

Title (en)

Positive yarn feeder with control of the feeding tension

Title (de)

Positive Fadenzufuhrvorrichtung mit Steuerung der Zufuhrspannung

Title (fr)

Dispositif d'alimentation positive de fil avec commande de la tension d'alimentation

Publication

EP 2868608 A1 20150506 (EN)

Application

EP 14002706 A 20140802

Priority

IT TO20130875 A 20131029

Abstract (en)

A yarn feeder comprises a housing (12) and a yarn-winding wheel (16), which is driven to rotate by motor means for feeding a yarn (Y) wound on it to a textile machine (M). A brake (18) applies a slight, static braking action upon the yarn (Y) upstream of the yarn-winding wheel (16). A control unit (CU) modulates the speed of rotation of the yarn-winding wheel (16) on the basis of a tension signal received from a tension sensor (26) engaged by the yarn (Y) downstream of the yarn-winding wheel (16), in order to maintain the yarn tension substantially constant on a desired level. The yarn (Y) is wound, in the form of a single loop, in a circumferential groove (32) of the yarn-winding wheel (16) which has a substantially V-shaped profile defined between two counterposed annular toothings (38, 40) in an alternated configuration. A deviating arm (42) has yarn-guiding means (44) which are slidably engaged by the yarn (Y) between the brake (18) and the tension sensor (26) in a position such that the yarn input to the yarn-winding wheel (16) is prevented from contacting the yarn delivered from the same.

IPC 8 full level

B65H 59/18 (2006.01); **B65H 59/38** (2006.01); **D04B 15/50** (2006.01)

CPC (source: EP)

B65H 59/18 (2013.01); **B65H 59/388** (2013.01); **D04B 15/50** (2013.01); **B65H 2701/319** (2013.01)

Citation (applicant)

EP 2218670 A1 20100818 - LGL ELECTRONICS SPA [IT]

Citation (search report)

- [A] US 2007210198 A1 20070913 - HUSS ROLF [DE]
- [A] US 2714494 A 19550802 - WENTZ EDWARD A
- [A] GB 2078792 A 19820113 - THEAKER REGINALD, et al
- [A] WO 03085183 A1 20031016 - BAREA TIZIANO [IT]
- [A] US 3772869 A 19731120 - MUTSCHLER G, et al
- [A] US 6131842 A 20001017 - SCHMODDE HERMANN [DE]

Cited by

CN111699144A; WO2019155346A1; TWI780300B

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

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BA ME

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