

Title (en)

Early detection of failures in pump valves

Title (de)

Störungsfrüherkennung an Pumpenventilen

Title (fr)

Détection anticipée de pannes dans les soupapes de pompes

Publication

EP 1477678 B1 20070221 (DE)

Application

EP 04011109 A 20040510

Priority

DE 10322220 A 20030516

Abstract (en)

[origin: EP1477678A2] Monitoring method in which the increased operating noise caused by back flow of the transport fluid in a leaky valve in the closed state is taken as a measure for the size of the leak. The effective signal is monitored over time and compared with a reference signal for a pump with intact valves. When there is a predetermined noise level difference or change in difference due to increased operating noise, an early fault detection indicator is triggered. The invention also relates to a corresponding device for method implementation.

IPC 8 full level

F04B 51/00 (2006.01); **F16K 37/00** (2006.01)

CPC (source: EP US)

F04B 51/00 (2013.01 - EP US)

Cited by

EP4311937A1; CN105822537A; CN104895714A; DE102006055747A1; CN108661891A; DE102010034798A1; DE102010034800A1; WO2007099057A3; US8122905B2; DE102006055747B4

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DOCDB simple family (publication)

EP 1477678 A2 20041117; EP 1477678 A3 20050629; EP 1477678 B1 20070221; EP 1477678 B2 20170419; AT E354730 T1 20070315; DE 10322220 B3 20041007; DE 10322220 C5 20101014; DE 502004002932 D1 20070405; US 2004226346 A1 20041118; US 7069183 B2 20060627

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