

**AMCO ROTAVATOR, Model: AMCO RT 200 (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://nerfmtti.nic.in>

Ph. No. 03715-222094

Fax No: 03715-230358

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

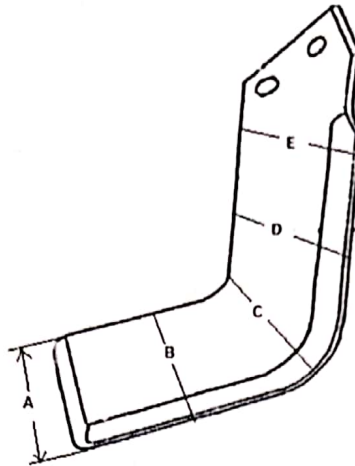


Fig 7 : DIMENSIONS FOR WEAR ANALYSIS

### 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 Rotavator.

### 9. DEFECTS, BREAKDOWNS AND REPAIRS

No breakdown was occurred during 41.8 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 rotavator does not conform to IS: 4931-1995. Hence, this should be looked into for corrective action for standardization.
- 10.2 The dimension of three point linkage of the rotavator does not conform to IS: 4468-1997. Therefore, it is recommended to looked into corrective action.
- 10.3 The hardness and chemical composition of blade 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 0.540 to 0.624 ha/h with operation speed of 3.54 to 3.66 kmph.
- 10.5 The depth of operation in dry land operation was recorded as 6 to 8 cm with soil moisture content of 14.6 to 21.7 % in sandy loam soil. The depth of puddle was recorded as 26 to 27 cm.
- 10.6 The hourly rate of wear of blade on mass basis in Dry & Wet land operations was recorded as 0.09 to 0.16 % and 0.03 to 0.16 % 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 1.68 % and 0.04 to 0.38 % respectively. The average wear of blade is considered as on higher side.



- 10.8 There is no any labeling plate on the implement. Therefore, it is recommended to provide a labeling plate along with necessary parameters.
- 10.9 No ingress of mud and/or water was found in primary and secondary reduction boxes after 41.8 h of Dry land and Wet land operations and the sealing provided on different sub-assemblies were found effective.
- 10.10 **Technical literature:**  
Parts Catalogue was provided along with the machine during the course of testing in English only. It is further recommended to bring out these manual and Operator cum Service 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 &amp; Sh. Sandeep Kumar

**11. APPLICANT'S COMMENTS**

Para no.	Our reference	Applicant's Comments
11.1	10.1	The applicant take corrective actions for standardisation of PIC Yoke according to IS: 4931-1995.
11.2	10.2	The applicant will work on recommendations on three point linkage of the rotavator as per IS: IS: 4468-1997.
11.3	10.5	As per applicant the design of rotavator will improve soon to increase operational depth.
11.4	10.8	The applicant will implement the practice of fixing labelling plate- indicating Model, Sr No, Year of Manufacturing.
11.5	10.10	As per applicant parts and operator cum service manual in Hindi & other vernacular languages as per IS 8132-1999 is in progress.