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In Article rassmotren usovershenstvovanyya method of carrier-pytatelya semyaochystytelnoy mashiny rasschytanы ego and Basic Settings and work regimes, something pozvoljaet uluchshyt Quality work statsyonarnoho points putem Provision ravnomernosty entries heap.

Foddervыe travы, seeds, Woroch, stationary point, conveyor-pytatel, ravnomernost entries.

In paper the method of improvement of load conveyer of purifier of seed machine is considered and it is expected basic parameters and office hours, that allows to improve quality of work of stationary point by providing of evenness of serve lots.

Forage herbares, seed, lots, stationary point, load conveyer, evenness of serve.

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631,372

DOSLIDZHENNYA traction motor blocks INDICATORS FOR CONCRETE

D.In. Shkarivskyy, Ph.D. RG Shkarivskyy, MA

Statementbut research results traction for heavy motor-block on concrete.

Motorcyclesblock, tYahovah effortsla,Betodistrict, experimentsmental research.

Resolutionska problem. Hand the end of 2011 production of 48.2% of gross agricultural farms provided [1]. In a prominent place in the group of mobile energy resources (MEW) for these farms go tillers (mobile energy vehicles with axle

2K2) tractors, whose total number is growing rapidly and the latest statistics is more than 65 thous. [2].

This technique is relatively new to the consumer and does not always get the expected result of structural reasons, operationiynyh and technology. One of the major technological reason is the lack of skills in building components and excessive fatigue of the operator. This is especially true walking tractors and aggregates based on them. In such circumstances are relevant issues concerning the study process properties walking tractors and aggregation conditions that they provide appropriate framework for implementation of the state target program of technical policy in agriculture.

AnaLiz recent studies.Studyin-D & D construktorski work with small-sized oil plant, characterized axle 2K2 can be grouped into several separate groups, namely: 1 - dedicated to improving the design of walking tractors [3, 4, 5, 6]; 2 - devoted to the problems of control and ergonomic aspects of the operation of motor-blocks and aggregates based on them [7, 8, 9, 10, 11]; 3 - work devoted to the stability of the walking tractors and aggregates based on them [12, 13]; 4 - devoted to the peculiarities of technological exploitation walking tractors and aggregates based on them [14, 15, 16, 17].

Toresearch shows, are presented in these papers relating to issues: reducing soil compaction and increasing traction power means, improving performance in the first transmissions of certain groups; reduce the harmful effects vibration to the operator and effort spent on administration - in the second; Sectionidvyschennyu of the unit on the basis of actual walking tractors and walking tractors at work on the slopes - in the third; the enforcement of certain manufacturing operations - in the fourth group.

Among these are no works that highlight the results research that would establish the conditions and limits of achieving the maximum possible values of the main parameters for classification MEW - traction.

Metand dossurvey findings. EIDnachyty toerhnude IUsamein poppysymalno possible values of traction for heavy motor-block.

Rezultaty dperssurvey findings. In the procB eqspluatatsiyi motoblofor may be aggregated with various machines and tools, which influence the direction and applying traction (traction resistance). In order to establish limit values traction, the study was carried out on the concrete, as a background, which has one of the highest values of the coupling. Pulling force prykladalos at different heights and different angles to the vertical

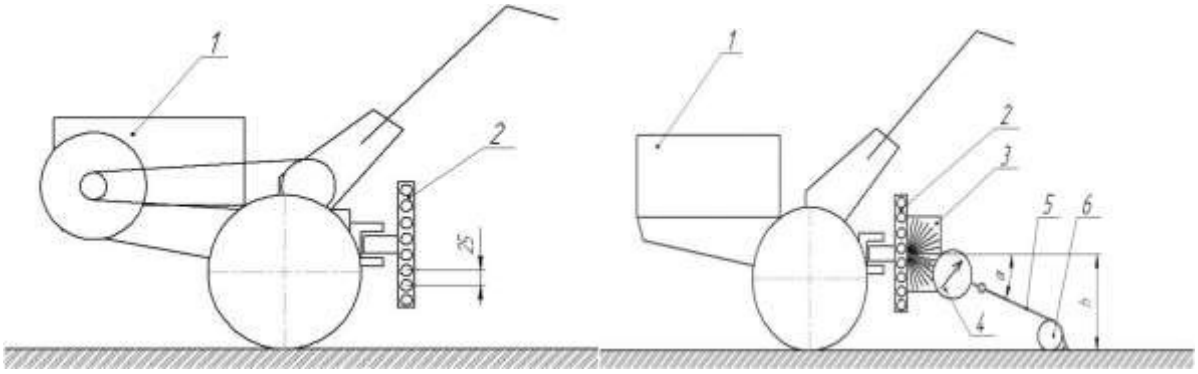
longitudinal

SectionDell. The object of the research was the walk-behind tractor Zubr JR-Q78, which in a certain way (as planned points and under predetermined angle) is applied traction resistance. To ensure the implementation of the planned activities additionally developed a device that allowed the tilt latch traction resistance and coordinate the point of application height - Fig. 1. Named device is installed on staffing unit for aggregating power means and by vertically spaced holes made with 2,5 cm allows to apply traction resistance of the motor-block at the point where the height of the location, relative to the standard device for aggregating multiple of 2.5 . The equipment used for this research is provided in the explanatory notes to the figure.

During the research provided a horizontal position by the longitudinal axis of the motor-block of operator levers

upravlinnya. Thus from a digital camera filmuvavsya process increase traction, the upper limit of which was

startedslipping visible for drivers. Filming was carried out so that the frame was a dynamometer and motor-block engines.



and) *to*)

Ric. 1. Device for implementing applying traction resistance at different heights (*and*) And placing equipment on motoblotsi during the study traction limit values (*to*);**α**- Angle

slope of the line of action of the traction resistance; 1 - walk-behind tractor; 2 crosspoint device for implementing the method of applying traction resistance; 3 - goniometer scale; 4 - dynamometer DPU-GOST 13837-79 0.5-2; 5 - chain; 6 - stand.

Totraces were organized under full factorial plan 22 variables were the "height of the point of application of traction resistance (points Trailer) - h» and «the angle of the line of action of the traction resistance - *α*». The lower and upper levels of the factors listed in Table. 1. The value of factor levels "height of the point of application of traction resistance (points Trailer) - ***h***"Justified in terms of crop lumen power means (with

UMOyou that it was not less than the road), and the values of the lower and upper levels of the factor "angle of the line of action of the traction resistance - ***α***"Determined taking into account the structural features of the most common designs walking tractors and cultivators each may tilt in the longitudinal vertical plane during operation.

1. From-identification lower and upper level factors.

Mynnyk	Natural values levels		Value UAAachennya factors in			
	Categori	toerhniy	1	2	3	4
In theysota location of the point of application of traction resistance (point of the trailer) - ***h***,mm	240 ± 1	540±1	-	+	-	+
Kut slope of the line of action of tractlon resistance - ***α***Hail.	0	15±1	-	-	+	+

In the Table. 2 shows the results of experimental studies to determine the limit values of traction power compact vehicle with axle 2K2.

2. Rezultaty experimental studies determination of limit values of traction motor-block on concrete.

Number of	Matrytsya planning experiment			Value UAAachennya investigated parameter in replications		
	variable factors					
	h	*α*	*X3 = X1 × X2*	*And*	*II*	*III*
	X_1	X_2				
1	-	-	+	1.25	1.30	1.40
2	+	-	-	1.50	1.40	1.55
3	-	+	-	1.60	1.70	1.80
4	+	+	+	1,85	1,90	1,85

In order to establish regression spent processing the experimental data allowed at the 95% confidence probability to receive regression species.

$$P_{GK} = 1.59 + 0,013\alpha\ , \qquad (2)$$

where *α*- The angle of the line of action of the traction resistance (traction) degrees.

In relation (2) is not a factor that takes into account height arrangement drawing point - "height of the point of application of traction resistance (points Trailer) - *h*». This factor may be included in the regression relation (2) at the level of confidence probability of 50%, which is not sufficient for the analysis of his participation. Under these conditions, we can say that as a result of studies found

uof the studied factors limiting the level of traction that develops mobile power tool with axle 2K2 affects only the angle of the line of action of the traction resistance (traction) *α.*From the research results it can be concluded that with increasing angle of inclination of the line of action thrust its size increases. Thus the operator in the energy which creates a supporting-driving unit involved in creating traction. This can be explained by the fact that with increasing angle ***α***Collectionilshuyetsya point of traction, which is trying to walk-behind tractor toward action jet moment and this moment is compensated by supporting elements of machine-guns and efforts to control levers. And provided that the tests the longitudinal axis of the motor-block should be horizontal (this condition treated before the study), it can be argued that an operator holding enerhozasib horizontally by pressing the control valve provided to guide the supporting surface and this way affected the amount of traction efforts. For different values of the angle *α*sySilla on the levers were different, so different were mentioned traction, increasing with the increase of the said angle.

Stillway of walk-behind tractor «Zubr» JR-Q78 heavy concrete class tractive effort can develop within (1.59 - 1.79) kN, which falls short of the record low low traction class 0.2 1.8 kN [18]. This is because a walk-behind tractor operating weight (186) kg [19] and to provide traction 1.8 kN necessary weight at 555.6 kg [20] Thus, the share of traction, receipt of which is provided by the supporting -rushiynym machine operator estimated shortage of weight at 330-370 kg. The operator compensates for the lack of mass action of its support-system and the driving system of levers that are used to control the motor-block.

Conclusion. As a result of studies found
uwalk-behind tractor at heavy weight 186 kg operational in concrete on the verge of collapse drivers slipping in full, provided the operator keeping the horizontal position of the motor due to load its support-staff develops the driving force within 1,59-1,79 kN depending on the angle of applying traction efforts. Establishing a balance between traction on other nature-use them for tillers, backgrounds and load operator may make directions for further research on the subject.

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Pryvedenы Results of research traction properties of heavy motor-block class for concrete.

Motoblock, Traction usylye, concrete, Experimental study.

The results of investigations of traction properties of heavy-duty two-wheel tractor on concrete.

Walk-behind tractor, traction, concrete, experimental research.

UDC 631.363.21

AnalogWith CONDITIONS OF DESTRUCTION seed to the shock of contact with the blades

VA Straw, AV Straw, Ph.D.

In the article the seed of destruction in terms of shock interaction with rigidly mounted shovel defined energy destruction and the angle of reflection crushed particles grounded theoretically possible performance of the shredder.

Zehrbut, blade, grinding grain parameters, grinding condition, analytical dependence.

Resolutionska problem. DTo define theoretically grounded productivity shredders working on the principle of effort, it was necessary to analyze the conditions of fracture grain materials under working bodies, primarily rigid on the axis of rotation.