

Title (en)

PISTON PUMP DRIVE AND CONTROL PNEUMATIC OSCILLATING SYSTEM USED IN MEDICAL RESEARCH

Title (de)

KOLBENPUMPENANTRIEB UND STEUERUNG EINES PNEUMATISCHEN OSZILLIERENDEN SYSTEMS FÜR DIE MEDIZINISCHE FORSCHUNG

Title (fr)

SYSTÈME D'OSCILLATION PNEUMATIQUE DE COMMANDE ET D'ENTRAÎNEMENT DE POMPE À PISTON UTILISÉ DANS LA RECHERCHE MÉDICALE

Publication

EP 3663577 A1 20200610 (EN)

Application

EP 19020605 A 20191029

Priority

RO 201801028 A 20181203

Abstract (en)

The piston pump drive and control pneumatic oscillating system consisting of an air preparation unit³, a pneumatic directional control valve², a discharge throttle¹ with variable orifice and a distribution and oscillation slide valve⁴ which pneumatically actuates the piston and the valves distribution⁵ of a pump, enabling the flow of working fluid to be supplied by moving the working piston along a stroke (c) correlated with the pneumatic control frequency obtained by varying of the supply flow of the distribution and oscillation slide valve or by varying the flow section of the discharge throttle.

IPC 8 full level

F04B 9/123 (2006.01); **F04B 9/125** (2006.01); **F04B 53/10** (2006.01); **F04B 15/02** (2006.01)

CPC (source: EP)

F04B 9/123 (2013.01); **F04B 9/1253** (2013.01); **F04B 53/1077** (2013.01); **F04B 15/02** (2013.01)

Citation (applicant)

DE 3228109 A1 19840202 - FESTO MASCHF STOLL G [DE]

Citation (search report)

- [I] FR 2333944 A1 19770701 - ECOLE NALE SUP ARTS METIERS [FR]
- [IA] DE 1528482 A1 19690821 - MASCHF AUGSBURG NUERNBERG AG
- [A] US 5862828 A 19990126 - DOERFLER ERICH N [DE]
- [A] US 4780065 A 19881025 - SAYERS WILLIAM [US]
- [A] US 3721091 A 19730320 - TOMINAGA H, et al
- [A] US 9816535 B2 20171114 - GRESSER MANFRED [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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