

Title (en)
Knit design method and knit design apparatus

Title (de)
Strickdesignverfahren und Strickdesignvorrichtung

Title (fr)
Conception de tricot et appareil de conception de tricot

Publication
EP 2759625 A2 20140730 (EN)

Application
EP 14020003 A 20140113

Priority
JP 2013010943 A 20130124

Abstract (en)
Configuration: A knitted fabric having a plurality of triangular parts is designed so that the knitted fabric is knittable on a flat knitting machine. An external shape (30, 50) of a knitted fabric is input, the position of a center (C) at which apexes of respective parts into which the knitted fabric is divided gather is input, and the number of parts is determined. The knitted fabric is divided into a plurality of parts, each part having the shape of a triangle, the center (C) being the apex of the triangle, a peripheral edge of the knitted fabric being the base of the triangle, and lines connecting both ends of the base to the center (C) being the two sides of the triangle. Assuming that the peripheral edge of the knitted fabric is set in the course direction of knitting, whether the number of stitches corresponding to the length (d) of the base of each part can be decreased during knitting of the number of rows corresponding to the height (h) of that part while satisfying a condition of decrease is evaluated. If it is evaluated that the decrease is not possible, the number of parts is increased, or the base of the part is shortened. Then, flechage lines (60) are produced so as to be parallel to the course direction so that the difference in the number of rows between the two sides of each part due to a difference between lengths of the two sides is compensated for by flechage knitting that turns back in that part, and decrease courses are produced so that the same number of stitches as the number of stitches of the base are decreased. Effects: A knitted fabric that is knittable can be substantially automatically designed even in the cases of a knitted fabric having a complicated external shape and a knitted fabric whose center (C) is shifted from the center of its external shape.

IPC 8 full level
D04B 1/10 (2006.01); **D04B 1/24** (2006.01)

CPC (source: EP KR)
D04B 1/08 (2013.01 - EP); **D04B 1/22** (2013.01 - KR); **D04B 1/24** (2013.01 - EP); **D04B 1/243** (2013.01 - EP); **D04B 1/246** (2013.01 - EP);
D04B 7/30 (2013.01 - KR); **D10B 2403/0332** (2013.01 - EP); **D10B 2403/0333** (2013.01 - EP); **D10B 2501/042** (2013.01 - EP)

Citation (applicant)
WO 2009022535 A1 20090219 - SHIMA SEIKI MFG [JP], et al

Cited by
WO2024094577A1; EP330211A4; EP4365344A1; US10640896B2; US11877605B2

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 2759625 A2 20140730; **EP 2759625 A3 20150506**; CN 103966752 A 20140806; CN 103966752 B 20160224; JP 2014141758 A 20140807;
JP 6084047 B2 20170222; KR 101496656 B1 20150227; KR 20140095423 A 20140801

DOCDB simple family (application)
EP 14020003 A 20140113; CN 201410017986 A 20140116; JP 2013010943 A 20130124; KR 20130158863 A 20131219