EXPERIMENTAL RESULTS ON INCREASING THE EFFICIENCY OF CLEANING COTTON FROM LARGE POLLUTIONS

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Abstract
The article presents methods of improvement and experimental results to increase the efficiency of the machine for cleaning cotton from large impurities. It is based on the distance between the drum and the saw drum.

Key words: cleaner, saw drum, kolosnik, kojuh, cleaning effect, grill, large dirt.

Annotasiya:
Maqolada paxtani yirik iflosliklardan tozalash mashinasining samaradorligini oshirish uchun takomillashtirish yo'llari va tajriba natijalari keltirilgan. Bunda tituvchi qoziqli baraban kojuxi bilan arrali barabanning ildiruvchi moslamasining oraliq masofalari asoslangan.

Tayanch so'zlar: tozalagich, arrali baraban, kolosnik, kojux, tozalash samarasi, panjara, yirik ifloslik.

Аннотация;
Встатье есть машина для очистки хлопка от крупных примесей способы совершенствования и опыт повышения эффективности представлены результаты. В данном случае имеется пила с барабаном с колом-молотком исходя из промежуточных расстояний подъемного устройства барабана.

Ключевые слова: очиститель, пильный барабан, колосник, кожух, очищающее действие, решетка, крупная грязь.

Initial processing of cotton in the cotton industry in our country technology and requirements for the quality of the manufactured fiber has changed significantly. Annual investment of the Republic of Uzbekistan modernization of cotton ginning enterprises within the programs and reconstruction, development of resource-efficient techniques and technologies Comprehensive measures have been implemented and certain results have been achievedis being achieved. In this regard, the Republic of Uzbekistan in 2017-2021 in the Strategy of Actions on development, including "...national increasing the competitiveness of the economy, energy in the economy and reduce the consumption of resources, save energy for production such tasks as "wide introduction of technologies" have been defined. This quality in the implementation of

tasks, including cotton processing along with cleaning, in order to speed up the cleaning processthe creation of modernized machines is gaining importance.

As a result of scientific research, cotton is free from impurities for cleaning, a flow cleaning unit [6] was created, its working partsimproving [4, 5, 7] performance and quality indicatorsseveral technical solutions have been proposed in order to increase.

But in the following years, cotton was picked by machine in our Republic The issue of cotton hand labor has become one of the urgent problems again reduction of picking and mechanization of picking operations great attention is being paid to accelerating their work. Typed by machinethe amount of major impurities in cotton compared to total impurities. If we take into account the increase of up to 30-40% [2], the current cotton quality in cleaning at the level of standard requirements from large impurities ensuring its indicators is one of the actual problems of the present day remains.

Based on the above, "Cotton Industry Scientific Center" JSC to clean the cotton raw material picked by the machine from large impuritiesmachine PT-10 was developed [1, 8]. During the operation of this cleaner, the following defects occur came Potential high cleaning effect of the cleaner when using it does not provide, it mainly depends on the number of cleaning column grids. As a result, on the surface of the first saw cylinder installed in the cleaning section only three columnar bars to the recommended spacing between them is placed, which does not provide the necessary efficiency of cotton cleaning, because it contains the main part of the cotton, that is, the cotton given to cleaning 80-85% is cleaned. So, first, the main part of the cotton (80%) clearance due to the increase of the distance between the columns to 70 mmin the first cleaning cylinder with a reduced number of colosnik bars is cleaned. Second, cleaning colosnik grills in normal amount in the installed second cleaning cylinder (the distances between the columns are 50 mm) only 15% of the total weight of cotton to be cleaned is cleaned. The purpose of the proposed scientific solution is a large cotton cleaneris to increase the efficiency of cleaning from dirt [3; 10].

The essence of the technical solution is cotton, which is proposed in Figure 1 the scheme of the cleaner is explained through the schematic diagram shown. A machine-picked cotton gin (Fig. 1) has two suppliers the roller 1 and drum 2 with a hammer pile, consisting of a coax and a guide supply department, soaking columns 6, 12 and 15, cleaner saw cylinders 5, 11, 14 and remover with columns 7, 13 and 16 cleaning and regeneration consisting of slatted drums 8.17 includes sections.

Guide trays 10 and 18 are inclined to saw cylinders 5, 11 and 14 is located. Plank drums are between the upper and lower ends of 8 and 17 the cleaned cotton discharge throat 9 is formed.
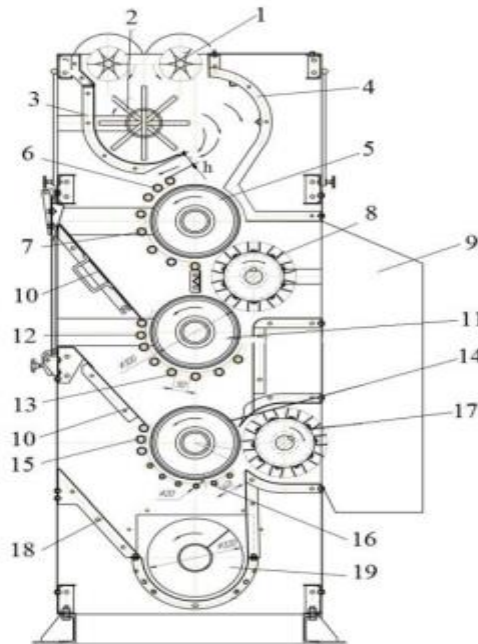
Figure 1. Cleaning according to the proposed technical solution general scheme of the machine.

The cotton cleaner works as follows. Cotton raw material from the shaft (not shown in the picture) using the supply rollers 1 counter-rotating pile drum 2 is transferred to the cotton along the guide 4 by pushing the drum along the curve of the cojux 3

moves, and then drops to the saw cylinder 5 in the cleaning section gives. Cotton raw materials, for example, 55-60% saws with teeth of 5 are caught, fixed to them with the help of grills with colosniks 6 and from dirty impurities when it collides with the cleaning colosnik grills 7cleaned, then the drum that removes the teeth of the saws

Taken by 8, the front of the cleaner opposite the cleaning drum it is removed from the cleaner through the outlet 9 located on the wall. Cotton raw materials, for example, 40-45% cojux 3 and binder cleaning, passing the distance h formed between the columnar grid 6 dirt passed through the gaps between the colosnik bars 7 together with the mixtures, falling along the tray 10, the second cleaning saw cylinder with 11 teeth and a colosnik grill.Set using 12, cleaning them with grates 13 it is cleansed of impurities by exposure, free impurities and the mixtures are under the influence of centrifugal forces from the saw cylinder 11 separated and through the gaps between the cleaning grids 13the regeneration saw is lowered onto the cylinder 14. The saw cylinder 11 has a plate that removes the cleaned cotton pieces The back of the teeth of the saw cylinder 5 is separated using the drum 8carried along the side and cleaned together with cotton removed from itremoved from the car.

Regeneration saw cylinder 14 with dirty impurities pieces of cotton are caught by the teeth of saws and glued to them.Colosnik grid is installed through 15 and cleaning colosnik grids.

When exposed to 16, it is cleaned of impurities, then cleaning from the teeth of the saws using a drum with a removing plate 17 Removed from the machine and along the tray 18 dirt mixtures auger 19 and removed from the cleaning machine In the experiments, with the car's vibrating pile drum kojuhi between the first saw drum dampening column device distance h is 40; 60; Cleaning cotton in 80 and 100 mm versions that raw materials are divided into first and second cleaning saw drums

To analyze and learn, follow the four nodes (Fig. 1, node 3)mounted on the second lower saw drum of the cleaner approx. It has been studied that no more than 40-50% of cotton is discarded.

Offer cottons that fall into the first and second saw drums it is possible to determine directly in the cleaner of the proposed construction due to the absence of the first and second saws in the process of technological work the amount of cotton to be cleaned and removed from the drums determination was deemed acceptable.

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