship between rotation and axial advancement of the intake adjuster. The nonlinear relationship gives flow rate proportional to the angular rotation of the intake adjuster. The end points of the channel provide a practical minimum pump performance of about 40% of maximum pump flow rate and a maximum pump performance of about 87% of maximum pump flow rate.



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