

Title (en)

TWO-CYLINDER THICK MATTER PUMP

Title (de)

ZWEIZYLINDER-DICKSTOFFPUMPE

Title (fr)

POMPE POUR LIQUIDES EPAIS A DEUX CYLINDRES

Publication

EP 1003969 B1 20020619 (DE)

Application

EP 98945133 A 19980731

Priority

- DE 19735091 A 19970813
- EP 9804808 W 19980731

Abstract (en)

[origin: US6450779B1] A two-cylinder thick-matter pump for continuous delivery of thick matter is characterized in that a reversing valve (5) has a diverter housing (8, 8') with at least four openings (a-b), the diverter (6, 6') disposed in the diverter housing (8, 8') is swiveled with its outlet opening in front of the cylinder openings and has an inlet opening (RE) which is firmly connected with the suction pipe (3), the cavity (H) in the diverter housing (8, 8') being constantly under delivery pressure, and at least one shut-off element (10) being provided for closing the suction pipe (3) and/or the first and/or second openings (a , b) of the diverter housing (8, 8').

IPC 1-7

F04B 7/00

IPC 8 full level

F04B 15/02 (2006.01); **F04B 7/00** (2006.01)

CPC (source: EP KR US)

F04B 7/00 (2013.01 - KR); **F04B 7/0026** (2013.01 - EP US); **F04B 7/0038** (2013.01 - EP US); **Y10S 417/90** (2013.01 - EP US)

Cited by

DE102009005318B3; DE102005024174A1; DE102005008938B4; DE102005008938A1; WO2006125606A1; WO2010081695A1; US9046086B2

Designated contracting state (EPC)

AT DE ES FR GB GR IT

DOCDB simple family (publication)

WO 9909315 A1 19990225; AT E219554 T1 20020715; AU 727999 B2 20010104; AU 9256798 A 19990308; BR 9811171 A 20000725; CA 2299391 A1 19990225; CA 2299391 C 20061024; CN 1104558 C 20030402; CN 1265724 A 20000906; DE 19735091 A1 19990429; DE 19735091 B4 20060302; DE 59804530 D1 20020725; EP 1003969 A1 20000531; EP 1003969 B1 20020619; ES 2180197 T3 20030201; HK 1027149 A1 20010105; JP 2001515180 A 20010918; KR 100402197 B1 20031022; KR 20010022811 A 20010326; RU 2193110 C2 20021120; TR 200000345 T2 20000522; US 6450779 B1 20020917

DOCDB simple family (application)

EP 9804808 W 19980731; AT 98945133 T 19980731; AU 9256798 A 19980731; BR 9811171 A 19980731; CA 2299391 A 19980731; CN 98807842 A 19980731; DE 19735091 A 19970813; DE 59804530 T 19980731; EP 98945133 A 19980731; ES 98945133 T 19980731; HK 00106161 A 20000928; JP 2000509948 A 19980731; KR 20007001412 A 20000211; RU 2000106520 A 19980731; TR 200000345 T 19980731; US 48516400 A 20000202