THE ROLE AND IMPORTANCE OF ADDITIONAL DEVICES OF SEWING MACHINES IN THE LIGHT INDUSTRY

Saidova Gulchiroy Shokirovna
Doctoral student of Bukhara institute of engineering technologies

Enterprises of "Uzbekyengilsanoat" JSC has produced industrial products worth more than 30 trillion soums and consumer goods worth more than 13 trillion soums. Along with cotton yarn and cloth, textile fabrics, sewing and hosiery, yarn and ready-made clothes, the enterprises also produce medical products and special clothing.

In the first 9 months of this year, the volume of industrial production at "Uzbekyengilsanoat" JSC increased by 18.5%, consumer goods - by 23%.

Nowadays, the society includes more than 380 enterprises engaged in the production of textiles, sewing and knitwear, as well as silk products, equipped with modern equipment. About 360 of them are small businesses and private entrepreneurs.

These enterprises supply a wide range of products to the domestic and foreign markets, from yarn to finished products. Modern design and high-quality manufactured products ensure competitiveness and allow them to take a worthy place in the international market.

Because of that, in such a modern design and in the production of high quality and more competitive products in less time, the tasks set before us are:

- High quality production equipment;
- Additional devices that can independently perform some of the components specified in the design;
- Reducing the number of man-made tasks and increasing automation during the work, etc.

Additional mechanisms are divided into mechanized and automated groups. Mechanized mechanisms and devices include:

- material guides;
- measuring and roller thrust mechanisms;
- Mechanisms for transmitting tapes under the needle;
- embossing, limiting devices;
- Mechanisms for cutting fabric edges;
- sharpening mechanisms;
- needle cooling device, etc.

These mechanisms have different designs and working principles depending on the functions and technological requirements of sewing machines.

The group of automated mechanisms and devices includes followings:

- automatic stop device;
- automatic stop in the desired position of the needle;
- cutting yarn and mesh materials with a vertical knife;
- cutting the bottom thread;
- automatic response lift;
- provide information on the lubrication process and thread breakage;
- automatic unpacking of fabric from packaging;
- product counter, etc.

A machine made of special and automatic elements is called a specialized and automated sewing machine

The sewing industry is increasingly using yarn shears, layered sewing machines, stencils that help the weaver to follow the given contours, and so on. Devices for transferring sewing parts to the bottom of the needle are being improved. Methods have been developed to allow the processing of details in the form of broken lines with the help of tools. Many devices have portable elements, some with independent drive.

Table 1 lists several types of devices that can be mounted on parallel shuttle sewing machines manufactured by “Durkopp-Adler” and “Pfaff” factories. These devices are mainly used for folding and sewing materials. Devices such as rulers and punches are widely used in the garment industry.

The double-ended sliding lines are designed to be sewn parallel to the material cuts or sewn with two parallel seams on the board, collar, cuffs and belts.

The fixed line is fastened to the machine platform with screws and attached to the opening line.

The double-rise guide liner is used for stitching outerwear and lightweight garments made of dense materials.

This device is fastened to the kick bar by means of a screw above the push kick. Two guide lines are installed in the recesses on the side surfaces of the device.

After each stitching, the guide lines can be used alternately, depending on which direction the sewn material is pushed.

Knitting stitches are used to decorate women's and girls' items. When doing this, the cord should not be attached to the material. The ti-twist bends the material by hand and directs the cord into the resulting gap.

Knitting or ribbon stitching is used to sew a needle on the edge of the board in outerwear, as well as to sew decorative ribbons on women's, children's shirts and other items.

Folding kits are designed for sewing underwear, men's, boys' shirts and special clothes with inner stitching when folding and stitching.

To sew the cuts with an internal seam, the details are folded so that the cut of the lower part protrudes from the cut of the upper part by the width of the seam equal to the width of the workpiece. Such folded materials are inserted into the folding step, where the bent section of the lower part must pass through the left end of the fold and enter the bottom of the fold.

When sewing the seam, the sewn detail is recorded, and the seam is bent to the left and the folder is placed on the seam allowance. When sewing underwear, the seam allowance is 0.5-0.6 cm, and when sewing special clothes, the seam width is 0.6. Used when -0.8 cm.

Twist making levers are used to decorate women's and girls' dresses. The kever is trimmed and has a horizontal cut on the left side of the short trim

There is also a punching device that sews the fabric to form a fold. It is widely used in curtains in addition to decorating women's and girls' shirts. It has the convenience of changing the size of the folding fold and or reducing it.

It is attached directly to the needle with a clamp and in some way controls the movement of the needle.

The folding device is attached to the machine platform. Its shell-shaped folder is mounted on the kick so that the folded sheet of fabric passes 1-1.5 mm to the left of the center of the needle. When using the folding equipment, the fabric cut is inserted into the fold of the folder and directed to the bottom of the needle.

Our scientific research shows that the exact sewing machine can only sew in a certain form, that is, in almost the same design. We believe that the design of this equipment needs to be improved in order to make it more unique in terms of design, and we are conducting experimental tests for this work.

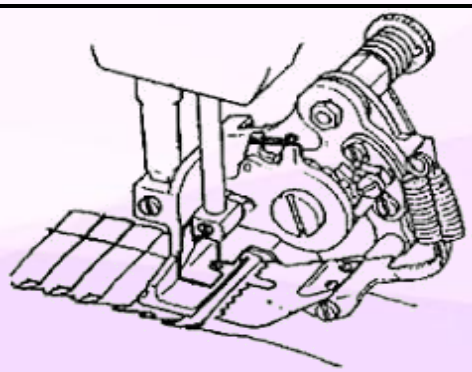

Figure. 2. General appearance of the equipment

Considering the simple devices used in sewing machines, it can be concluded that the development and implementation of devices takes much less time than the production of special sewing machines. In addition, the ability to turn the devices on or off allows you to use a simple sewing machine as a special machine.

Sewing machines allow to increase labor productivity, improve the quality of workmanship. Modern sewing machines are equipped with devices that help to reduce the cost of sewing, reduce the time of training of seamstresses.

According to research institutes, if most technological processes in such enterprises are equipped with the appropriate equipment, labor productivity will increase by 20-30%.

References

1. Q.Olimov “Yengil sanoat texnologik jihozlari[Light industrial technological equipment]” recommended as a study guide. Toshkent “Fan va texnologiyalar”- 2008
2. Q.T.Olimov “Tikuvchilik korxonalari jihozlari[Equipment of sewing enterprises]” handbook DITAF. 2001-y.
3. A.I.Komissarov i dr. Proektirovanie i raschot mashin obuvnых i shveynых proizvodstv[Design and calculation of machines for shoe and sewing industries]. – M.: «Mashinostroenie», 1978.
4. www.ziyouz.com
5. www.neconomy.uz