

Title (en)

Apparatus to concentrate a fluid and a multiple chamber pump

Title (de)

Vorrichtung zum Aufkonzentrieren einer Flüssigkeit und Differentialkolbenpumpe

Title (fr)

Dispositif pour concentrer un fluide et pompe à piston différentiel

Publication

EP 1752662 B1 20080220 (DE)

Application

EP 05017334 A 20050809

Priority

EP 05017334 A 20050809

Abstract (en)

[origin: EP1752662A1] The device has a drive shaft (12) and a differential piston pump. The differential piston pump is driven by the drive shaft and a valve control unit (18) is arranged for operating an inlet and outlet valve arrangement. A tappet is arranged on the drive shaft for a differential piston (K) and the valve control unit. The differential piston and the valve control unit are coupled with a pressure coupling directly at the tappet. An independent claim is also included for a differential piston pump for a fluid.

IPC 8 full level

F04B 5/00 (2006.01); **F04B 7/00** (2006.01); **F04B 9/10** (2006.01)

CPC (source: EP US)

F04B 5/00 (2013.01 - EP US); **F04B 7/00** (2013.01 - EP US); **F04B 9/042** (2013.01 - EP US); **F04B 9/107** (2013.01 - EP US)

Cited by

DE102008009195A1; DE102008005319A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1752662 A1 20070214; **EP 1752662 B1 20080220**; AT E386884 T1 20080315; AU 2006278957 A1 20070215; CN 101238288 A 20080806; DE 502005002928 D1 20080403; EA 200800551 A1 20080630; ES 2302105 T3 20080701; JP 2009504992 A 20090205; PT 1752662 E 20080528; US 2009246045 A1 20091001; WO 2007016988 A1 20070215; ZA 200802182 B 20090930

DOCDB simple family (application)

EP 05017334 A 20050809; AT 05017334 T 20050809; AU 2006278957 A 20060609; CN 200680028792 A 20060609; DE 502005002928 T 20050809; EA 200800551 A 20060609; EP 2006005573 W 20060609; ES 05017334 T 20050809; JP 2008528359 A 20060609; PT 05017334 T 20050809; US 98980306 A 20060609; ZA 200802182 A 20060609