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Provedeny Theoretical Studies pnevmopoter trehtrubnoho kontsentrycheskoho teploutylyzatora for zhyvotnovodcheskyh premises. As a result of set of research zakonomernost Changed Potter and pressure-power pnevmovtrat a constructive and technological parameters teploutylyzatora (dlyny, On external RADIUS duct and air flow entries).

Resistance, Options, air, duct, power, teploutylyzatorov, pressure.

Theoretical study air losses three pipe concentric heat utilizers forfarm buildings. Our results established pattern of change of pressure loss and power air losses of structural and technological parameters of heat utilizers (length, radius and outer duct feeding air flow).

Resistance, parameters, air, air duct, power, heat recovery units, pressure.

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Wear SURFACE sieve UNDER GRAIN MATERIAL

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As the separation classifiers crushed grain mass using a variety of devices, including the largest distribution became sieve. Included features a perforated structure their systems and analyzed the wear facets holes and milled grain material.

Crusher, sieve, demolition, crushing, durability, technical solution, change shape, perforation.

Problem. The separation of mixtures of grain fractionation occurs on the basis of their different physical and mechanical properties. The most widespread practice in feeding and sorting of grain went reshitni separators. They are a flat or cylindrical perforated holes the size and shape of which depends on the resulting fractional composition of the product.

Analysis of recent research. Despite its simple structural simplicity and operational benefits reshitni separators have a significant drawback - lack of durability. It causes

need for periodic replacement to continue normal operation of machines. Especially high intensity of wear observed in a sieve grain crushers. The reason for this is primarily a relatively high velocity of the grain crushing chamber and striking character repeated stresses at contacting seeds with a working surface sieve. Number of covered material about the change of geometric parameters of sieves and consequently the quality of the original product.

Results. In the study of the process of grinding on zernodrobartsi analyzed the movement of grain material in the crushing chamber, which in total consists of particles of a certain shape and size. Also, it was found that the sieve is an important body of work that ensures the quality of the product obtained the desired fraction.

After analyzing the crushing process, it was found that the grain and milled material moves in a circular flow. When set mode crusher intensity of particles passing through the sieve is constant and corresponds to the number of shredded pieces. By increasing the mesh size sieve and angle of coverage of them working chamber, uniform fractional composition of grinding products better.

The quality of crushed grain mass can be broken only when the size and shape of the holes seperuyuchoho sieve will vary during operation, causing, the source material is nedopodribnenyy. For kormopyhotuvalnoyi industry this factor is very significant, because the degree of grinding grain depends not only on the quality of the mixture, but weight gain in animals fed with data feeds.

After monitoring the wear holes separating sieve was found irregularity of distribution as the width of the working chamber and made holes in general.

Wear the working surface of the sieve can be seen as a natural process of losing the original form of the interaction of the grain mass in the flow of the workflow. Research has established that the initial

(rectangular) form, which can be seen in cross-section, a new sieve with wear and becomes rounded forryvoliniynoyi surface (Fig. 1)

After some research, it was found that the dynamics of wear parts with an angular shape is uneven distribution and the most exposed falls primarily to the top corner and it leads to the formation of abrasion and curved shape. This is where there is the most intensive process of wear and rapid loss of the original shape of the hole.

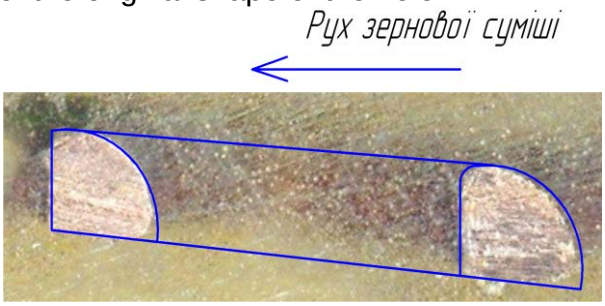

Fig. 1. Cross-section of worn hole sieve crusher.

Explain the intensity abrasion sieve material can form first protruding corner seats wear. In addition, the angular form is less protected from damage and are more vulnerable to external factors that determine it. In need of discharge hole shape indicates the initial angular shape that relatively rapid changes in rounded, thereby extending the perimeter of interaction with the grain mass. Dynamics of gradual changes in the shape of the hole in the wear schematically shown in Fig. 2.

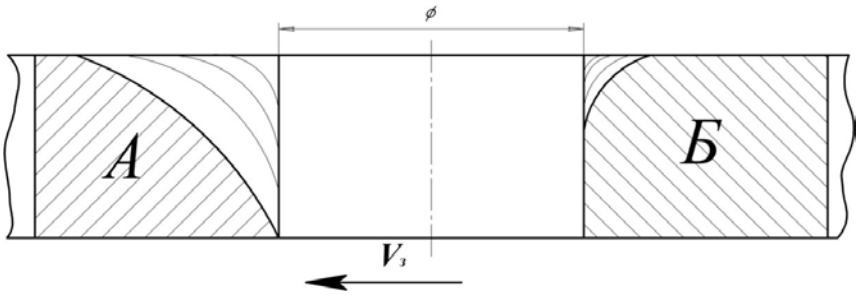

Fig. 2. Dynamics of gradual changes in the shape of the hole: Vs - direction of the grain mixture.

It is noted that the opposite edge of the hole (side B) also wear out, but the intensity of the process of changing the shape on this side is smaller than on the side A.

Preliminary study changes in the shape profile wear holes indicates that at regular crushers operating time profiles are displaced in depth details on unequal distances. A more detailed analysis of the effects of

wear showed that profiles depending on the operating time moved on law that with sufficient accuracy for practice can be described rivnospovilnenym movement. This fact opens the possibility of a theoretical description of the process of wear prosiyuyuchyh sieve holes through the development of appropriate mathematical models. Legitimately to assume that the magnitude of wear (abrasion) sieve working surface will affect the dynamic equilibrium between the forces acting in the crushing chamber during the passage of material through the sieve openings. Given that crush material moving towards applied shock loads that cause hammers, sieves facets that are in the way of action wear more intense than the rest of their party.

Characteristic surface wear separating sieve is also the presence of some cavities and other irregularities (Fig. 3), which are caused by collisions between the working body with small patches of solid (sand, stones), which also are part of the grain material, and the dimensions of which are about 0.3-0.8 mm.

Fig. 3. The uneven surface of the sieve as a result of blows hard patches.

Conclusion. Given the design features sieves as perforyrovanyh details and dynamics of wear should be considered as a promising first application of design techniques to enhance their longevity.

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AS A klassyfykatorov at razdelenyy yzmelchennoy zernovoy Fire-proof compounds yspolzuyut Various Device Distribution Among kotorыh naybolsheho have obtained sieve. Features Uchtenы s stroenyya How perforyrovannыh systems and proanalyzyrovan yznos faces otverstyy at yzmelchenyy grain material.

Crusher, Sieve, yznos, yzmelchenyya, Durability, Tehnicheskoe decision, Changing forms, perforatsyya.

As separation of crushed grain mass used different devices, the most common are sieves. Also take into account features of its structure as perforated systems and analyzed the wear facets holes and milled grain material.

Crusher, Sieve, wear, crushing, dureliability, technical solution, change shape, perforation.

UDC 631.331.5: 001.53 / 8

RESULTS the reserve DOZATORANA precision seeding industrial crops cultivated pneumatic apparatus

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The paper presents experimental data for evaluating the effectiveness of additional backup dispenser technology to improve reliability performance pneumatic seeding machine.

Pneumatic seeding machine backup dispenser, technological reliability, probability spaces.

Problem. Accuracy of planting a foundation for subsequent yield when grown crops. Largely determined by the design of the accuracy of the seed system, which should provide the necessary level of reliability performance of the process. In turn indicators of technological parameters depend on the reliability of work study which has important practical value. For the main indicator of the reliability performance of the process sowing machine can

accept the likelihood of failure-free operation (safety factor). As one of the failures are gaps seeds, then the quantitative characteristics of the apparatus lawfully enter this figure as the probability of spaces.$\xi_{\text{пр}}$