

Title (en)
VOLUMETRIC FLUID PUMP WORKING AS A PUMP WITH ROTARY PISTONS

Publication
EP 0223025 B1 19901212 (DE)

Application
EP 86113596 A 19861002

Priority
IT 8561485 A 19851118

Abstract (en)
[origin: EP0223025A2] The pump has a tubular housing, for example, and a motor-driven rotary piston. A band-shaped or tubular diaphragm, for example, is provided in the cylindrical longitudinal bore of the housing, which diaphragm is attached in a liquid-tight and/or gas-tight manner to the housing in the area of the two cylindrically formed axial ends of the longitudinal bore of the said housing and, in the area between these two ends, forms with the wall of the longitudinal bore an annular intermediate space which, however, is not closed, its two peripheral ends being closed by the diaphragm being fastened to the housing at these locations over the entire axial length without interruption and while being effectively sealed off. The intake opening and the discharge opening of the housing are provided in the area of these peripheral ends; the unit also has two or more masses which can be set in rotation as a unit around the longitudinal centre axis of the intermediate space by means of a drive motor and can here be adjusted in a reciprocating manner in each case in the radial direction between an inner, retracted position and an advanced position (under the effect of the centrifugal force) in which they press the diaphragm against the wall of the housing bore in such a way that they bring about a tight closure of the intermediate space at this location and in doing so subdivide this intermediate space into various chambers which perform a continuous rotational movement advancing from the intake opening to the discharge opening and having a pumping action.

IPC 1-7
F04B 43/12; F04B 43/14

IPC 8 full level
F04B 43/14 (2006.01)

CPC (source: EP)
F04B 43/14 (2013.01)

Cited by
EP0320963A3; EP3056733A4; US10253767B2; WO9310357A1

Designated contracting state (EPC)
DE FR GB SE

DOCDB simple family (publication)
EP 0223025 A2 19870527; EP 0223025 A3 19880210; EP 0223025 B1 19901212; DE 3676167 D1 19910124; IT 1210536 B 19890914;
IT 8585614 A0 19851118

DOCDB simple family (application)
EP 86113596 A 19861002; DE 3676167 T 19861002; IT 8561485 A 19851118