

Title (en)

Device for controlling an unevenness of a sliver in a spinning machine.

Title (de)

Vorrichtung zur Vergleichmässigung eines Faserbandes bei einer Spinnmaschine.

Title (fr)

Dispositif pour régulariser la section d'un ruban de fibres sur une machine de filature.

Publication

EP 0649923 A1 19950426 (EN)

Application

EP 94810612 A 19941024

Priority

JP 29013993 A 19931025

Abstract (en)

An electrostatic type detector 10 as a short cycle unevenness sensor is arranged upstream from a set of back rollers, while a long cycle unevenness sensor is arranged downstream from a set of front rollers. The detector 10 is arranged in a high frequency bridge circuit 25, which issues a signal indicating the short cycle unevenness of a sliver. A correction feedback circuit 28 is provided for directing the output signal to a variable capacitor 23 in the bridge circuit 25. An integrator 30 is provided in the correction feedback circuit 28 to obtain an average signal from the sliver unevenness detected by the detector 10, which average signal is used for varying the capacitance value of the variable capacitor 23. Such a correction feedback circuit allows the center of the operating range of the bridge circuit to be centered on the linear portion of the output characteristic of the bridge circuit. Furthermore, the value of the time constant of the integrator 30, in relation to the short cycle unevenness, is set to eliminate a low frequency components caused by long cycle unevenness as well as by temperature drift. As a result, only a component originating from the short cycle unevenness sensor is combined with a long cycle unevenness signal from the long cycle unevenness sensor to provide a signal for controlling the drafting ratio of the back and front rollers, whereby an unevenness of the sliver can be effectively reduced. <IMAGE>

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CPC (source: EP)

D01H 5/38 (2013.01)

Citation (search report)

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Cited by

GB2344111A; GB2344111B; US6679043B2; WO2004018748A1; US6223609B1

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