

Title (en)
Pump and method of manufacturing same

Title (de)
Pumpe und ihr Herstellungsverfahren

Title (fr)
Pompe et sa méthode de fabrication

Publication
EP 1253320 B1 20060208 (EN)

Application
EP 02008979 A 20020423

Priority
JP 2001125904 A 20010424

Abstract (en)
[origin: EP1253320A2] A compact pump has a pump chamber, inlet and outlet channels communicating with the pump chamber, and a pair of check valve units between the pump chamber and the inlet and outlet channels. Each check valve unit has a thin film check valve membrane, and a check valve body with a channel opened and closed by the check valve membrane due to a pressure difference. <IMAGE>

IPC 8 full level
F04B 43/00 (2006.01); **F04B 43/04** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP KR US)
F04B 43/00 (2013.01 - KR); **F04B 43/046** (2013.01 - EP US); **F04B 53/1062** (2013.01 - EP US)

Cited by
DE10242110A1; EP1555469A1; US7284572B2; WO2023092934A1

Designated contracting state (EPC)
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EP 1253320 A2 20021030; EP 1253320 A3 20040204; EP 1253320 B1 20060208; CN 1212476 C 20050727; CN 1382909 A 20021204; DE 60209054 D1 20060420; DE 60209054 T2 20060831; HK 1051061 A1 20030718; HK 1051061 B 20060825; KR 100494262 B1 20050613; KR 20020082800 A 20021031; TW 561223 B 20031111; US 2003002995 A1 20030102

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EP 02008979 A 20020423; CN 02118459 A 20020424; DE 60209054 T 20020423; HK 03101906 A 20030314; KR 20020022511 A 20020424; TW 91107782 A 20020416; US 12753502 A 20020423