

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT



संख्या / No. : Imp.140/189
माह / Month: September, 2013



New Swan (NSE RT 125) "Super Series" Rotavator



फॉर्म नं. 2210
दिनांक 02/08/16

भारत सरकार
GOVT OF INDIA
कृषि मन्त्रालय

MINISTRY OF AGRICULTURE

कृषि एवं सहकारिता विभाग

DEPARTMENT OF AGRICULTURE AND COOPERATION

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4. SPECIFICATIONS**4.1 General:**

Manufacturer	:	New Swan Enterprises Agro Division, C-213, Phase-8, Focal point, Ludhiana, Punjab-141010
Name of machine	:	Rotavator
Make	:	NEW SWAN
Model	:	NSE RT 125 "Super Series" Rotavator
Type	:	Gear Drive
Serial number	:	NSE 006123
Year of manufacture	:	2013
Type of blade	:	Hatchet (L-Type)
Working width of implement(mm)	:	1250
Recommended power source	:	30-35 HP Tractor
Prime mover used during test	:	John Deere 5310

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Percentage of wear of rotavator blades on mass basis

Sl. No.	Initial mass of blade (g)	Mass of blade after 40.1 hours of operation (g)	Difference (g)	Percentage of wear (%)	Percentage of wear on hour basis (%)
1.	1025.5	988.5	37.0	3.61	0.09
2.	1015.5	990.0	25.5	2.51	0.06
3.	1025.0	989.0	36.0	3.51	0.09
4.	1016.0	997.5	18.5	1.82	0.04
5.	1002.0	964.5	37.5	3.74	0.09
6.	1026.0	992.5	33.5	3.26	0.08

8. EFFECTIVENESS OF SEALINGS

After completion of dry & wet land operation for 25.1 and 15.0 hours respectively, the implement was dismantled for checking the effectiveness of sealing provided against ingress of dust, and water/mud in various sub-assemblies/components. The observations are given in ensuing table:

Sl. No.	Location	Whether ingress of mud and/or water was observed (Yes/No)
1.	Primary reduction gear box	No
2.	Secondary reduction gear box	No
3.	Rotor assembly (hub)	No

9. EASE OF OPERATION & ADJUSTMENTS

No noticeable difficulty was observed during the operation and adjustment of rotavator.

10. DEFECTS, BREAKDOWNS AND REPAIRS

No noticeable defect or breakdown was observed during 40.1 hours of field operation.

11. COMMENTS AND RECOMMENDATIONS

- 11.1 The specifications of implement hitch, does not conform to the IS: 4468 (Part-1)-1997. Hence, it is recommended that implement should be provided with the hitch conforming to relevant Indian Standards.

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- 11.2 Dimensions of PIC of implement, does not conform to IS:4931-1995 and therefore, it should be looked into for corrective action.
- 11.3 Chemical composition of rotor blade does not conform to IS: 6690-2002. This needs to be looked into for corrective action in production level.
- 11.4 Size of implement and power requirement should also be indicated on the labeling plate.
- 11.5 **Technical literature:**
A booklet, named Instruction manual and Parts list was provided for reference during testing.

However, it is recommended to bring out the manuals also in Hindi and other vernacular languages as per IS: 8132-1999.

12. APPLICANT'S COMMENTS

The applicant has no comments on the machine.

TESTING AUTHORITY

SANJAY KUMAR AGRICULTURAL ENGINEER	
M. K. VISHWAKARMA DIRECTOR	

Test conducted and report compiled by : ANSHUL PANDEY
S.T.A. (Inst.)

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