

Title (en)
PUMP FOR LIQUIDS

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Application
EP 90114674 A 19900731

Priority
GB 8917747 A 19890803

Abstract (en)
[origin: EP0411564A2] The invention refers to a pump in which a diaphragm (8) is reciprocated to cause cycles of high and low pressure in a chamber (9), and two conduits (10,11) communicating between the chamber and the exteriors, contain oppositely directed one way valve elements (12,13). Because the forward directions of those valve elements may offer even very low resistance to such effects as gravity (Fig.3), an entire reservoir could empty inadvertently through the pump. The invention proposes that a single body (27) be shaped to contain the one-way elements (12,13), to fit in the lower pump body (24), to assist in clamping the diaphragm (8), and to present to the chamber (9) one or other of the conduits, preferably that destined as the inlet conduit (10A), with an orifice (27C) which will act as a valve seat. A portion (6) of the diaphragm is contrived as a valve flap, and can close that conduit which is presented with the orifice (27C). Return bias (5) of the pump acts on the diaphragm (8) such as to close the orifice under quiescent or switched off conditions of the pump.

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CPC (source: EP US)
F04B 43/04 (2013.01 - EP US)

Citation (search report)
• [Y] GB 1571360 A 19800716 - GEN & COUNTRY LAB LTD
• [YD] EP 0286404 A2 19881012 - EATON SA MONACO [MC]
• [X] PATENT ABSTRACTS OF JAPAN, unexamined applications, M field, vol. 10, no. 246, August 23, 1986 THE PATENT OFFICE JAPANESE GOVERNMENT page 153 M 510
• [X] PATENT ABSTRACTS OF JAPAN, unexamined applications, M field, vol. 12, no. 91, March 24, 1988 THE PATENT OFFICE JAPANESE GOVERNMENT page 77 M 679

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