

Production Association "GOMSELMASH"
Republican Design Unitary enterprise
"GSKB for Grain and Fodder Harvesting Machinery"

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APPROVED BY
RKUP GSKB Director
/signature/ A.A. Dyuzhev
" " _____ 2011

CERTIFICATE

**results of bench testing of the MPPN-2.00.000-04 knife planetary drive mechanism
manufactured by LLC Concern "Inmash"**

No. 069 - 11C

dated July 14, 2011

Conclusions and suggestions

1 The MPPN-2.00.000-04 planetary knife drive mechanism provided for testing, manufactured by LLC Concern "Inmash", withstood bench tests in a given operating time of 300 hours.

2 The distance from the support plane of the MPPN-2.00.000-04 mechanism to the middle of the leash has been increased by the manufacturer from 89 mm to 101 mm, which makes it possible to use the mechanism in the design of grain reapers serially produced by PO "Gomselmash".

3 Changes made by LLC Concern "Inmash" to the design of the MPPN-2.00.000-04 mechanism based on the results of earlier bench tests are efficient. During the tests, self-loosening of the driver cover bolt or the bevel gear drive pinion axle fracture did not occur. During the tests, no ejection or abundant release of grease was observed at the joints and in the zones of the bearing assemblies.

4 Noise levels during operation of the MPPN-2.00.000-04 mechanism produced by LLC Concern "Inmash" is 1.8 ... 6.7 dBA higher than with the 85MVv GKF angle transmission, model "C" manufactured by "Schumacher".

5 During the tests, the noise levels during the operation of the MPPN-2.00.000-04 mechanism did not change significantly.

6 During the tests, it was determined that when operating under the same conditions, the steady-state temperature values are as follows:

- the base of the case and the side cover of the MPPN-2.00.000-04 mechanism, respectively, by 8 °C and 4 °C below the steady-state temperatures of the base of the case and the side cover of the 85MVv GKF angle transmission, model "C", by "Schumacher";

- the cover of the leash of the MPPN-2.00.000-04 mechanism is 31 °C higher than the steady-state temperature of the head cover of the angular transmission 85MVv GKF, model "C", by "Schumacher".

At the same time, the acquired steady-state values of the surface temperatures of the MPPN-2.00.000-04 mechanism do not exceed the maximum permissible values specified in TU 4775-001061156377-2011 "MPPN-2.00.000-04 model knife drive planetary mechanism".

7 In order for the leading design department to make the final decision on the use of the MPPN-2.00.000-04 planetary knife drive mechanism manufactured by LLC Concern "Inmash" in the design of grain reapers produced by Gomselmash, it is necessary to additionally check the noise level at the operator's workplace for compliance with the requirements of the combine operating with reaper equipped with the MPPN-2.00.000-04 mechanism.

Head of KSiIDM

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