

Title (en)

Washing machine for linens or the like having a device for indicating the end of the emptying phase or for giving a warning of its malfunctioning.

Title (de)

Waschmaschine für Wäsche oder andere Güter mit einer Vorrichtung zur Anzeige des Endes des Abpumpens oder zur Meldung einer Fehlfunktion.

Title (fr)

Machine à laver le linge ou autre munie d'un dispositif indiquant la fin de vidange ou prévenant de son mauvais fonctionnement.

Publication

EP 0107234 A1 19840502 (FR)

Application

EP 83201436 A 19831007

Priority

FR 8216999 A 19821011

Abstract (en)

1. A washing machine for laundry or other materials, which at the bottom of a tub (18) is equipped with an assembly of an electric motor (11, 12) and a draining pump (17) which are coupled to each other and which have a common substantially horizontal shaft (13), which electric motor comprises a stator (11) and a rotor (12), the coupling being made at the end of the rotor shaft of the motor, the rotor being axially movable relative to the stator, thus generating a signal which is applied to control devices for said electric motor/pump assembly and for the operation of the machine, the control devices comprising a central device (28) and a two-position electrical contactor (25) (27) (28) arranged in an electric circuit and actuated by the free end (21) of the common pump-and-motor shaft during the movement of the shaft, characterized in that when the draining pump is inoperative the rotor is slightly off-centred relative to the stator in the axial direction by means of a spring and when the draining pump is operative the shaft of the rotor and the draining pump and move axially to occupy two positions of which one position is opposed by the force of the spring, the off-centred position corresponding to operation of the pump under load, i.e. water being taken in by the pump, and the other position, the substantially centred position, corresponding to no-load operation of said pump, i.e. without water intake by the pump, the signal produced in the electric circuit in the case that the pump does not take in water influencing the operation of the draining pump via the central control device (29), and during the appearance of said signal the central control device (29) receives information about the water level from a water-level detector (34) arranged in the tub (18) of the machine and causes an alarm signal to be generated when the water level is not close to zero.

Abstract (fr)

La machine comporte, d'une part, un ensemble pompe (17) moteur électrique (11) (12) de même axe (13) et couplé l'un à l'autre, moteur et pompe pouvant se déplacer parallèlement à cet axe et occuper essentiellement deux positions, l'une correspondant à un fonctionnement en charge, l'autre au fonctionnement à vide de cette pompe, d'autre part, des organes de commande et contrôle de fonctionnement qui sont constitués, outre d'un organe central (29) de commande, d'un détecteur (34) de niveau d'eau dans la cuve (18) de lavage et d'un contacteur électrique (25) (27) (28) à deux positions placé dans un circuit électrique et actionné par l'extrémité libre (21) de l'axe commun à la pompe et au moteur. Le signal qui naît dans le circuit électrique, en cas de non admission d'eau dans la pompe, ordonne son arrêt et simultanément, en cas d'indication d'une vidange inachevée, l'émission d'un signal d'alarme. Application: lavage de linge.

IPC 1-7

D06F 39/08; **F04D 15/02**

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [A] DE 2631344 A1 19780119 - PHILIPS PATENTVERWALTUNG
- [AD] US 2869008 A 19590113 - VICTOR CARLSEN
- [A] FR 2086857 A5 19711231 - PENARROYA MINIERE METALL
- [A] DE 3003580 A1 19801023 - SCHWARZENBERG WASCHGERAETE
- [A] FR 1336973 A 19630906 - CONSTRUCTA WERKE GMBH
- [A] US 2592314 A 19520408 - MORTON ELDRED O
- [A] US 2562772 A 19510731 - CLARK EARL K

Cited by

EP0321295A3; US9840803B2; WO9859174A1

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