

Title (en)

Trigger type liquid discharge device

Title (de)

Hebelbetätigte Flüssigkeitsaustragsvorrichtung

Title (fr)

Dispositif de distribution de liquides du type à gachette

Publication

EP 1310305 A2 20030514 (EN)

Application

EP 03000944 A 19951026

Priority

- EP 95935573 A 19951026
- JP 28592394 A 19941026
- JP 9402279 W 19941228

Abstract (en)

A trigger type liquid discharge device comprising a container, a pump unit having a cylinder and a piston, a discharge pipe (F) having a discharge aperture (405), and a trigger (102) for reciprocating the piston. Liquid drawn up from the container is discharged through the discharge aperture by movement of the piston to a stroke end. A liquid guide (403) is arranged in a liquid flow path (407) disposed upstream relative to the discharge aperture (405). The liquid guide (403) comprises a valve body (410) for closing the liquid flow path (407), a pressure bearing sleeve (411) formed integrally with the valve body (410), a guide sleeve (417) connecting the valve body (410) and the pressure bearing sleeve (411) through an opening (420). The guide sleeve (417) of the liquid guide (403) is inserted into the inside of a guide sleeve (418) of a spin element (404). The valve body (410) is urged by a spring (413) between the guide sleeve (417) and a guide sleeve (418) to close the liquid flow path (407). The pressure bearing sleeve (411) has a pressure bearing surface (414) facing the upstream side of the liquid flow path (407) for bearing the liquid pressure. An area of the said pressure bearing surface (414) is so selected that a force generated by a proper liquid discharge pressure that is applied to said pressure bearing surface (411) is greater than the sum of a resilient force of the spring member (413) and a force applied to the pressure bearing surface (414) and directed to the downstream side of the liquid flow path (407). <IMAGE>

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EP 0738542 A1 19961023; **EP 0738542 A4 19980107**; **EP 0738542 B1 20080507**; AU 3754095 A 19960523; AU 708396 B2 19990805; CA 2179888 A1 19960509; CA 2179888 C 20070828; CN 1071599 C 20010926; CN 1137764 A 19961211; DE 69535748 D1 20080619; DE 69535779 D1 20080807; EP 1310305 A2 20030514; EP 1310305 A3 20040310; EP 1310305 B1 20080625; EP 1923143 A2 20080521; EP 1923143 A3 20080820; EP 1923143 B1 20100908; JP 3720054 B2 20051124; KR 100407125 B1 20040527; WO 9613334 A1 19960509

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