

Title (en)
COUNTER FLOW WASHING MACHINE

Publication
EP 0141980 B1 19880316 (DE)

Application
EP 84111330 A 19840922

Priority
DE 3341504 A 19831117

Abstract (en)
[origin: US4607509A] When both colored and white wash are to be laundered together, one has the problem that pigment particles are transported from the colored pieces to the white pieces and the white pieces are discolored. This problem will be eliminated in a novel counterflow cycling washing machine by providing additional components besides the control components for the counterflow which produce a reversal of the usual counterflow to concurrent flow when a colored piece of wash is in the machine or the washing zone. For the case of concurrent flow operation the counterflow pump is shut off and the counterflow discharge outlet valve and the counterflow input tube valve are closed, while the valve in the concurrent flow discharge outlet positioned near the counterflow input tube and the valve in the concurrent flow input tube positioned near the counterflow discharge outlet are opened.

IPC 1-7
D06F 31/00

IPC 8 full level
D06F 31/00 (2006.01)

CPC (source: EP US)
D06F 31/005 (2013.01 - EP US)

Citation (examination)
DE 2949228 A1 19810611 - ENGELHARDT & FOERSTER [DE]

Cited by
EP2279296A4; CN104583481A; EP2885451A4; US9745683B2

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI NL

DOCDB simple family (publication)
EP 0141980 A2 19850522; EP 0141980 A3 19860326; EP 0141980 B1 19880316; AT E33046 T1 19880415; DE 3341504 A1 19850530; DE 3341504 C2 19891019; DE 3469926 D1 19880421; JP H0430320 B2 19920521; JP S60119987 A 19850627; US 4607509 A 19860826; US 4616372 A 19861014; US 4694665 A 19870922

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EP 84111330 A 19840922; AT 84111330 T 19840922; DE 3341504 A 19831117; DE 3469926 T 19840922; JP 23772084 A 19841113; US 67258284 A 19841116; US 81913586 A 19860115; US 88089186 A 19860701