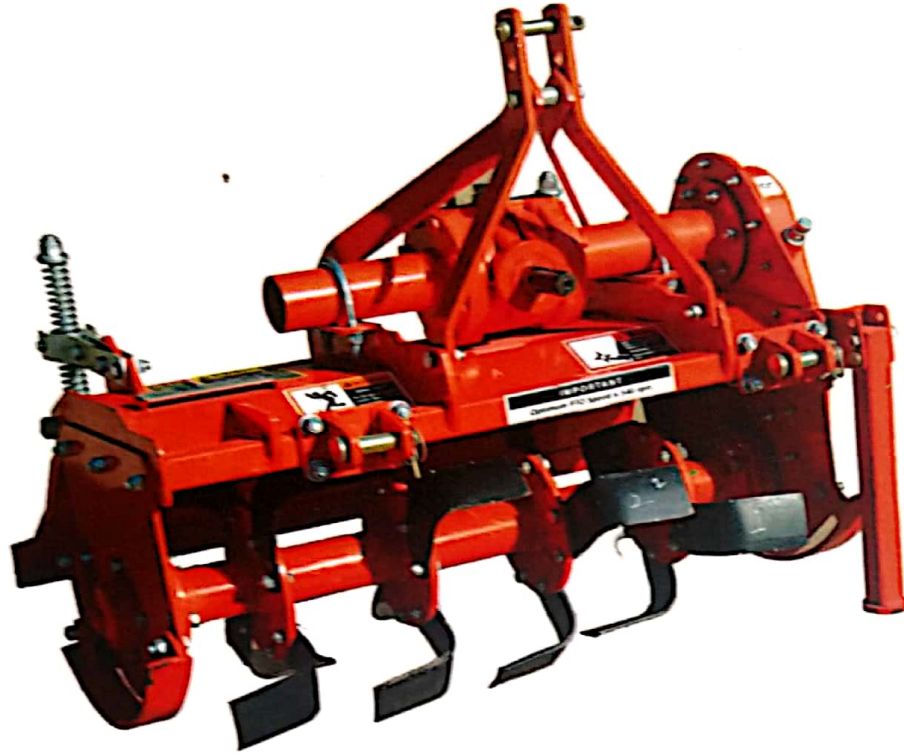


व्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT



संख्या / No.: Imp-230/303  
माह / Month: March, 2018



**LANDFORCE, ROTARY TILLER, Model: RNMSGHEMB  
(Gear Drive) (Tractor Operated)**



सत्यमेव जयते

भारत सरकार

GOVT OF INDIA

कृषि एवं किसान कल्याण मन्त्रालय

MINISTRY OF AGRICULTURE & FARMERS WELFARE

कृषि, सहकारिता एवं किसान कल्याण विभाग

DEPARTMENT OF AGRICULTURE, COOPERATION & FARMERS WELFARE

उत्तर पूर्वी क्षेत्र कृषि यंत्र प्रशिक्षण एवं परीक्षण संस्थान

**NORTH EASTERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE**

विश्वनाथ चारिआलि, जिला- विश्वनाथ (असम)

BISWANATH CHARIALI: BISWANATH: ASSAM, PIN - 784 176

[AN ISO 9001:2015 CERTIFIED INSTITUTION]

Website: <http://nerfntti.nic.in>

Ph. No. 03715-222094

Fax No: 03715-230358

E-Mail: [fnti-ner@nic.in](mailto:fnti-ner@nic.in)

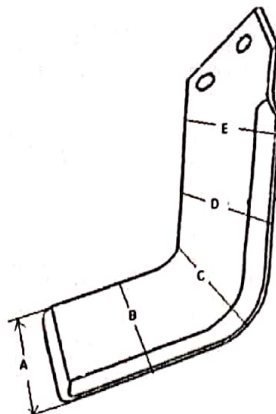


Fig 7 : DIMENSIONS FOR WEAR ANALYSIS

### 8. EASE OF OPERATION & ADJUSTMENTS

The operator can easily adjust and control the implement from operator's seat in the field as the adjustments are within the easy reach of operator. However the operator has to get down from the tractor in order to raise/lower the depth adjusting skids. No noticeable difficulty was observed during the operation and adjustment of rotary tiller.

### 9. DEFECTS, BREAKDOWNS AND REPAIRS

No breakdown was occurred during 41.7 h of dry land and wet land operation.

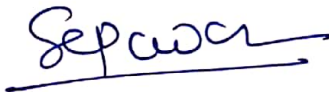


### 10. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

- 10.1 The dimensions of PIC yoke bore and PIC of the rotary tiller does not conform to IS:4931-1995.Hence, this should be looked into for corrective action for standardization.
- 10.2 The dimensions of three point linkage of the rotary tiller does not conform to IS: 4468-1997. Therefore, it is recommended to looked into corrective action.
- 10.3 The hardness of blade at edge portion and chemical composition is not within its desired range as per IS: 6690-1981. Therefore, it is recommended to looked into corrective action.
- 10.4 The rate of work was recorded as 0.160 to 0.197 ha/h with operation speed of 2.90 to 3.02 kmph.
- 10.5 The depth of operation in dry land operation was recorded as 8 to 10 cm with soil moisture content of 13.4 to 19.7 % in Sandy loam. The depth of puddle was recorded as 23 to 25 cm.
- 10.6 The hourly rate of wear of blade on mass basis in Dry land & Wetland operations was recorded as 0.41 to 0.50.% and 0.08 to 0.12.% respectively. The average wear of blade is considered as on higher side.



- 10.7 The hourly rate of wear of blade on dimensional basis in Dry land & Wet land operations was recorded as 0.02 to 1.60% and as 0.02 to 0.56% respectively. The average wear of blade is considered as on higher side.
- 10.8 Product, model, serial no. and year of manufacture are indicated on the labeling plate. However, it is recommended to specify size of implement and power requirement for the implement.
- 10.9 No ingress of mud and/or water was found in primary and secondary reduction gear boxes after 41.7 h of Dry land and Wet land operations and the sealing provided on different subassemblies were found effective.
- 10.10 **Technical literature:**  
Operator's manual, Service manual and Parts Catalogue were provided along with the machine during the course of testing in English only. It is further recommended to bring out these manual in Hindi and other vernacular languages as per IS: 8132-1999.

**TESTING AUTHORITY**

S. G. PAWAR AGRICULTURAL ENGINEER	
A.K. UPADHYAY SENIOR AGRICULTURAL ENGINEER	
K.K. NAGLE DIRECTOR	

Draft test report compiled by -

Sh. Rahul Prajapati & Sh. Abhishek Tiwari

**11. APPLICANT'S COMMENTS**

- 11.1 We agree with the report. As regard non-conformities, we will make the necessary changes in accordance to the relevant Standards.