

Title (en)

Method of and device for making random cross-wound bobbins

Title (de)

Verfahren und Vorrichtung zum Herstellen von Kreuzspulen in wilder Wicklung

Title (fr)

Procédé et dispositif pour fabriquer des bobines à spires croisées au hasard

Publication

**EP 0816277 B1 20000329 (DE)**

Application

**EP 97108839 A 19970603**

Priority

DE 19625511 A 19960626

Abstract (en)

[origin: EP0816277A2] A method for producing crossover reels with random winding entails winding a yarn coating on an initially empty core to form a reel where the apparatus used throughout the winding sequence includes a friction roller to drive the reel and means for sensing and evaluating reel and roller angular speeds so that the current coating size (  $\Delta$  ) is continuously determined during the winding procedure. Also claimed is the apparatus used in the method as above and including the roller and reel speed sensors and coating thickness evaluating units (27, 28, 29). Preferably determination of current coating thickness is given by a mathematical filter developed from an equation (2a, 2b) giving instantaneous reel diameter (dsp) versus winding time or versus number of reel rotations, current thickness being demonstrated by a curve over time or reel diameter. The diameter is formed from the current coating values and compared to a limit corresponding to maximum diameter, winding being stopped when the limit is reached. Current values are compared to preset values at least in ribbon formation zones and set to the preset values. The evaluation unit includes the mathematical filter (29) yielding the reel (13') diameter, the comparator (31) which sends the signal to stop winding and units (32, 34) for displaying indicating the trend of coating thickness (  $\Delta$  ). A second comparator (35) sends adjusting signals when actual and preset thicknesses deviate.

IPC 1-7

**B65H 54/38**; **B65H 63/00**

IPC 8 full level

**B65H 54/38** (2006.01); **B65H 63/00** (2006.01); **B65H 63/08** (2006.01)

CPC (source: EP US)

**B65H 54/38** (2013.01 - EP US); **B65H 63/00** (2013.01 - EP US); **B65H 2515/12** (2013.01 - EP US); **B65H 2557/24** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by

EP1110896A3; CN111683888A; EP2238062B1

Designated contracting state (EPC)

CH DE FR IT LI

DOCDB simple family (publication)

**DE 19625511 A1 19980102**; CN 1170691 A 19980121; DE 59701349 D1 20000504; EP 0816277 A2 19980107; EP 0816277 A3 19980826; EP 0816277 B1 20000329; JP H1072168 A 19980317; TR 199700526 A2 19980121; TR 199700526 A3 19980121; US 6302349 B1 20011016

DOCDB simple family (application)

**DE 19625511 A 19960626**; CN 97113861 A 19970626; DE 59701349 T 19970603; EP 97108839 A 19970603; JP 17008997 A 19970626; TR 9700526 A 19970620; US 88383397 A 19970626