

Title (en)
Drain pump

Title (de)
Entleerungspumpe

Title (fr)
Pompe de vidange

Publication
EP 1024297 B1 20020306 (EN)

Application
EP 99118429 A 19990917

Priority
JP 1809699 A 19990127

Abstract (en)
[origin: EP1024297A2] A pump body 30 of a drain pump comprises an intake opening 42 protruded downward and a discharge opening 46 extending to the side. A vane 50 inside the pump body 30 is rotated by a motor. The vane 50 is formed so that the outer peripheral portion of large radius vanes 450 is surrounded by a cylindrical wall member 470. The height of the cylindrical wall member 470 against the height of the large radius vanes 450 to the upper rim portion 453 is set to be in a predetermined range, which effectively reduces the noise being generated. <IMAGE>

IPC 1-7
F04D 29/66; **F04D 29/22**; **F04D 29/24**

IPC 8 full level
F04D 1/14 (2006.01); **F04D 29/00** (2006.01); **F04D 29/22** (2006.01); **F04D 29/24** (2006.01); **F04D 29/66** (2006.01); **F24F 13/22** (2006.01)

CPC (source: EP KR)
F04D 29/00 (2013.01 - KR); **F04D 29/2216** (2013.01 - EP); **F04D 29/242** (2013.01 - EP); **F04D 29/669** (2013.01 - EP);
F05B 2260/96 (2013.01 - EP)

Cited by
EP2287470A3; EP1617084A1

Designated contracting state (EPC)
DE ES FR GB IT NL

DOCDB simple family (publication)
EP 1024297 A2 20000802; **EP 1024297 A3 20001011**; **EP 1024297 B1 20020306**; CN 1129717 C 20031203; CN 1262393 A 20000809;
DE 69900972 D1 20020411; DE 69900972 T2 20021121; ES 2173693 T3 20021016; JP 2000213769 A 20000802; JP 4267118 B2 20090527;
KR 100571591 B1 20060417; KR 20000052358 A 20000825; TW 405023 B 20000911

DOCDB simple family (application)
EP 99118429 A 19990917; CN 99123160 A 19991025; DE 69900972 T 19990917; ES 99118429 T 19990917; JP 1809699 A 19990127;
KR 19990049440 A 19991109; TW 88115979 A 19990916