

Title (en)
A DEVICE FOR AUTOMATICALLY ADJUSTING WIRE TENSION DURING THE VARIOUS STEPS OF WINDING IN MACHINES FOR WINDING ELECTRICAL COILS

Title (de)
VORRICHTUNG FÜR AUTOMATISCHE DRAHTSPANNUNGSANPASSUNGEN WÄHREND VERSCHIEDENER STUFEN VON WICKELMASCHINEN ZUM WICKELN VON ELEKTRISCHEN SPULEN

Title (fr)
DISPOSITIF DE RÉGLAGE AUTOMATIQUE DE LA TENSION DE FILS PENDANT LES DIFFÉRENTES ÉTAPES D'ENROULEMENT DANS DES MACHINES PERMETTANT D'ENROULER DES BOBINES ÉLECTRIQUES

Publication
EP 3336864 B1 20200826 (EN)

Application
EP 17206731 A 20171212

Priority
IT 201600127236 A 20161216

Abstract (en)
[origin: EP3336864A1] A device for automatically adjusting wire tension during the various steps of winding in machines for winding electrical coils, comprising a supporting structure (2) which supports a series of elements that define a path for the wire (3) to be fed to the coil being wound. Along this path there are: - an element (4) for pushing and braking the wire (3); - a takeup arm (5) which is supported so that it can rotate by the supporting structure (2) about an axis (6) and which can rotate about the axis (6), with respect to the supporting structure (2), owing to variations in the tension of the wire (3); - means of detecting the tension (7) of the wire (3); the device in question further comprising means of detecting the angular position (8) of the takeup arm (5) about the axis (6) with respect to the supporting structure (2), such means of detecting the angular position (8) of the takeup arm (5) are functionally connected to the pushing and braking element (4) for an automatic adjustment of the degree of thrust or braking applied to the wire (3) as a function of the detected value of the rotation of the takeup arm (5) about the axis (6); the device comprises an actuator (9) which is connected to the takeup arm (5) and which is adapted to vary the angular position of the takeup arm (5) about the axis (6), the actuator (9) is functionally connected to the means of detecting the tension (7) of the wire (3) in order to vary the angular position of the takeup arm (5) as a function of the tension of the wire (3) detected by the means of detecting the tension (7) of the wire (3).

IPC 8 full level
H01F 41/094 (2016.01); **B65H 59/38** (2006.01)

CPC (source: EP)
B65H 59/18 (2013.01); **B65H 59/36** (2013.01); **B65H 59/388** (2013.01); **H01F 41/094** (2016.01); **B65H 2701/36** (2013.01)

Cited by
CN110723595A; CN116013681A; EP3651324A1; IT201800010099A1

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 3336864 A1 20180620; **EP 3336864 B1 20200826**; IT 201600127236 A1 20180616

DOCDB simple family (application)
EP 17206731 A 20171212; IT 201600127236 A 20161216