



व्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT



संख्या / No.: Imp-229/302  
माह / Month: February, 2018



**AMCO ROTAVATOR, Model: AMCO RT 225 (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

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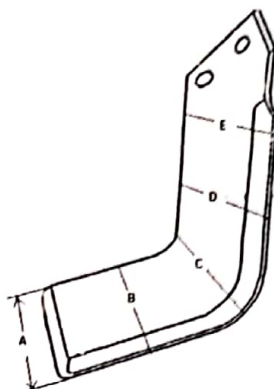


Fig 7 : DIMENSIONS FOR WEAR ANALYSIS

### 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 41.3 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 & 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 0.490 to 0.599 ha/h with operation speed of 2.68 to 2.95 kmph.
- 10.5 The depth of operation in dry land operation was recorded as 5 to 7 cm with soil moisture content of 12.4 to 21.4 % in sandy loam soil. The depth of puddle was recorded as 23 to 29 cm.
- 10.6 The hourly rate of wear of blade on mass basis in Dry & Wet land operations was recorded as 0.06 to 0.11 % and 0.01 to 0.02 % respectively.



Imp-229/302

AMCO ROTAVATOR, Model : AMCO RT 225 (Gear Drive)  
(Tractor Operated) [Commercial]

Page 16 of 19

- 10.7 The hourly rate of wear of blade on dimensional basis in Dry & Wet land operations was recorded as 0.01 to 0.37 % and as 0.00 to 0.14 % respectively.
- 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 Adulteration of mud, water with oil, was found in secondary reduction gear box after 41.3 h of field operations and the sealing provided on different subassemblies were found ineffective. Therefore, it is recommended that use sealing of reputed company
- 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, 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.