

Title (en)
Pump

Title (de)
Pumpe

Title (fr)
Pompe

Publication
EP 2551521 A2 20130130 (EN)

Application
EP 12177655 A 20120724

Priority
• KR 20110075023 A 20110728
• KR 20120026107 A 20120314

Abstract (en)
A double action rotary pump forcibly delivers fluid such as liquid or gas. A transmission unit operates at uniform or non-uniform angular speeds using driving force transmitted from a motor via a power transmission system. An operating unit is provided in series with the transmission unit. A piston of the operating unit has a pair of heads, which rotate at non-uniform angular speeds in a counteracting fashion while maintaining the distance between shafts, and divides the spaces inside cylinders. The volumes of the divided spaces of the cylinders are repeatedly and alternately contracted and expanded in response to the rotation of the piston, so that the cylinders counteractively and continuously perform intake and exhaust operations, thereby forcibly delivering fluid. The structure of the power transmission system is improved such that the sum of flow rates that are pumped by the piston at a predetermined time point stays uniform.

IPC 8 full level
F04B 9/02 (2006.01); **F04C 2/06** (2006.01); **F04C 11/00** (2006.01); **F04C 29/00** (2006.01); **F16H 47/00** (2006.01)

CPC (source: EP US)
F04B 9/02 (2013.01 - EP US); **F04C 2/06** (2013.01 - EP US); **F04C 11/001** (2013.01 - EP US); **F04C 29/0042** (2013.01 - EP US)

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)
EP 2551521 A2 20130130; **EP 2551521 A3 20131225**; CN 102979719 A 20130320; US 2013028779 A1 20130131

DOCDB simple family (application)
EP 12177655 A 20120724; CN 201210341413 A 20120727; US 201213556717 A 20120724