

Title (en)

Leak detection in hydraulically driven membrane pump

Title (de)

Leckageüberwachung im Hydraulikdruckraum einer Membranpumpe

Title (fr)

Détection de fuites dans une pompe à membrane à commande hydraulique

Publication

EP 1477673 B1 20090819 (DE)

Application

EP 04011110 A 20040510

Priority

DE 10322221 A 20030516

Abstract (en)

[origin: EP1477673A2] The pump incorporates a membrane, a reciprocating piston and a pressure chamber over the piston. The pressure (Druck [bar]) is measured during the pressure stroke (Druckhub) and during the intake stroke (Saughub). At the end of the suction stroke, the graph of pressure plotted against time (Zeit [s]) dips briefly below ambient pressure. The time interval (Schnuffelfenster) between the start of this dip (t3) and the end of this dip (t2) is increased when the pump leakage increases.

IPC 8 full level

F04B 43/00 (2006.01); **F04B 43/067** (2006.01)

CPC (source: EP US)

F04B 43/009 (2013.01 - EP US); **F04B 43/067** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1477673 A2 20041117; **EP 1477673 A3 20060913**; **EP 1477673 B1 20090819**; DE 10322221 B3 20050127; DE 502004009909 D1 20091001; US 2004226344 A1 20041118; US 7000455 B2 20060221

DOCDB simple family (application)

EP 04011110 A 20040510; DE 10322221 A 20030516; DE 502004009909 T 20040510; US 84507504 A 20040514