

Title (en)
Cartridge style binary vane pump

Title (de)
Kartuschenbinärflügelpumpe

Title (fr)
Pompe à ailettes binaire de style cartouche

Publication
EP 2578883 A2 20130410 (EN)

Application
EP 12187369 A 20121005

Priority
US 201161544784 P 20111007

Abstract (en)
A binary vane pump is provided. The binary vane pump includes a pressure plate (50) having a first discharge port (52), a thrust plate (60) having a second discharge port (66), a ring (30) positioned axially between the pressure plate (50) and thrust plate (60), the ring (30) having an inner cam surface (34), and a rotor (40) rotatably disposed within the ring (30), the rotor (40) having a plurality of slots (44) and a plurality of vanes (46), the vanes (46) of the plurality of vanes corresponding to respective slots (44) of the plurality of slots (44) and are radially movable with the respective slots (44). A first and second pump chamber (37,38) are disposed within the ring (30), separated by the rotor (40), vanes (46), pressure plate (50) and thrust plate (60), the first pump chamber (37) configured to discharge fluid to the first discharge port (52) and the second pump chamber (38) configured to discharge fluid to the second discharge port (66). A shaft (42) extends through the pressure plate (50), thrust plate (60), ring (30) and rotor (40) and drives the rotor (40).

IPC 8 full level
F04C 2/344 (2006.01)

CPC (source: EP US)
F04C 2/3446 (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 2578883 A2 20130410; EP 2578883 A3 20140122; CN 103032308 A 20130410; CN 103032308 B 20160622; US 2013089456 A1 20130411

DOCDB simple family (application)
EP 12187369 A 20121005; CN 201210460653 A 20121007; US 201213644696 A 20121004