

Title (en)

Method and device for optimizing the unwinding speed on a creel

Title (de)

Verfahren zur Optimierung der Abzugsgeschwindigkeit an einem Gatter und Vorrichtung

Title (fr)

Procédé et dispositif d'optimisation de la vitesse de déroulage sur un cantre

Publication

EP 1245705 A2 20021002 (DE)

Application

EP 01129042 A 20011207

Priority

DE 10103892 A 20010130

Abstract (en)

To optimize the yarn take-off speed from a creel, where the yarns are taken over the head of the bobbins and around deflector at tensioning grids, the size of the yarn balloons are registered by a monitor at least at one bobbin. The size of the yarn balloon is modified by altering the take-off speed, according to the monitor measurements, to an adjusted setting between maximum and minimum balloon dimensions. <??>To optimize the yarn take-off speed, at a creel, the yarn balloon dimension is measured on a tangent or breach of the given dimensions at the minimum or maximum balloon size, with measurements taken on a breach of the maximum/minimum thresholds. The yarn balloon size is measured at least at two bobbins, and the adjustment is made to the yarn balloon with the larger dimensions, and the adjustment action ends on reaching the maximum yarn take-off speed. The yarn draw tension is measured, and the balloon size adjustment action ends when the yarn tension is at a maximum level. The gap between the yarn deflection points and the bobbins (10) is altered in steps. The balloon size is adjusted after each step by resetting the take-off speed. An Independent claim is included for an assembly to control the yarn take-off speed from the bobbins in a creel, to be passed over deflection points. Preferred Features: The monitors to measure the yarn balloon dimensions are connected to a control unit, which is linked to a speed control. The monitor is located at a gap of half the interval (T2) of the creel to a bobbin axis (26), with two monitors for two bobbins or one monitor covers at least two bobbins. The control unit has a link to a yarn tension monitor, and a connection to the drive at the tensioning grid.

Abstract (de)

Beim Abzug von Fäden von Spulen über Kopf und über Umlenkstellen bilden die Fäden Ballone, deren Größe mit zunehmender Abzugsgeschwindigkeit wächst. Die Ballongröße darf jedoch nicht größer sein als die Hälfte des geringsten Abstandes der Spulenachsen benachbarter Spulen. Größere Ballone können zum Ineinanderschlagen der Ballone benachbarter Spulen und dadurch zu Fadenbrüchen führen. Es soll eine möglichst hohe Abzugsgeschwindigkeit ohne Anstieg von Fadenbrüchen ermöglicht werden. Erfindungsgemäß wird die Ballongröße an mindestens einer Spulstelle mit Meßmitteln erfaßt und durch Verändern der Abzugsgeschwindigkeit in Abhängigkeit von der gemessenen Ballongröße eingestellt. Die Einstellung der Ballongröße erfolgt auf einen Wert in einem Bereich kleiner oder gleich einer maximalen Ballongröße und größer oder gleich einer minimalen Ballongröße. <IMAGE>

IPC 1-7

D02H 13/12; **D02H 1/00**; **B65H 59/38**

IPC 8 full level

B65H 59/38 (2006.01); **D02H 1/00** (2006.01); **D02H 13/12** (2006.01)

CPC (source: EP)

B65H 59/384 (2013.01); **D02H 1/00** (2013.01); **D02H 13/12** (2013.01); **B65H 2513/11** (2013.01); **B65H 2701/31** (2013.01)

Cited by

WO2017079851A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

DE 10103892 A1 20020808; CN 1369583 A 20020918; EP 1245705 A2 20021002; EP 1245705 A3 20041208

DOCDB simple family (application)

DE 10103892 A 20010130; CN 02103209 A 20020130; EP 01129042 A 20011207