



## INFORMATION ON MODERN LOOMS COMMUNICATION TECHNOLOGIES

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### Annotation

The application of information and communication technologies to weaving technologies, especially in the artistic decoration of fabrics, increase labor and machine productivity in the production of large knitted fabrics

**Keywords:** rope, sensor, sprayer, SuperZksel, car controller (APC), bench, shuttle, jacquard, carriage, pneumatic .

Chain modern communication information technologies have automated the process of controlling, adjusting, calculating, analyzing and monitoring technological processes on the loom. This will be the basis for the creation of not only individual looms, but also a set of looms, technological processes and automated control systems for weaving enterprises.

Personal computers installed on modern sewing machines collect, summarize, display, or print information about the technological process. It shows how much fabric was produced, how many loops and ropes were broken, why the looms were idle, and how much was left idle. All indicators are compared to the plan. Information can be obtained at the end of the shift or at other times (as required). They can be provided for the whole enterprise, shop, set of equipment or for individual workplaces. Equipping with jacquard machines has increased the type of fabric while increasing machine and labor productivity. The automatic control of the training looms is organized taking into account their specificity.

- Pneumatic system adjustment control which works on the basis of the analysis of the displayed histograms;
- The controller of information sender controls the movement of the rope by means of diagrams on an additional display to the rope adjustment controller;
- Automatic fault detector - detects obstructions in the movement of the rope, detects defects in the thread, or stops the machine;



- Autocontroller(APC) - automatically adjusts the movement of the rope by automatically adjusting the air pressure in the sprayer;

- Autocontroller (main APC) in addition to the standard APC, which adjusts the air pressure in the entire pneumatic circuit as the diameter of the coil windings in the coil changes. The following steps are taken to automatically eliminate the defects in the fabric associated with the rope, the twin system "ARO" installed on the machine "Toyoda":

- The ropes are pulled out of the defective part of the fabric and the machine is restarted;

- The measuring roller measures the length of the defective rope and removes it all;

It is known that the matorostrach pulls the tissue from the zone of formation and ensures the density of the tissue along the required rope. In an electronic motor, the speed of movement of the electric motor is achieved. To do this, the value of the required density of tissue on the rope is entered into the microprocessor of a personal computer installed on the machine. The combination of these two parameters is controlled by an electronic motor and an electronic tannery. the desired values are entered and controlled. This work is performed in the following order:

- a special button is pressed, the program of transfer and tissue drawing is called, 1 menu page appears on the computer screen;

- Press the button A on the input switches and enter the "tension" of the threads in the program, press the button E and enter the "pulling". It takes a lot of time and effort to set up a new mowing program on a mechanically operated hammer-making machine installed on the old technology. In the newly developed electronic carriage carriage and jacquard machine, computer systems perform these tasks quickly and with less labor.

Modern looms use programmed colored rope throwing systems. For example, on the "Something" device, this program performs "Socos", ie So - comet, CO - computer, S-system device. On this machine, with the help of the computer system "Socos", an electronic color mechanism can throw the rope in eight different colors. With this device, all yarns of different colors are programmed on the loom in the following order:

1. Pressing the Color Report Selection Program button displays menu page 1 on the computer screen.



2. If you press the "B" key on the input keys, a new report name will appear on the screen. Then pressing the YES button displays the next second page on the screen, in which Col is the color of the rope, Col is the color Col 1 and Col 2, two colors, etc. Examples: 0001 Col [EN] In this case the bench will be programmed to cast a single color rope.

Col 1

Col 2

Col 3

Col 4

[END]

According to this program, 5 different colored ropes are thrown on the machine to produce a pattern with a color report of 5. Cyclic programs are created to produce a fabric with a large color report and a different number of colored threads in the report. The application of information and communication technologies to weaving technologies, especially in the artistic decoration of fabrics, provides an increase in labor and machine productivity in the production of large textiles.

The Riomo Systems complex of advanced automated systems is widely used in the preparation of large patterned fabrics for artistic decoration and in the design of new compositions on modern non-seamless looms installed on electronic Jacquard machines. This complex includes the following systems:

- Pattern copying (scanning) - transfer of the program to the design system - "PHOTOSHOP" system;
- The main system "Diblook", which includes the main parameters of the fabric (density on the body and rope, the number of colored threads, pattern report, etc.);
- Pattern processing and correction system "CODWIN";
- Selection of entries, creation of new entries, creation of "Deccent" language, ie "Josiki" performing coding;
- Parain system, which fills the table with the values of the large patterned fabric and the Jacquard machine;
- ImagPen, which prints texture patterns on a printer;



- Jtenwin, Card Ediror - Cgs-dos systems that convert the pattern program dbtp to cgs;
- Development of a test sample of a large patterned fabric, copying it to a floppy disk

**References:**

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- 2) Training manual on professional skills and engineering
- 3) Websites: moodle.karsu.uz
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