Title (en)

Device for designing knitwear made on a knitting machine

Title (de)

Einrichtung zum Entwurf von auf einer Strick- oder Wirkmaschine hergestellten Maschenerzeugnissen

Title (fr)

Dispositif de conception d'articles à mailles produits dans des machines à tricoter

Publication

EP 1020554 B1 20040721 (DE)

Application

EP 00100529 A 20000112

Priority

DE 19901542 A 19990116

Abstract (en)

[origin: EP1020554A2] The apparatus has at least one memory to store the data for the knitting at the knitter, a display to show the design images of the knitting and at least one input to alter the images. The design images show at least one display for the stitches and a display to show the yarn movements which can be altered through the input unit. The apparatus to design a knitted product, produced on a knitter, has at least one memory (10) to store the data for the knitting at the knitter. It has at least one display to show the design images of the knitting and at least one input to alter the images. The design images show at least one display for the stitches (11) and a display to show the yarn movements (12) which can be altered through the input unit. When the image is altered at one display (11,12), the other display (12,11) is adjusted simultaneously to meet the changes. The two displays (11,12) are shown together and at the same time on a screen. A number of sections of one display (11) and/or the other display (12) are shown together and at the same time on at least one screen. The front and back sides of the knitting design of one display (11) and/or the other display are shown together and at the same time on at least one screen. The stitch display (11) gives a virtual reality presentation in three dimensions of all the elements of the stitching such as the stitches, the catch, and floats. The input unit allows changes to be made at each needle position to change the type, size and shape of the stitches in the display, and be related to the nature of the knitting yarn. The yarn movement display (12) has symbols for all the movements of the yarn at the needles, and the needle actions, such as in or out of use, stitch transfer and take-up, casting off and the like, together with the knitter operating parameters such as for the yarn guides and the slide movements, fabric take-off, needle bed racking, etc. The symbols for the yarn movement display (12), with the needle actions, can be combined into modules. The stitches in the stitch display (11) can also be combined into modules. The modules are stored in memory (10). The modules are taken from memory to be used as the knitting design, with a system which monitors that modules can only be used together in a structure which can be knitted at a knitting machine. The modules are brought together in their displays (11,12) to show the knitted fabric and the knitting execution, with defined threshold modules between the stitch and needle deployment displays for the fabric being designed. An overlay brings together several knitted rows of one display (11) and/or the other display (12) into a knitted row, giving a graphic correction on at least one display screen, together with a presentation of module repetitions and/or mirror images of the modules. The presentation of the modules can be enlarged on the display screen. The memory (10) has stored data for known Jacquard pattern structures to be shown as stitches and also the needle and yarn movement actions required. A generator provides the data to show the front and reverse sides of the Jacquard fabric patterning, and the input unit gives the user an interactive facility to convert the Jacquard pattern data into control data for the knitter. The memory (10) also holds data for most frequently used conversion algorithms between pattern and control data sets. The same memory (10) is used for data relating to the knitted stitches and the data for the needle actions and yarn movements to form the stitches.

IPC 1-7

D04B 37/00

IPC 8 full level

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CPC (source: EP US)

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Cited by

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