

Title (en)

Method for operating a double pump or multi pump assembly

Title (de)

Verfahren zum Betrieb eines Doppelpumpen- oder Multipumpenaggregates

Title (fr)

Procédé de fonctionnement d'un agrégat de pompes doubles ou multipompes

Publication

EP 2469094 A3 20150506 (DE)

Application

EP 11009716 A 20111208

Priority

DE 102010055841 A 20101223

Abstract (en)

[origin: EP2469094A2] The method involves operating a pump assembly (1) either with two pumps (2a, 2b) or with one pump based on upper and lower limit values of an operating parameter. A value of the operating parameter is stored as a reference value, and volume flow conveyed by one of the pumps is reduced. Assigning of operating points to load areas is carried out based on reaction of another pump, where the upper or lower limit value is replaced by the reference value. Power received by the pump assembly in a synchronous operation is determined and stored as reference power. Independent claims are also included for the following: (1) a computer program with instructions for executing a method for operating a pump assembly (2) a pump assembly comprising two pumps.

IPC 8 full level

F04D 15/02 (2006.01)

CPC (source: EP)

F04D 15/029 (2013.01)

Citation (search report)

- [AD] EP 0864755 B1 20030813 - WILO AG [DE]
- [A] JP S56138478 A 19811029 - TOKYO SHIBAURA ELECTRIC CO, et al
- [A] DE 2616549 A1 19761021 - GUINARD POMPES
- [A] DE 19742799 A1 19990415 - KLEIN SCHANZLIN & BECKER AG [DE]
- [A] JP S59122798 A 19840716 - FUJI FACOM SEIGIYO, et al

Cited by

DE102014222962A1; DE102017223189A1; CN104619991A; CN113915117A; CN114279068A; US2019017513A1; CN109253094A; CN113944636A; CN11465771A; RU2740387C1; EP3428453A1; US2019017511A1; CN109253093A; RU2698560C1; EP3428452A1; CN109253092A; RU2689261C1; US9816509B2; US10801504B2; US10794384B2; US10801503B2; WO2014040627A1; WO2024194203A1; WO2019121753A1; EP3428453B1

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 2469094 A2 20120627; EP 2469094 A3 20150506; EP 2469094 B1 20161019; DE 102010055841 A1 20120628

DOCDB simple family (application)

EP 11009716 A 20111208; DE 102010055841 A 20101223