

Title (en)

METHOD AND DEVICE FOR CONTINUOUS MEASUREMENT OF COHESIVE FORCES IN ROVING OR A SIMILAR FIBER BUNDLE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KONTINUIERLICHEN MESSUNG VON KOHÄSIONSKRÄFTEN BEI EINEM VORGARN IN ODER EINEM ÄHNLICHEN FASERBÜNDEL

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR LA MESURE CONTINUE DE FORCES DE COHÉSION DANS UN STRATIFIL OU UN FAISCEAU DE FIBRES SIMILAIRE

Publication

EP 3262220 A1 20180103 (EN)

Application

EP 16713282 A 20160212

Priority

- CZ 20150096 A 20150213
- CZ 2016000018 W 20160212

Abstract (en)

[origin: WO2016127964A1] The invention relates to a method for the continuous measurement of the cohesive forces between the fibers of roving (3) or a similar fiber bundle, in which in the drafting zone (4) running roving (3) is acted upon by constant draft, as a result of which axial resistive force is induced in the roving (3) in the area of drafting against this drafting, whereby in the area of the action of the axial resistive force the trajectory of roving (3) is deflected from a straight-line path by a contact member (41) of a force sensor (42), upon which the roving (3) acts by the transverse force, which is measured. Deflection of the trajectory of the roving (3) from a straight-line path is performed within the drafting zone (4) at the shortest possible distance for the rollers (11,12) of the feeding device (1) and the length (L) of the drafting zone (4) is selected slightly greater than the length of the longest fiber in the roving (3), whereby the axial resistive force during constant drafting is determined from the size of the transverse force measured by the force sensor (42) by means of a suitable calibration of the force sensor (42) and changes in this axial resistive force are determined from the changes in the size of the transverse force during constant drafting, the axial resistive force corresponding to the cohesive force between the fibers of the roving (3). The invention also relates to a device for the continuous measurement of the cohesive forces of roving.

IPC 8 full level

D01H 5/38 (2006.01); **B65H 59/40** (2006.01); **G01L 5/08** (2006.01)

CPC (source: CN EP)

B65H 59/40 (2013.01 - EP); **D01H 5/38** (2013.01 - CN EP); **D01H 13/32** (2013.01 - CN); **G01L 5/108** (2013.01 - EP); **B65H 2701/31** (2013.01 - EP)

Citation (search report)

See references of WO 2016127964A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2016127964 A1 20160818; CN 107407013 A 20171128; CN 107407013 B 20191203; CZ 201596 A3 20161123; CZ 306305 B6 20161123; EP 3262220 A1 20180103

DOCDB simple family (application)

CZ 2016000018 W 20160212; CN 201680010018 A 20160212; CZ 20150096 A 20150213; EP 16713282 A 20160212