

Title (en)

PIPE ABNORMALITY DETECTION SYSTEM, PIPE ABNORMALITY DETECTION METHOD AND PROGRAM

Title (de)

SYSTEM ZUR ERKENNUNG VON ROHRANOMALIEN, VERFAHREN ZUR ERKENNUNG VON ROHRANOMALIEN UND PROGRAMM

Title (fr)

SYSTÈME DE DÉTECTION D'ANOMALIE DE TUYAU, PROCÉDÉ DE DÉTECTION D'ANOMALIE DE TUYAU ET PROGRAMME

Publication

EP 3557154 A4 20200115 (EN)

Application

EP 16923903 A 20161215

Priority

JP 2016087434 W 20161215

Abstract (en)

[origin: EP3557154A1] A pipe abnormality detection system (100) is provided with: a pipe (110) which includes a flow inlet (111) into which water in a bathtub (200) flows, and a flow outlet (112) through which water flows out to the bathtub (200); a pump (121) which circulates the water between the pipe (110) and the bathtub (200); a pressure detection sensor (122) which detects the internal pressure of the pipe (110); and an output device (150) which outputs a signal indicating that an abnormality of the pipe (110) is detected when at least one among a difference between the pressure detected by the pressure detection sensor (122) when the pump (121) is stopped and the pressure detected by the pressure detection sensor (122) when the pump (121) is operating, and a rate of change in the difference relative to a rotational frequency of the pump (121), deviates from a predetermined range.

IPC 8 full level

F24D 19/10 (2006.01); **F24H 1/00** (2006.01)

CPC (source: EP)

F24D 19/1051 (2013.01); **F24D 17/00** (2013.01); **F24D 2220/046** (2013.01); **F24D 2220/209** (2013.01)

Citation (search report)

- [XA] JP 2012180972 A 20120920 - MITSUBISHI ELECTRIC CORP
- [XA] JP H11248242 A 19990914 - TOYOTOMI KOGYO CO LTD
- [XA] JP H0875243 A 19960319 - MATSUSHITA ELECTRIC IND CO LTD
- [XA] JP H04125155 U 19921116
- [XA] JP H058339 U 19930205
- See references of WO 2018109913A1

Cited by

EP4004447B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3557154 A1 20191023; **EP 3557154 A4 20200115**; **EP 3557154 B1 20211201**; JP 6785879 B2 20201118; JP WO2018109913 A1 20190624; WO 2018109913 A1 20180621

DOCDB simple family (application)

EP 16923903 A 20161215; JP 2016087434 W 20161215; JP 2018556132 A 20161215