

Title (en)

Air operated diaphragm pump and a valve arrangement therefore.

Title (de)

Luftangetriebene Membranpumpe und Ventilanordnung dafür.

Title (fr)

Pompe à diaphragmes actionnée par l'air et soupape pour cette pompe.

Publication

EP 0147889 A1 19850710 (EN)

Application

EP 84201842 A 19841212

Priority

- US 56494483 A 19831223
- US 56494783 A 19831223

Abstract (en)

A diaphragm pump pumping arrangement includes two diaphragm pumps which are arranged and operate in tandem. Each of the diaphragm pumps includes a housing and a movable wall that includes a flexible diaphragm and subdivides the interior of the respective pump housing into a pumping chamber and an actuating chamber. An air distributing control arrangement interposed between and connected to the pump housings includes a spool valve movable in a bore of an aluminum casing of the control arrangement between two end positions in which it alternately achieves the admission of the compressed air into one, and discharge of the air from the other, actuating chamber. The spool valve is displaced due to the action of the respective limiting valves accommodated in individual bores of the control arrangement and displaced by the respective movable walls from their rest positions in which they admit the ambient pressure to the associated end faces to their active positions in which they admit the compressed air to the associated end faces of the spool valve. The spool valve carries sealing rings of a material that needs no lubrication, and is made, at least at its peripheral surface, of a material that also needs no lubrication, and the surface bounding the bore for the spool valve is hard-anodized, so that no external lubrication of the control arrangement, by lubricant entrained in the compressed air or otherwise, is needed.

IPC 1-7

F04B 43/06; F01L 25/06

IPC 8 full level

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CPC (source: EP US)

F01L 23/00 (2013.01 - EP); **F04B 43/0736** (2013.01 - EP US)

Citation (search report)

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