

Title (en)

HAND OPERATED PUMP FOR EJACULATING SMALL AMOUNT

Title (de)

HANDBETÄTIGTE PUMPE ZUM AUSSTOSS KLEINER MENGEN

Title (fr)

POMPE ACTIONNEEE MANUELLEMENT POUR LE DECHARGEMENT DE PETITES QUANTITES DE LIQUIDE

Publication

EP 1334277 A4 20050713 (EN)

Application

EP 00971843 A 20001019

Priority

KR 0001178 W 20001019

Abstract (en)

[origin: WO0233258A1] The present invention relates to the manually operated pump for discharging small amount, of which the discharge rate is less than approximately 2 cc per one time, wherein the original function of the pump may be performed by means of just one spring by changing the structure of the shaft and the piston, the manufacturing process of the pump may be simplified by integrating the housing cap and the vessel cover and changing the structure of the cover to reduce the number of the constituent parts, the assembly process of the parts is simple, and the pumping is easier. And, it is an advantageous to improve the securing force between the housing and the cover and the sealing of the interior of the housing. Such a manually operated pump for discharging small amount is available in pumping both of the high viscous contents and low viscous contents.

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IPC 8 full level

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Citation (search report)

- [X] DE 1728220 A1 19720323 - ZELLER PLASTIK KOEHN GRAEBNER
- [X] WO 0056465 A1 20000928 - REXAM SOFAB [FR], et al
- [A] EP 0963256 A1 19991215 - TAPLAST SRL [IT]
- [A] US 4063854 A 19771220 - HAYES THOMAS H, et al
- [A] FR 2576365 A1 19860725 - SOFAB [FR]
- See references of WO 0233258A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

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