

Title (en)
METHOD FOR CONTROLLING THE WINDING TENSION

Title (de)
VERFAHREN ZUR REGELUNG DER WICKELSPANNUNG

Title (fr)
PROCÉDÉ DE COMMANDE DE LA TENSION D'ENROULEMENT

Publication
EP 4310043 A1 20240124 (EN)

Application
EP 23182007 A 20230628

Priority
IT 202200015126 A 20220719

Abstract (en)
A method for controlling the winding tension of a yarn (12) in a winding unit (14) comprises a tension sensor (16), a thread tensioner (18), and an unravelling tension control device (20). The unravelling tension control device (20) comprises a first containment element (22) operable on command, and a second containment element (24) fixed and arranged downstream of the first containment element (22) along the winding direction of the yarn (12). The method comprises the following steps: (a) start of the winding step with winding speed equal to v_{max} ; (b) upon reaching a predetermined tension value measured by the tension sensor (16), the winding speed is brought to a predetermined percentage of v_{max} ; (c) upon reaching said predetermined percentage of v_{max} , from here on the unravelling tension is controlled by the thread tensioner (18); and (d) upon reaching a predetermined operating parameter of the winding, operating the first containment element (22) of the unravelling tension control device (20).

IPC 8 full level
B65H 57/22 (2006.01); **B65H 59/10** (2006.01); **B65H 59/38** (2006.01)

CPC (source: CN EP)
B65H 54/28 (2013.01 - CN); **B65H 54/70** (2013.01 - CN); **B65H 57/22** (2013.01 - EP); **B65H 59/06** (2013.01 - CN); **B65H 59/10** (2013.01 - EP); **B65H 59/385** (2013.01 - EP); **B65H 59/40** (2013.01 - CN); **B65H 2701/31** (2013.01 - CN EP)

Citation (applicant)
EP 3950551 A1 20220209 - SAVIO MACCH TESSILI SPA [IT]

Citation (search report)
• [A] CN 108069290 A 20180525 - SAURER GERMANY GMBH & CO KG
• [A] US 5377923 A 19950103 - MATSUI ISAMU [JP], et al
• [A] EP 3950551 A1 20220209 - SAVIO MACCH TESSILI SPA [IT]

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4310043 A1 20240124; CN 117416811 A 20240119; IT 202200015126 A1 20240119

DOCDB simple family (application)
EP 23182007 A 20230628; CN 202310884932 A 20230718; IT 202200015126 A 20220719