Title (en)

Method for preventing vibration of a calender and a calender with an arrangement for preventing vibration

Title (de)

Verfahren zum Vermeiden von Schwingungen eines Kalenders und Kalender mit einer Anordnung zum Vermeiden von Schwingungen

Title (fr)

Procédé pour empêcher les vibrations d'une calandre et calandre avec agencement permettant d'empêcher les vibrations

Publication

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Application

EP 13168415 A 20130520

Priority

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Abstract (en)

The present invention relates to a method for preventing vibration of a calender comprising at least one fly roll (15) and a calender roll stack with at least three calender rolls (12, 13, 14) forming at least two calendering nips (N), in which method position (P) of the at least one fly roll (15) is adjusted relative to the calender roll stack to prevent fiber web induced nip vibration, or barring. The position (P) of the at least one fly roll (15) is calculated based on frequency of nip vibration, length (L) of travel distance of a fiber web (W) from one calendering nip (N) to the next calendering nip (N) and running speed of the calender (10). The position (P) of the at least one fly roll (15) is defined by a control device (20) automatically on basis of measurements of vibration and/or noise and/or fiber web caliber to prevent the nip vibration, or barring, and the position of the at least one fly roll (15) is defined in 0,5 s - 5 min. The invention also relates to a calender with an arrangement for preventing vibration, which calender comprises a calender roll stack with at least three calender rolls (12, 13, 14) forming at least two calendering nips (N) and at least one fly roll (15) position-adjustable relative to the calender roll stack to prevent fiber web induced nip vibration, or barring. The arrangement for preventing vibration comprises a sensor (21) for measuring vibration in the calender (10) and/or a sensor (24) for measuring noise at the calender (10) and/or a measurement device (23) for measuring caliber of the fiber web (W) and a control device (20) that based on the measurement information calculates the position (P) for the at least one fly roll (15) to prevent the barring and the position (P) of the at least one fly roll (15) is defined in 0,5 s - 5 min by the control de-vice.

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D21G 1/008 (2013.01); **D21G 9/0045** (2013.01); D21G 1/0086 (2013.01)

Citation (applicant)

- US 6892631 B2 20050517 - SCHEIDLER EVA [DE], et al
- EP 1275777 A1 20030115 - VOITH PAPER PATENT GMBH [DE]
- US 6902691 B2 20050607 - VAN HAAG ROLF [DE], et al
- EP 1275775 A1 20030115 - VOITH PAPER PATENT GMBH [DE]
- US 6851356 B2 20050208 - HAAG ROLF VAN [DE]
- EP 1275776 A1 20030115 - VOITH PAPER PATENT GMBH [DE]
- DE 102006030684 A1 20070125 - METSO PAPER INC [FI]

Citation (search report)

- [X] WO 2008049973 A2 20080502 - METSO PAPER INC [FI], et al
- [A] DE 10036574 C1 20010816 - VOITH PAPER PATENT GMBH [DE]

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