

Title (en)

METHOD FOR DETERMINING AN IMBALANCE OF A WASHING DRUM IN A WASHING MACHINE IN THE SPIN DRYER MODE, DRIVE APPARATUS AND WASHING MACHINE HAVING A DRIVE APPARATUS

Title (de)

VERFAHREN ZUM ERMITTELN EINER UNWUCHT BEI EINER WÄSCHETROMMEL EINER WASCHMASCHINE IM SCHLEUDERBETRIEB, ANTRIEBSVORRICHTUNG UND WASCHMASCHINE MIT EINER ANTRIEBSVORRICHTUNG

Title (fr)

PROCÉDÉ POUR DÉTERMINER UN BALOURD DANS UN TAMBOUR DE LAVAGE D'UN LAVE-LINGE EN MODE ESSORAGE, DISPOSITIF D'ENTRAÎNEMENT ET LAVE-LINGE COMPRENANT UN TEL DISPOSITIF D'ENTRAÎNEMENT

Publication

**EP 2467525 B1 20130710 (DE)**

Application

**EP 10744922 A 20100817**

Priority

- DE 102009028810 A 20090821
- EP 2010061919 W 20100817

Abstract (en)

[origin: WO2011020820A1] An imbalance in a washing drum 3 of a washing machine 1 is intended to be determined during a spin dryer mode. A method is provided in which the washing drum 3 is driven by a drive motor 5. An electrical AC voltage U12, U23, U13 is provided by means of an inverter 26 for each of the phases 7, 8, 9 of the drive motor 5, specifically from an intermediate-circuit DC voltage Uz. An electrical line current I1, I2, I3 is determined in at least one of the phases 7, 8, 9. In addition, even before the initiation of the spin dryer mode, an initial load in the washing drum and/or an amount of energy are/is determined, which amount of energy is that emitted to the drive motor, and is integrated during, in particular since the start of, a washing process prior to the spin dryer mode. The imbalance is determined as a function of measured values for this line current I1, I2, I3 and as a function of the initial load and/or the energy integrated during the washing process. In particular, a profile of electrical energy E which has been emitted since the start of the spin dryer mode to the drive motor 5 can be determined over the time t, and a gradient  $\frac{dE}{dt}$  of this profile V1, V2 can be used as the basis to determine the imbalance. A corresponding drive apparatus 2 as well as a washing machine 1 are also provided.

IPC 8 full level

**D06F 37/20** (2006.01); **D06F 34/16** (2020.01)

CPC (source: EP US)

**D06F 34/16** (2020.02 - EP US)

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 SE SI SK SM TR

DOCDB simple family (publication)

**DE 102009028810 A1 20110224**; CN 102482825 A 20120530; CN 102482825 B 20140910; EA 022451 B1 20160129; EA 201270299 A1 20120928; EP 2467525 A1 20120627; EP 2467525 B1 20130710; PL 2467525 T3 20131231; WO 2011020820 A1 20110224

DOCDB simple family (application)

**DE 102009028810 A 20090821**; CN 201080037191 A 20100817; EA 201270299 A 20100817; EP 10744922 A 20100817; EP 2010061919 W 20100817; PL 10744922 T 20100817