

Title (en)  
Drum type washing machine

Title (de)  
Trommelwaschmaschine

Title (fr)  
Machine à laver à tambour

Publication  
**EP 2103726 B1 20110309 (EN)**

Application  
**EP 09150519 A 20090114**

Priority  
JP 2008063474 A 20080313

Abstract (en)  
[origin: EP2103726A1] A drum type washing machine (1) includes a housing, a washtub unit (7) accommodated in the housing, a damper (70) for elastically supporting the washtub at a supporting position, a vibration sensor (40) for detecting a vibration of the washtub. The vibration sensor outputs a first signal and a second signal corresponding to a component of vibration of a portion of the washtub along a first direction and a component of the vibration along a second direction perpendicular to the first direction, respectively. The portion of the washtub is between the center plane of the washtub and the opening of the washtub. A controller determines, based on the first and second signals output from the vibration sensor, whether or not the laundry is distributed in the rotary drum in a front unbalance in which the laundry is biased from the center plane towards the opening of the rotary drum, and whether or not the laundry is distributed in the rotary drum in a rear unbalance in which the laundry is biased from the center plane towards the bottom of the rotary drum. The drum type washing machine enables to detect unbalance of a laundry even when the laundry is biased in the rotary drum towards a bottom of the rotary drum.

IPC 8 full level  
**D06F 37/20** (2006.01); **D06F 33/76** (2020.01); **D06F 34/08** (2020.01)

CPC (source: EP US)  
**D06F 33/76** (2020.02 - EP US); **D06F 34/08** (2020.02 - EP US); **D06F 2103/26** (2020.02 - EP US)

Cited by  
CN112411124A; CN113265836A; EP2496745A4; EP2470706A4; EP3760781A1; US11674251B2; US9932699B2; US9822473B2; US10533275B2; US9145634B2; JP2014068791A; EP2496749B1; EP2496748B1

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