

Title (en)  
PUMP DEVICE AND PUMP SYSTEM

Title (de)  
PUMPVORRICHTUNG UND PUMPENSYSTEM

Title (fr)  
DISPOSITIF DE POMPE ET SYSTÈME DE POMPE

Publication  
**EP 2816233 A4 20151223 (EN)**

Application  
**EP 12868917 A 20120216**

Priority  
JP 2012001023 W 20120216

Abstract (en)  
[origin: EP2816233A1] [Object] To provide a pump device capable of limiting discharge of a fluid when the operation is stopped. [Solving Means] A pump device (3) includes a casing (10), a movable member (30), a suction valve (41), a discharge valve (42), and a valve mechanism (50). The casing (10) includes a suction port (101), a discharge port (102), and a pump chamber (100). The movable member (30) is movable within the casing (10) and alternately performs suction and discharge of a fluid into and from the pump chamber (100). The discharge valve (42) is attached between the pump chamber (100) and the discharge port (102) and permits the fluid having a first pressure or higher to flow. The valve mechanism (50) is attached to the casing (10) and limits a flow of the fluid having a second pressure or lower.

IPC 8 full level  
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CPC (source: EP US)  
**F04B 43/04** (2013.01 - EP US); **F04B 45/047** (2013.01 - EP US); **F04B 49/06** (2013.01 - EP US); **F04B 53/10** (2013.01 - EP US); **F04B 53/1065** (2013.01 - EP US); **F04B 2205/03** (2013.01 - EP US)

Citation (search report)

- [A] US 5201643 A 19930413 - HIROSAWA KOICHIRO [US], et al
- [A] GB 470354 A 19370813 - EXACTOR CONTROL COMPANY LTD, et al
- [A] EP 0130662 A2 19850109 - CASH ENG CO PTY LTD [AU]
- See references of WO 2013121463A1

Cited by  
CN107636308A; WO2016184468A1

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DOCDB simple family (publication)  
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