

Title (en)
IMPULSE DRYER ROLL WITH SHELL OF HIGH THERMAL DIFFUSIVITY

Title (de)
IMPULSTROCKNERWALZE MIT EINEM MANTEL MIT HOHEM THERMISCHEN DIFFUSIONSVERMÖGEN

Title (fr)
CYLINDRE SECHEUR A IMPULSIONS COMPORTANT UNE ENVELOPPE A DIFFUSIVITE THERMIQUE ELEVEE

Publication
EP 0723612 B1 19980729 (EN)

Application
EP 94929104 A 19940829

Priority
• US 9409566 W 19940829
• US 13581693 A 19931013

Abstract (en)
[origin: WO9510659A1] In a paper-making machine a roll (22) is composed of two parts: a metallic base shell (38), which is constructed of conventional spun-cast steel alloy; and a thin outer shell (40) constructed of a material of high thermal diffusivity. The outer shell (40) is one to a few tenths of an inch thick and is in intimate contact with the surface of the steel alloy base shell (38). Typical materials of high thermal diffusivity for uses in the outer shell (40) are copper and aluminum. The roll (22) may be formed by flame spraying a layer of copper approximately two-tenths of an inch thick on the surface of a steel alloy base shell (38). The roll (22) is employed where improved heat transfer to a paper web is desired for example in an impulse paper dryer, or in a calendar.

IPC 1-7
D21F 3/02; **D21G 1/02**; **D21F 5/02**

IPC 8 full level
D21F 3/02 (2006.01); **D21F 5/02** (2006.01); **D21G 1/00** (2006.01); **D21G 1/02** (2006.01)

CPC (source: EP KR)
D21F 3/0218 (2013.01 - EP KR); **D21F 3/0281** (2013.01 - EP KR); **D21F 5/024** (2013.01 - EP KR); **D21G 1/028** (2013.01 - EP KR)

Cited by
US6551457B2; WO2005021867A3

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
WO 9510659 A1 19950420; BR 9407784 A 19970318; CA 2173140 A1 19950420; CA 2173140 C 20001031; CN 1039929 C 19980923; CN 1133076 A 19961009; DE 69412113 D1 19980903; DE 69412113 T2 19990325; EP 0723612 A1 19960731; EP 0723612 B1 19980729; FI 961626 A0 19960412; FI 961626 A 19960607; JP 2727135 B2 19980311; JP H08510803 A 19961112; KR 960705107 A 19961009; PL 175270 B1 19981231; PL 313914 A1 19960805

DOCDB simple family (application)
US 9409566 W 19940829; BR 9407784 A 19940829; CA 2173140 A 19940829; CN 94193754 A 19940829; DE 69412113 T 19940829; EP 94929104 A 19940829; FI 961626 A 19960412; JP 51177794 A 19940829; KR 19960701861 A 19960410; PL 31391494 A 19940829