

Title (en)
Diaphragm or piston pump.

Title (de)
Membran- oder Kolbenpumpe.

Title (fr)
Pompe à membrane ou à piston.

Publication
EP 0132913 A1 19850213 (EN)

Application
EP 84302390 A 19840406

Priority
GB 8309426 A 19830407

Abstract (en)
A double diaphragm pump has a casing 10, 11, 12 internally divided axially by a central partition member 14 and each of the two compartments thus formed accommodates a diaphragm 16, 17. A push rod 22 slidably mounted in the partition member abuts both diaphragms. The spaces 19 on the outer sides of the diaphragms constitute motor chambers receiving compressed air alternately to drive the pump. The spaces 20 between the two diaphragms and the partition member 14 constitute pumping chambers. The partition member has an inlet passage 25 for the pumped fluid which passage is bifurcated to form two branch passages leading to the two pumping chambers 20 respectively, and two further passages in the partition member lead from the respective pumping chambers 20 to a common outlet 26. Each branch passage incorporates a non-return valve permitting flow in a direction from the inlet towards the outlet only. The end members of the casing carry pilot valve members 34 which when contacted by the diaphragms actuate operation of a changeover valve 39 to reverse the connections of the chambers 19 to pressure air supply and exhaust, to drive the diaphragms 16, 17 and push rod 22 in the opposite direction.

IPC 1-7
F04B 43/06

IPC 8 full level
F04B 43/06 (2006.01); **F04B 43/073** (2006.01)

CPC (source: EP US)
F04B 43/0736 (2013.01 - EP US)

Citation (search report)
• US 4334837 A 19820615 - INADA MASAMI, et al
• US 1920014 A 19330725 - HORTON ERWIN C, et al
• US 2260306 A 19411028 - FERGUSON ALEXANDER D
• GB 837737 A 19600615 - WM BUTLER & CO BRISTOL LTD, et al
• GB 2085979 A 19820506 - MCCANN ENG & MFG
• GB 481270 A 19380308 - ETTORE CARETTA

Cited by
WO2011144772A1; CN107013442A; EP0298615A3; US4927335A; GB2291470A; GB2357811A; EP1113174A3; AU734911B2; AU740929B2; US5053941A; GB2470348A; GB2470348B; US8469681B2; ES2380260A1; CN103140679A; KR20130111224A; EP2573397A4; WO9634201A1; WO9634202A1; WO2010125328A1; US11040314B2; EP1113174A2; US10477883B2; US6419463B1; US6422834B1; WO9925999A1; WO9925998A1; US8858195B2; US6299415B1; US10785996B2; US11013247B2

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)
EP 0132913 A1 19850213; EP 0132913 B1 19880113; AT E31966 T1 19880115; DE 3468727 D1 19880218; GB 8309426 D0 19830511

DOCDB simple family (application)
EP 84302390 A 19840406; AT 84302390 T 19840406; DE 3468727 T 19840406; GB 8309426 A 19830407