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Proanalyzyrovanы and klassyfytsyrovanы aggregates for bandpass Monitor to deliver deployment and Impact on the soil workers organs.

#### The unit, strip, handling soil, laboring body.

Aggregates for strip tillage are analyzed and graded by types of accommodation and influence on soil working bodies.

Agrigate, unit, strip tillage, working body.

UDC 631.4: 631.51

#### BACKGROUND OF THE PARAMETERS MOLOTYLNO-SEPARUVALNOYI harvesters SAMPO-UKRAINE 300

### DG Voytyuk, Ph.D., corresponding member of the Academies Ukraine M.S. Wolanska Engineer SV Smolinskyy, JO Gumenyuk, Ph.D. National University of Life and pryrodokorystuvaing Ukraine M.D. Zanko, Ph.D. SI "Ukrainian Research Institute of forecasting techniques and vyproduvannya named Leonid burned"

Fromand the research proved the possibility of creating a modern combine harvester Ukrainian cooperation with the Finnish company Sampo Rosenlew Ltd and establishing its production in Ukraine.

Molotylno-separuvalna system, processor, 300 Sampo-Ukraine.

> © DG Voytyuk, MS Wolanska, SV Smolinskyy, YO Gumenyuk, MD Zanko, 2014

**Resolutionska problem.** Reasonable scientists and supported by government agencies prospect production in Ukraine in the next 80 million years. Tons of grain based on the use of potential possibilities of soil fertility, breeding achievements of modern science and the introduction of new technologies for growing and harvesting grain. An important factor in solving this problem is the availability of a sufficient number of modern combine harvesters, which can ensure the collection of crops in agronomic terms set with minimal losses.

Andstitutionalism combine Park Ukraine and its technical level indicates the need for a detailed analysis of its quantitative composition and design solutions to improve molotylno- separuvalnyh systems (MSS).

AnaLiz recent research. Feedertion analysis combine

parkand to study the parameters of MCC combines dedicated Kravchuk V., M. Zanko, O. fire victims, S. Smith, W. Voytyuk, A. demo, A. Nadtochiya, T. Beck, H.-D. Kutzbach, P. Wecker and many other scientists. The researchers conducted a detailed analysis of park combines used in Ukraine according to the criteria of performance, fuel consumption, power consumption, direct operating costs, the cost of one horsepower and kilogram combine reliability coefficient, are graphs of mathematical models and grain losses by MCC on the conditions and mode of operation.

**Metand research** - Determination of the most appropriate scheme MSS for collecting grain harvesting in farms with a total acreage 500-5000 ha with yields of 50-60 kg / ha.

**Rezultaty research.** AboutPowered by monitoring combine market of Ukraine [1, 2] showed that used to

fieldUkraine's combine domestic and foreign production

have different parameters on the above criteria. Among the 45 brands surveyed combines the best performance turned in

combayniv firm SAMPO SR-3065 L.

Also were conducted comparative tests of commercial harvesting in terms of determining the flow of fuel per hectare, the results of which are shown in Table. 1 Table. 2. The data tables show that combines the company "Sampo" with a 1,3-1,8 times less fuel consumption compared to the company combines "Claas" and Belarusian harvesters Polese GLC-812.

Prand choosing the best brand of the future Ukrainian Finnish combine together with "HC" Innovative Technology "was

anddaptovano technological scheme (Fig.) Combine SR-3085 Superior.



Ric. Constructional and technological scheme combine Sampo-Ukraine 300: 1 - reel; 2 - cutting than reapers; 3 - feeding auger; 4 inclined conveyor chamber; 5 - kamenevlovlyuvach; 6 - beater; 7 concave; 8 - Bitters; 9 - fan; 10 - Shake the board; 11 - grain elevator; 12 - Grain auger; 13 - pitched board; 14 - reshitnyy condition; 15 - sieve grain cleaning system; 16 - extension sieves; 17 - shakers; 18 - alarm filling straw bonnet; 19 - Wood-spreader Straw; 20 - previous beater; 21 concave; 22 - unloading auger; 23 - horizontal augers; 24 - the loading hopper auger; 25 - grain hopper; 26 - engine; 27 - drum solomorozpushuvach.

MArch harvester	In thea lightning, thousand s of	Ness powerful engine hp	In thea lightning one hp dollars.	Product yvnist, ha / h	In theytrat y palno- st_kg_/	In thea lightning picking one
John Deere- 9660	300	310	980	1.79	13,14	1497
Case-1680 Claas- 280		260	1194	1.48	10.54	1600
450	260	275	1020	1.96	9.12	1080
Massey Ferguson-38	223	265	980	1.65	13.31	1305
Deutz Fahr- 4080	200	275	848	1.45	10.82	1309
Arru-530 (Don) Sampo-3065	) 120	250	484	1.62	12.08	644
(Ukrainian <u>toariant)</u>	144	250	576	2.05	10.09	558

1. Cf.ivnyalna characteristics combine harvesters.

Header Width,	The length of	Speed, km / h.	Fromibra na area,	Yield t / ha	In theytrata fuel I / ha
6.1	1820	3-5	3.49	4.6	13.5
6.8	1820	3-5	4.2	4.6	24.2
7.2	1820	3-5	4.0	3.6	26.1
5.8	1820	3-5	2.8	4.6	18.6
6.1	1820	3-5	3.16	4.6	13.6
6.1	746	3-5	3.42	6.05	16.5
5.8	746	3-5	2.46	6.05	23.6
6.8	746	3-5	482	605	21.8
	6.1 6.8 7.2 5.8 6.1 6.1 5.8	6.1 1820 6.8 1820 7.2 1820 5.8 1820 6.1 1820 6.1 1820 6.1 746 5.8 746	o       j         H       o         H       H         H	o       j	o       o <tho< th=""> <tho< th=""> <tho< th=""></tho<></tho<></tho<>

2. Data prabout robotin combayniv with. Horodivka Kryzhopil region Vinnytsia region.

By increasing concave area 21 decreases the load on the keys straw, respectively, increases the overall performance of the combine and stabilize the main threshing drum 6. With Dual separation up to 40% of the grains stands on the front drum. Dvobarabanna MCC is particularly effective at work in the case of a damp yea weight.

Bazhlyvoyu previous threshing drum function is leveling mass which enters the main drum. Dual separation improves vymolochenoho grain without a significant increase in fuel consumption. Drum previous abouthammer has a diameter of 400 mm and rotates with the same number of turns as the main threshing drum, but at the expense of smaller diameter, its speed is 80% of the speed of the drum.

Molotylno-separuvalna system is based on the scheme: threshing drum previous 20 beater 6,

Bitters 8 jack, keyboard solo separator rough heap (shakers) 17 grain cleaning system. To reduce losses of grain from straw provided solomorozpushuvach drum 27.

This contributes to balancing. obmolochuvanoyi mass flow that enters the beater. The front concave

passis lehkovymolochuvane grain and consists of seven plates. Front concave rods have the same thickness of the core rods concave. For best

indicators clearance in front of the thresher can be adjusted independently of the main deck adjustment. The front concave governed by a button located outside the cabin, with

pravohpart of the combine, but adjusting the front deck has

smaller effect compared to the control deck head drum. The gap on the front deck 30% more clearance under the main drum.

In thestanovlenyy to model SR-3085 Superior barabansolomorozpushuvach 27 may increase the efficiency of separation to 20%. Drum-solomorozpushuvach turns over the keys straw, tossing straw is so stirring. The angle of slope solomorozpushuvacha fingers can be adjusted depending on the conditions of the collection.

In order to organize joint production combine Ukrainian company Sampo Rosenlew Ltd was set of "HC

"And novatsigni technology "components for assembly of a prototype harvester, which awarded the mark" Sampo 300-Ukraine "and presented it to the state acceptance trials in

UkrNDIPVT them. L.

Pogorelogo.

Ekspluatatsiyno technical indicators combine harvester Sampo-Ukraine 300 determined in accordance with GOST 24055 and GOST 24057.

Bulland evaluated the design meets the self-propelled harvester Sampo-Ukraine 300 requirements

regulations, testified that combine design parameters for safety and ergonomics generally corresponds with regulatory requirements. The positive design features include the presence of a combine reverse oblique camera; ability to disable the straw chopper one lever; availability threshing drum preceding that

Technology facilitates unloading main MCC increase

forilkosti separation grain threshing area, reducing the number of grains as part of a rough heap entering the shakers, and, ultimately,

- frommenshennyu level of losses for the

thresher.

**Conclusion.** In the UMOIslands economic crisis, CategoriesEdohandsome

thathnichnoho level of equipment of agricultural machinery should start joint production with the company Sampo modern combine harvester. Consent Finnish side to its share of investments in the form of supply of modern equipment, the cost of training of technicians is the turn of the Ukrainian side. And while we are on the stated amount of grain production will come implemented.

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The results of research obosnovana Ability creation sovremennoho Ukrainian zernouborochnoho combine with sovmestno fyrmoy Finnish Sampo Rosenlew Ltd and Organization ego seryynoho production in Ukraine.

Molotylno-separyruyucha system, processor, 300 Sampo-Ukraine.

There are ascertained the making possibility of modern Ukrainian grain harvester along with Finnish company Sampo Rosenlew Ltd and the preparation for this production in Ukraine.

Threshing-separately system, combine, Sampo-Ukraine 300.

UDC 620.95

## RELATIONSHIP POWER PUMP TAnd PARAMETERS HIDROREAKTYVNOYI stirrer with stirring rapeseed oil

## D.A. Holub, PhD MU Pavlenko Engineer

An experimental results of the impact of structural and technological parameters of equipment for the production of biodiesel pump power consumption when using hidroreaktyvnoho mixing rapeseed oil.

# Biodiesel, pump, power consumption, speed, nozzle, shoulder.

**Resolutionska problem.** Prand biodiesel production one of the key points is to provide a complete walkthrough esterification process, because it affects the quality of the product.

On the passage esterification process affecting properly selected chemical components, temperature, time and type of mixing process. Given that in the

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