

Title (en)

METHOD FOR FEEDING A PLURALITY OF YARNS UNDER CONTROLLED TENSION TO A TEXTILE MACHINE

Title (de)

VERFAHREN ZUR ZUFÜHRUNG EINER VIELZAHL VON FÄDEN UNTER KONTROLLIERTER SPANNUNG AN EINE TEXTILMASCHINE

Title (fr)

PROCÉDÉ D'ALIMENTATION D'UNE PLURALITÉ DE FILS SOUS TENSION CONTRÔLÉE A UNE MACHINE TEXTILE

Publication

EP 3763651 B1 20211027 (EN)

Application

EP 20180925 A 20200618

Priority

IT 201900011451 A 20190711

Abstract (en)

[origin: EP3763651A1] A method for feeding a plurality of yarns under controlled tension to a textile machine by way of respective feeders (F1,1, F1,2 ..., FY,X), the tension of the yarn fed by a plurality of feeders (F1,1, F1,2 ..., FY,X) being monitored by respective tension sensors (S1,1, S1,2 ..., SY,X) which are arranged immediately downstream of the feeder and are connected to a control unit which modulates an adjustment parameter of the feeder on the basis of the signal received from the tension sensor (S1,1, S1,2 ..., SY,X) in order to stabilize the tension at an operating tension that can be configured by the user. The feeders (F1,1, F1,2 ..., FY,X) are located on multiple rows (L1, L2, ..., LY) at progressively increasing distances from the textile machine (M), and they undergo a calibration procedure for calibrating the respective operating tensions, in which a same operating tension is set which is equal to a desired tension, on two reference feeders (Fa, Fb) of one of the rows (L1, L2, ..., LY); the real tensions (TRa and TRb) are measured of the yarns (Ha and Hb) fed by the reference feeders (Fa, Fb) by way of respective tension sensors (Za and Zb) which are located immediately upstream of the textile machine (M); backwards-adjusting the operating tensions (TLa and TLb) of the reference feeders (Fa and Fb) so that the respective real tensions (TRa and TRb) correspond to the desired tension; the operating tension of the remaining feeders of the row is set on the basis of a preset function which correlates the position of the feeder with the respective operating tension and, in relation to the reference feeders (Fa and Fb), returns the operating tension values (TLa and TLb) that were adjusted previously.

IPC 8 full level

B65H 59/38 (2006.01); **B65H 51/20** (2006.01); **B65H 51/30** (2006.01)

CPC (source: CN EP)

B65H 51/20 (2013.01 - EP); **B65H 51/30** (2013.01 - EP); **B65H 59/385** (2013.01 - CN); **B65H 59/388** (2013.01 - EP); **B65H 2557/63** (2013.01 - CN); **B65H 2601/525** (2013.01 - CN); **B65H 2701/31** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3763651 A1 20210113; **EP 3763651 B1 20211027**; CN 112209179 A 20210112; CN 112209179 B 20230822; ES 2902632 T3 20220329; IT 201900011451 A1 20210111

DOCDB simple family (application)

EP 20180925 A 20200618; CN 202010636290 A 20200703; ES 20180925 T 20200618; IT 201900011451 A 20190711