

Title (en)

Partially preloaded pump diaphragms

Title (de)

Zum Teil vorgespannte Pumpenmembran

Title (fr)

Membrane de pompe partiellement prétendue

Publication

EP 1323924 A2 20030702 (EN)

Application

EP 02258415 A 20021205

Priority

US 2742201 A 20011219

Abstract (en)

A partially preloaded diaphragm (10) having an outer attachment portion (12) defining a first plane (P) and disposed about an axis (21) substantially perpendicular to the first plane. An inner attachment portion (16) is disposed substantially perpendicular to the axis of the outer attachment portion and defines a second plane (C). The inner attachment portion is movable away from the outer attachment portion into a fully extended pumping position defining a third plane (F). The first plane and the second plane are spaced at a distance to define a preload distance (PC) when the diaphragm is at rest, and the first and third plane are spaced to define a pump stroke distance (PF) when the diaphragm is fully extended. The preload distance is from about 25 percent to about 85 percent of the pump stroke distance. <IMAGE>

IPC 1-7

F04B 43/00

IPC 8 full level

F04B 43/00 (2006.01)

CPC (source: EP US)

F04B 43/0054 (2013.01 - EP US)

Citation (applicant)

US 3011758 A 19611205 - MCFARLAND JR ROLLAND

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

EP 1323924 A2 20030702; EP 1323924 A3 20031126; CA 2413376 A1 20030619; US 2003110939 A1 20030619

DOCDB simple family (application)

EP 02258415 A 20021205; CA 2413376 A 20021129; US 2742201 A 20011219