

Title (en)

Apparatus for the continuous mass control of a fibre ribbon.

Title (de)

Vorrichtung zum kontinuierlichen Ermitteln der Masse eines Faserbandes.

Title (fr)

Dispositif pour la détection continue de la masse d'une bande de fibres.

Publication

EP 0192835 A1 19860903 (DE)

Application

EP 85115578 A 19851207

Priority

CH 71985 A 19850215

Abstract (en)

[origin: US4646387A] An arrangement for continuously determining the density of an elongated strip-shaped web of fiber sliver in the course of a spinning process in order to generate control signals for use in controlling the operation of machine elements operative for equalizing the distribution of the fiber sliver includes two of stepped rollers which together delimit, at a their nip region, a confining space for the passage of the fiber sliver web therethrough. One of the rollers is mounted on a support for rotation about a stationary axis and is driven in rotation, while the other roller is mounted on the support for free rotation about another axis which is parallel to the stationary axis and defines an imaginary plane therewith, as well as for movement along the imaginary plane against a spring force away from the one roller, so that the fiber sliver is compressed and moves the other roller to a greater or lesser degree away from the one roller as it passes through the confining space, depending on its density. A contactless proximity sensing element is arranged along the imaginary plane and has a sensing surface which faces a portion of the peripheral surface of the other roller so as to detect the extent of displacement of the other roller relative to the one roller and issue an electric signal representative of the detected value.

Abstract (de)

Faserbänder (1) müssen im Laufe des Spinnprozesses gemessen werden, d.h. es muss deren Masse ermittelt werden, um daraus Signale zu erzeugen, mittels welchen die zur Vergleichsmässigung dieser Masse notwendigen Maschinenelemente (nicht gezeigt) gesteuert werden können. Zu diesem Zweck verwendet man sogenannte Stufenwalzenpaare, d.h. profilierte Walzen (2 und 3), welche eine beidseitig begrenzte Durchgangsnut (4) für das Faserband (1) definieren, durch welche das Faserband (1) komprimiert hindurchgeführt wird. Eine (3) der beiden Walzen ist dabei bewegbar angeordnet, so dass ein zwischen dieser Walze und einer Tastfläche (19) eines Sensors (18) gebildeter Spalt (A) durch diese Bewegungen vergrößert oder verkleinert wird. Diese Spaltveränderungen bewirken eine Spannungsveränderung im Sensor, welche als Signal für die genannte Steuerung ausgewertet wird.

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D01G 23/06; **D01H 5/38**

IPC 8 full level

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CPC (source: EP US)

D01G 23/06 (2013.01 - EP US); **D01H 5/38** (2013.01 - EP US); **D01H 13/22** (2013.01 - EP US)

Citation (search report)

- [Y] FR 2031012 A5 19701113 - ZINSER TEXTILMASCHINEN GMBH
- [Y] FR 2211549 A1 19740719 - RIETER AG MASCHF [CH]
- [A] GB 957625 A 19640506 - COTTON SILK & MAN MADE FIBRES
- [A] CH 490526 A 19700515 - RIETER AG MASCHF [CH]
- [A] GB 2061338 A 19810513 - ELITEX ZAVODY TEXTILNIHO

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