

Title (en)

Method and arrangement for computing and regulation of the distribution of linear load in a multi-nip calender and a multi-nip calender

Title (de)

Verfahren und Vorrichtung zur Berechnung und Steuerung der linearen Lastverteilung in einem Mehrspalt-Kalender und Mehrspalt-Kalender

Title (fr)

Procédé et disposition permettant de calculer et de réguler la distribution de charge linéaire dans une calandre à multiples pinces et calandre à multiples pinces

Publication

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Application

**EP 04003041 A 19980507**

Priority

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Abstract (en)

The invention concerns a method and an arrangement for computing and regulation of the distribution of linear load in a multi-nip calender. The material web (W) is passed through the nips (N1...N9) in the set of rolls (12), which set of rolls comprises a variable-crown upper roll (13), a variable-crown lower roll (14) and intermediate rolls (15...22) fitted between the upper and lower rolls (13, 14). All the rolls in the set of rolls are supported so that, when the nips (N1...N9) are closed, the bending lines of the rolls are curved downwards. In the computing and regulation of linear loads, the physical properties affecting the bending of each intermediate roll (15...22) under load, such as bending rigidity, mass, shape, and material properties, are taken into account. The ratio of the linear loads applied to the intermediate rolls (15...22), the own weight of the rolls, and of the support forces applied to the rolls is regulated so that the set of rolls is in a state of equilibrium and in a predetermined state of deflection. The invention also concerns a multi-nip calender that carries out the method. <IMAGE>

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Citation (search report)

- [AD] US 5438920 A 19950808 - KOIVUKUNNAS PEKKA [FI], et al
- [A] US 5347446 A 19940913 - IINO YUTAKA [JP], et al

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