

Title (en)

Flat knitting machine and knitting method using flat knitting machine

Title (de)

Flachstrickmaschine und Strickverfahren unter Verwendung der Flachstrickmaschine

Title (fr)

Machine à tricoter plate et procédé de tricotage utilisant une telle machine

Publication

EP 2775020 A1 20140910 (EN)

Application

EP 14020020 A 20140227

Priority

JP 2013043397 A 20130305

Abstract (en)

Configuration: A flat knitting machine (2) includes at least two needle beds (4), a carriage (6) that reciprocates on the needle beds (4) and has a stitch cam motor that changes a stitch density value of a stitch cam, a carrier (8, 9) that feeds a yarn to needles of the needle beds, a yarn feeding apparatus (10) that feeds the yarn to the carrier, a sensor (27) that measures a yarn length of the yarn fed from the yarn feeding apparatus (10), and a controller (16) that controls the stitch cam motor based on a signal of the sensor (27) and corrects the stitch density value. The controller (16) corrects the stitch density value for each predetermined length that is shorter than one course in order to correct an error between a consumed yarn length and a target yarn length in a course of the carriage in which the error occurred. Effects: An accumulated error in the stitch loop length is corrected for each course and is not carried over to the next course. Also, when yarns are connected and changed in the course, or the dyeing color of the yarn is changed, the color is changed exactly at a desired position and there is no need for treating the yarn for a margin with tuck stitches or the like.

IPC 8 full level

D04B 15/66 (2006.01); **D04B 15/36** (2006.01); **D04B 15/48** (2006.01)

CPC (source: EP)

D04B 15/327 (2013.01); **D04B 15/488** (2013.01); **D04B 15/66** (2013.01); **D04B 15/96** (2013.01)

Citation (applicant)

- JP 2952391 B2 19990927
- JP 3603031 B2 20041215
- JP 4016030 B2 20071205
- JP 2816784 B2 19981027
- JP 4366312 B2 20091118

Citation (search report)

- [A] EP 2280104 A1 20110202 - SHIMA SEIKI MFG [JP]
- [AD] EP 0506322 A1 19920930 - SHIMA SEIKI MFG [JP]
- [A] GB 2133050 A 19840718 - SCHIEBER UNIVERSAL MASCHF

Cited by

CN113337955A

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)

EP 2775020 A1 20140910; **EP 2775020 B1 20160406**; CN 104032472 A 20140910; CN 104032472 B 20160413; JP 2014169518 A 20140918; JP 6108882 B2 20170405; KR 101569011 B1 20151113; KR 20140109290 A 20140915

DOCDB simple family (application)

EP 14020020 A 20140227; CN 201410078607 A 20140305; JP 2013043397 A 20130305; KR 20140023785 A 20140228