

Title (en)
WASHING MACHINE

Title (de)
WASCHMASCHINE

Title (fr)
MACHINE À LAVER

Publication
EP 2455529 A4 20131120 (EN)

Application
EP 10799604 A 20100712

Priority
• JP 2010004505 W 20100712
• JP 2009165660 A 20090714

Abstract (en)
[origin: EP2455529A1] A washing machine includes a cabinet, an outer tank, an inner tank, a circulation tube, and a circulation pump. The outer tank is held in the cabinet. The inner tank is rotatably mounted in the outer tank so as to accommodate and stir laundry. The circulation tube draws washing water kept in the outer tank and returns it to the outer tank. The circulation pump is located at some midpoint in the circulation tube so as to circulate the washing water. The washing machine further includes, at some midpoint in the circulation tube, a washing water-condition detector for detecting the condition of the washing water. This structure ensures the amount of washing water circulating through the washing water-condition detector, without depending on the operation of the inner tank. Thus, the washing machine can detect the degree of contamination of washing water with high accuracy while maintaining its washing efficiency.

IPC 8 full level
D06F 33/02 (2006.01); **D06F 23/02** (2006.01); **D06F 39/08** (2006.01)

CPC (source: EP US)
D06F 34/22 (2020.02 - EP US); **D06F 39/083** (2013.01 - EP US); **D06F 2103/20** (2020.02 - EP US); **D06F 2103/38** (2020.02 - EP US); **D06F 2105/06** (2020.02 - EP US); **D06F 2105/46** (2020.02 - EP US); **D06F 2105/58** (2020.02 - EP US)

Citation (search report)
• [X1] JP 2000051576 A 20000222 - SHARP KK
• [XA] EP 1900867 A1 20080319 - ELECTROLUX HOME PROD CORP [BE]
• [X1] DE 19748706 A1 19990506 - BOSCH SIEMENS HAUSGERAETE [DE]
• [XPI] JP 2010119634 A 20100603 - PANASONIC CORP
• [A] JP H04240485 A 19920827 - MATSUSHITA ELECTRIC IND CO LTD
• See references of WO 2011007540A1

Citation (examination)
• US 5446531 A 19950829 - BOYER JEFFREY E [US], et al
• US 5731868 A 19980324 - OKEY M CHRISTOPHER [US], et al
• DE 10011692 A1 20010913 - AWECO APPLIANCE SYS GMBH & CO [DE]

Cited by
EP3428339A4; ITTO20120637A1; EP3546635A1; EP3505668A1; EP3875665A4; US11214908B2; WO2014013388A1

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)
EP 2455529 A1 20120523; EP 2455529 A4 20131120; CN 102471974 A 20120523; JP 2011019607 A 20110203; TW 201109493 A 20110316; US 2012103026 A1 20120503; WO 2011007540 A1 20110120

DOCDB simple family (application)
EP 10799604 A 20100712; CN 201080031728 A 20100712; JP 2009165660 A 20090714; JP 2010004505 W 20100712; TW 99122823 A 20100712; US 201013383027 A 20100712