

Title (en)

METHOD AND APPARATUS FOR AUTOMATICALLY LEVELLING SLIVER DENSITY VARIATIONS IN TEXTILE MACHINES SUCH AS CARDING OR DRAWING MACHINES, AND THE LIKE

Publication

EP 0271115 B1 19910424 (DE)

Application

EP 87118414 A 19871211

Priority

CH 495186 A 19861212

Abstract (en)

[origin: US4854011A] For the automatic compensation of density or thickness variations of fiber material at textile machines there is measured the density of a fiber material mass fed to a fiber feed device and the density of the fiber material mass at the textile machine outlet. The resultant measurement signals are delivered to a control for regulating the rotational speed of a feed roll of the fiber feed device in accordance with both measured density signals. The fiber feed device comprises the feed roll and a coating feed plate. The feed roll, although rotatable, is spatially stationary and is pivotal from a starting position in the absence of the fiber mass into an operative position into contact with an abutment when there is present a fiber mass whose density variations are to be detected. By positionally fixing the feed plate during the detection operation different forces arise, depending upon the thickness or density of the fiber mass, in the nipping zone between the feed roll and the feed plate. These different forces can be detected by different measuring elements which produce the measurement signals delivered to the control. Due to the rotational speed variation of the feed roll there are compensated irregularities in the thickness or density of the mass of fiber material in the nipping zone during transfer of the fiber mass from the feed plate to a coating element such as a licker-in roll in the case of a card constituting the textile machine.

IPC 1-7

D01G 23/06

IPC 8 full level

D01G 15/36 (2006.01); **D01G 23/06** (2006.01)

CPC (source: EP US)

D01G 23/06 (2013.01 - EP US)

Cited by

US5052080A; CN111979614A; US5915509A; EP0799915A3; DE19855571A1; US6163931A

Designated contracting state (EPC)

CH DE GB IT LI

DOCDB simple family (publication)

EP 0271115 A2 19880615; EP 0271115 A3 19880727; EP 0271115 B1 19910424; DE 3769610 D1 19910529; IN 170275 B 19920307; JP S63159528 A 19880702; US 4854011 A 19890808; US 5014395 A 19910514

DOCDB simple family (application)

EP 87118414 A 19871211; DE 3769610 T 19871211; IN 741MA1987 A 19871015; JP 31240387 A 19871211; US 13227487 A 19871210; US 25876788 A 19881019