

Title (en)

RUNNING-DRY PROTECTION DEVICE FOR A DIAPHRAGM PISTON PUMP

Publication

EP 0129187 A3 19850410 (DE)

Application

EP 84106687 A 19840612

Priority

DE 3321959 A 19830618

Abstract (en)

[origin: EP0129187A2] 1. Device for protection against dry running of the metering piston of a piston diaphragm pump designed for the conveying of liquid media, characterised by at least one measurement sensor (3, 4), which is integrated into the pump head body (1) in the region of the preliminary conveying chamber (2) above a minimum liquid level (IV) still just quite covering the metering piston (6), with means connected therebehind for preliminary warning of a report of emptiness and/or for switching the pump off.

IPC 1-7

F04B 49/10

IPC 8 full level

F04B 23/06 (2006.01); **F04B 49/10** (2006.01)

CPC (source: EP)

F04B 23/06 (2013.01); **F04B 49/10** (2013.01)

Citation (search report)

- [A] DE 2651614 A1 19780524 - LANG APPARATEBAU GMBH
- [A] CH 498297 A 19701031 - JACQUES TOBLER AG [CH]
- [A] US 3862571 A 19750128 - VOGEL RONALD F

Cited by

AU736918B2; US6299419B1; EP1510698A2; WO9853208A1

Designated contracting state (EPC)

AT CH DE FR IT LI

DOCDB simple family (publication)

EP 0129187 A2 19841227; **EP 0129187 A3 19850410**; **EP 0129187 B1 19860924**; AT E22484 T1 19861015; DE 3321959 A1 19841220; DE 3460814 D1 19861030

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