Title (en)

Method for converting a multi-roll calendar

Title (de)

Umbauverfahren eines Mehrwalzenkalanders

Title (fr)

Procédé de démontage d'une calandre à plusieurs rouleaux

Publication

EP 2385172 A1 20111109 (DE)

Application

EP 11175279 A 20100916

Priority

- EP 10177009 A 20100916
- DE 102009046918 A 20091120

Abstract (en)

The multiroll calendar comprises a roll stack, in which two consecutive rolls form a roller nip for calendaring wood free coated paper on a brightness according to Gardner of greater than 75% or natural gravure papers on a pps-10 S-roughness under 1.15 mu m or film-coated light-weight coated papers on a brightness according to Gardner over 55%, where the roll stack is structured in a following row sequence such as a hard controlled deflection top roller (2), an elastic center roller with a thin metallic surface layer, a heatable hard middle roller, and two elastic middle rollers. The multiroll calendar comprises a roll stack, in which two consecutive rolls form a roller nip for calendaring wood free coated paper on a brightness according to Gardner of greater than 75% or natural gravure papers on a pps-10 S-roughness under 1.15 mu m or film-coated light-weight coated papers on a brightness according to Gardner over 55%, where the roll stack is structured in a following row sequence such as a hard controlled deflection top roller (2), an elastic center roller with a thin metallic surface layer, a heatable hard middle roller, two elastic middle rollers with a thin metallic surface layer, a heatable hard middle roller, an elastic middle roller with a thin metallic surface layer and a hard controlled deflection bottom roller. The elastic roller with a metal surface layer in the calendaring operation has a surface temperature of 90-130? oC. A line load of 300 N/mm acts in the roller nip in order to receive a nip length in web direction of 10 mm. A pressure element (14) is provided, in which the paper web (11) is designed before or after the roller nip over a contact angle of 5[deg] on the surface of a smooth, hard and heated roller. An independent claim is included for a method for converting multi-roll calendars.

Abstract (de)

Die Erfindung betrifft ein Verfahren zum Umbau eines Mehrwalzenkalanders mit einem Walzenstapel. Um die hochwertigen Papiere mit weniger Walzen satinieren zu können als üblich, versieht man die Ober- und Unterwalze (2, 9) mit einem Mantel mit einem elastischen Belag, wenn sie eine harte Oberfläche aufweisen, bzw. versieht die Ober- und Unterwalze (2, 9) mit einem Mantel mit harter, glatter Oberfläche, wenn sie einen elastischen Belag aufweisen, weiterhin versieht man wenigstens eine Walze mit elastischem Belag (3, 5, 6, 8) mit einer metallischen Spritzschicht und weiterhin entfernt man die zweite Walze und vorletzte Walze aus dem Walzenstapel.

IPC 8 full level

D21G 1/00 (2006.01); **D21G 1/02** (2006.01)

CPC (source: EP)

D21G 1/00 (2013.01); **D21G 1/0233** (2013.01); **D21G 1/0253** (2013.01)

Citation (applicant)

- DE 19508352 A1 19960912 - VOITH SULZER FINISHING GMBH [DE]
- EP 1557490 A1 20050727 - VOITH PAPER PATENT GMBH [DE]
- DE 3937246 A1 19900531 - VALMET PAPER MACHINERY INC [FI]

Citation (search report)

- [A] DE 19508352 A1 19960912 - VOITH SULZER FINISHING GMBH [DE]
- [A] EP 1557490 A1 20050727 - VOITH PAPER PATENT GMBH [DE]

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

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BA ME RS

DOCDB simple family (publication)

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DOCDB simple family (application)

EP 10177009 A 20100916; CN 201010558162 A 20101119; DE 102009046918 A 20091120; EP 11175279 A 20100916