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PAXTA CHIQINDILARI TARKIBIDAGI YIGIRUVGA YAROQLI TOLALARNI AJRATISH QURILMASINI ISHCHI SXEMASINI YARATISH VA UNI SAMARALI ISHLASHINI ASOSLASH

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ANOTATTSIYA

Ma’lumki, maqolada paxta chiqindilarini tarkibidagi yigiruvga yaroqli tolalar qushilib ketishini bilamiz, shu bois taklif etilayotgan qurilmada paxta chiqindilari yigiruvga yaroqli tolalari ajratish keltirilgan. Qurilma ignali baraban va pichoqlar yordamida ajratilgan asosan boshqa qurilmalardan farqi bitti baraban bilan amalga oshirilgan. Maqolada pichoqlar va ignali baraban bilan orasidagi masofalar keltirilgan hamda optimali olingan va har bir o’tkazilgan tajribalarni jadvallar yordamida keltirilgan.

Kalit so’zlar: Tola, chiqindi, shyotka, barban, igna, ulyuk, cho’tkali baraban, pichoq, arrali lenta, patrubka, shnek.

TO CREATE A WORKING SCHEME OF A FIBER SEPARATION DEVICE SUITABLE FOR SPINNING IN THE COMPOSITION OF COTTON WASTE AND JUSTIFICATION OF ITS EFFECTIVE PERFORMANCE

ABSTRACT

it is known that in the article we know that the composition of cotton waste is connected to fibers suitable for spinning, so the proposed device offers the separation of fibers suitable for spinning in cotton waste. The device is separated by needle drums and blades, basically the difference from other devices is that one is fastened with a drum. The article lists the distances between the blades and the needle drum and presents the optimal obtained and conducted experiments with each using tables.

Keywords: fiber, waste, slate, barbell, Needle, Thread, brush drum, knife, saw tape, cartridge, cord.

KIRISH

To’qimachilik korxonasining qimmatbaho xomashyosi bo’lgan paxta tolasining o’rtacha 3-4 foizi tolali chiqindilar tarkibiga qo’shilib ketadi. Bu avvalo qimmatbaho tolaning yo’qolishiga, ikkinchi tomondan sifatining buzilishiga olib keladi. Taklif

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qilinayotgan qurilmani joriy qilish orqali chiqayotgan momiqli aralashma tarkibidagi yigirishga yaroqli uzun tolalarni ajratib olish imkoniyati yaratiladi.



Ulyuk



Ulyuk tarkibidan ajratib olingan tola

ADABIYOTLAR TAXLILI VA METODOLOGIYA

Qo’yilgan vazifani xal qilish maqsadida chiqindi tarkibidagi yigiruvga yaroqli tolalarni ajratish qurilmasini yaratishni maqsad qilib olindi. Buning natijasida korxonada tola chiqish miqdori oshadi va yaxshilanadi. Qurilmani taklif qilishdan maqsad chiqindi tarkibiga qo’shilib ketayotgan uzun tolalarni ajratib olib, korxonada tola chiqishi miqdorining oshirish va uzun tolalarni chiqindi tarkibiga qo’shilib ketishini oldini olish orqali chiqindi tarkibidan tola ajratib olishdan iborat.

Taklif qilinayotgan qurilma quyidagi asosiy elementlardan iborat: paxta chiqindisi; riflyonli valik; baraban; cho’tka; arrali lenta pichoq; cho’tkali baraban; tola; patrubka (1-rasm).

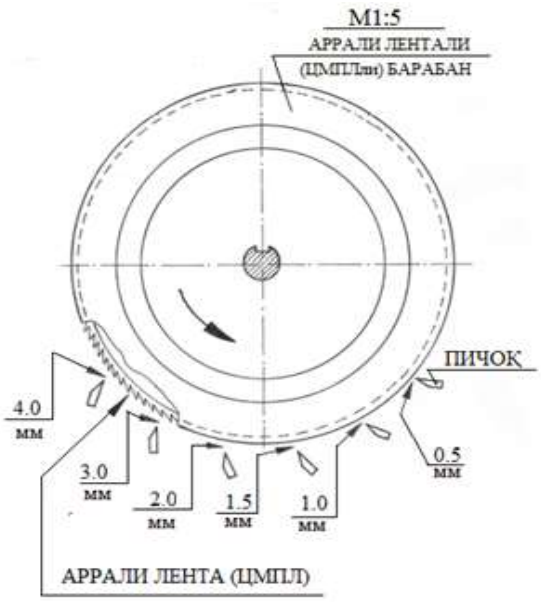
Ushbu qurilma quyidagicha ishlaydi: kirish quvuri 1 orqali chiqindi kiradi va 2 shyotka orqali ignali baraban 3 ga keladi va baraban ignalari yordamida uzun tolalalar ilib olinadi xamda aylanishi tufayli pichoqlarga 4 ga uriladi, cho’tkali barabanga keladi va cho’tkali baraban 5 yordamida ignalardan sidirib olinib, tola chiqish quvuri 6 orqali chiqariladi.

Masalani yechilishi: Mazkur qurilmaning tajriba nusxasi tayyorlangan bo’lib, unda dastlabki sinovlar o’tkazib ko’rildi va sinovlar natijasiga ko’ra haqiqatdan ham 1-2 % uzun tolalar chiqindi tarkibiga qo’shilib ketib, qimmatbaho xomashyoning yo’qolishiga sabab bo’lishi aniqlandi.

NATIJALAR VA MUHOKAMA

Tolaning uzunligini tavsiflovchi xossalari ichida uzunlik bo’yicha bir tekisda taqsimlanishi muhim texnologik ahamiyatga ega. SHu sababli tajribalar bir necha marotaba takrorlandi.

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1– rasm. Paxta chiqindilari tarkibidagi yigiruvga yaroqli tolalarni ajratib oluvchi qurilmani

Birinchi tadqiqot bo'yicha olingan natijalar o'rtachasi 1- jadvalda keltirilgan.

1- jadval

№	CHiqindilar olingan kalava ip yigiruv korxonasi	CHiqindilar namunalari, 100 grammdan	Paxta chiqindisi, Standart-3,7,11	
			Toza tola gramm	Iflos aralashma gramm
1	Nam teks. (Namangan)	100	79.46	20.54
2	RUSO-UZBEK-TEKS (Farg'ona)	100	70.69	29.31
3	AL-YOR-TEKS. (Andijon)	100	76.05	23.95



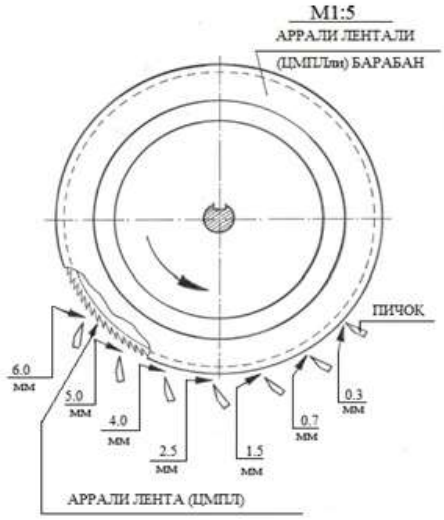
2 – rasm. Paxta chiqindilari tarkibidagi yigiruvga yaroqli tolalarni ajratib oluvchi qurilmani.

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2- jadval

№2-tadqiqot bo'yicha olingan natijalari o'rtachasi

№	Chiqindilar olingan kalava ip yigiruv korxonasi	CHiqindilar namunalari, 100 grammdan	Paxta chiqindisi, Standart-3,7,11	
			Toza tola gramm	Iflos aralashma gramm
1	Nam teks. (Namangan)	100	77.19	22.81
2	RUSO-UZBEK-TEKS (Farg'ona)	100	71.95	28.05
3	AL-YOR-TEKS. (Andijon)	100	67.85	32.15



3 – rasm. Paxta chiqindilari tarkibidagi yigiruvga yaroqli tolalarni ajratib oluvchi qurilma garniturasi

3- jadval

№3-tadqiqot bo'yicha olingan natijalari o'rtachasi

№	Chiqindilar olingan kalava ip yigiruv korxonasi	CHiqindilar namunalari, 100 grammdan	Paxta chiqindisi, Standart-3,7,11	
			Toza tola gramm	Iflos aralashma gramm
1	Nam teks. (Namangan)	100	79.04	20.96
2	RUSO-UZBEK-TEKS (Farg'ona)	100	74.08	25.92
3	AL-YOR-TEKS. (Andijon)	100	72.93	27.07

4- jadval

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Paxta chiqindilari tarkibidagi yigiruvga yaroqli tolalarni ajratib oluvchi qurilmani №1-2-3-tadqiqot bo'yicha olingan natijalari o'rtachasi

№	CHiqindilar olingan kalava ip yigiruv korxonasi	CHiqindilar namunalari, 100 grammdan	Paxta chiqindisi, Standart-3,7,11	
			Toza tola gramm	Iflos aralashma gramm
1	Nam teks. (Namangan), RUSO-UZBEK-TEKS (Farg'ona), AL-YOR-TEKS.(Andijon) korxolarni O'rtachasi	100	74.35	25.65

XULOSA

Yuqoridagi jadval bo'yicha xulosa qilinsa, kalava ip yigirish korxonalarining paxta chiqindilari (tarandilari)ning o'rtacha hisobda 74.35 foizini toza tola va 25.65 foizini esa yaroqsiz iflos aralashmalar tashkil qilmoqda. Bundan ko'rinib turibdiki tadqiqotlar natijasida qurilmaga eng maqbul TSMPli baraban bilan pichoqlar orasidagi masofani birinchi tadqiqot bo'yicha olingan, undan kam qilinsa pichoqlarni sonini toza tolalar miqdori iflos aralashma chiqindilariga ko'p chiqib ketadi.

REFERENCES

1. B.T. Aliyev, A.A.Maxmudov, A.I. Karimov. Theoretical analysis of the working bodies of the spinoff in cotton waste. International Journal of Advanced Science and Technology Vol. 29, No. 12s, (2020), pp. 1891-1897
2. B.T. Aliyev, A.A.Maxmudov, A.I. Karimov. Mathematical Modeling of The Interaction Of Cotton Wastes With The Discrete Position of The Mass Of Cotton Waste. International journal of advanced science and technology Vol. 29, No. 9s, (2020), pp. 6313-6320.
3. A.A.Maxmudov, B.T. Aliyev, A. Bobomatov. Detection of influencing forces of cotton flier on the elastic plate of impurity taking grid of the cleaner. International Journal of Engineering Research & Technology. (IJERT) ISSN: 2278-0181 Vol. 9 Issue 02, February-2020
4. Sultonov M.M. Obidov A.A. Study of fiber motion in a needle drum fiber separation device. universum: technical science, 5-74, 33-37 R.
5. M.Sultanov, A.Obidov. Investigation of working parts of fixed device designed to separate spinning fibers from fibrous waste that can be spun. Journal of Critical Reviews, JCR. 2020; 7(4): 2314-2322, doi: 10.31838/jcr.07.04.362, 5614-5623 P.

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6. A.A.Obidov, M.M.Sultanov. Study of Technological Parameters of Fiber Separation Device. International Journal of Psychosocial Rehabilitation. 2020, Volume 24 - Issue 5, 6400-6407 P.
7. U.Boboyev, A.A.Obidov, K.J.Matkarimov. Research Capacity of the Fiber of Long Fiber Separating Drums from Waste Fibers Composition, International Journal of Innovative Studies in Sciences and Engineering Technology (IJISSET), Volume: 5 Issue: 3 | 2019, 28-31 P.
8. A.Obidov, O.Mamatqulov M.Sultanov. Theoretical Analysis of the Movement of Cotton Piece on the Slope Surface, International Conference «Science and practice: a new level of integration in the modern world». Conference Proceedings. Berlin-Warsawa, 2018, 82, 151-156 P.
9. Kh.Axmedxodjayev, A.Umarov, K.Ortiqova. Investigation of the Ginning Process on DP Series Saw Gin Stands, Engineering Vol.11 No.08(2019), Article ID:94702,8 pages.
10. J. Ergashev, J.Kayumov, N.Ismatullaev, U.Parpiev. Theoretical Basis for Calculating the Determination of the Optimal Angle of Rotation of the Slit and Air Velocity. International Journal of Advanced Science and Technology Vol. 29, No. 03, (2020), pp. 12776 – 12784.
11. Obidov A.A. Investigation of the working surface of a new seeding machine // Journal of Textile Problems. - Tashkent: TITLI, 2006. - №2. - 29-32 p.
12. U.Kh.Meliboyev. Fundamentals of modeling technological processes in the textile industry. Study guide, Namangan, 2020, 250 P.
13. Sevostyanov AG. Methods and means of research of mechanical and technological processes of the textile industry. Moscow State Technical University named after Kosygin. LLC "Soviage Bevo", M., 2007.
14. A.Obidov, M. Vokhidov, J.Abdurahmonov. Exploring the Efficiency of Experimental Construction of Sorting Ginned Cotton Seed Machine. Engineering, Scientific Research Publishing. Vol.13 No.1, January 2021.
15. Obidov A.A. Improvement of the technology of cleaning and sorting of ginned seeds. Dissertation of Candidate of Technical Sciences. - Tashkent: TITLI, 2007. - 200 p.
16. A.Obidov,X.Akhmedhodjaev, O.Sarimsakov, Q.Holikov. investigation of the properties of fibrous cotton seeds, for sorting on a mesh surface. engineering, Vol.10 No.09(2018), 572-578 P.