

Title (en)  
Multicylinder piston pump

Title (de)  
Mehrzylindrige Kolbenpumpe

Title (fr)  
Pompe à piston avec plusieurs cylindres

Publication  
**EP 1101939 B1 20041006 (DE)**

Application  
**EP 00124637 A 20001110**

Priority  
DE 19955778 A 19991119

Abstract (en)  
[origin: EP1101939A2] The piston pump (3) includes a number of preferably homogeneous butt-cylinder units (30), in whose cylinders (31) respectively one associated displacement butt (32) is led, and a gearing arrangement (34, 35) which converts the rotation of a common drive shaft (33) to a periodic oscillating translational lift movement of the butts in the respective cylinders. Each butt executes at least one full period of its oscillation per 360 degree rotation of the drive shaft, whereby the oscillation is composed of a suction interval, in which the butt executes a lift in a first direction for taking in the fluid in the corresponding cylinder, and a pump interval, in which the butt executes a lift in the opposite direction, for pressing the fluid out of the cylinder. The oscillations of the butts are equal to each other, and are displaced with respect to phase. The gearing arrangement is formed in such way, that the pump interval of each butt covers a larger part than the suction interval, with such ratio, that inhomogenities in the temporal course of the total conveyed current are smaller than at equal pump- and suction intervals.

IPC 1-7  
**F04B 1/04; F04B 11/00**

IPC 8 full level  
**F04B 1/04** (2006.01); **F04B 11/00** (2006.01)

CPC (source: EP)  
**F04B 1/0413** (2013.01)

Cited by  
CN112806287A; CN116733724A; US9127656B2; WO2010112253A1; WO2012143157A1; US9328720B2

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