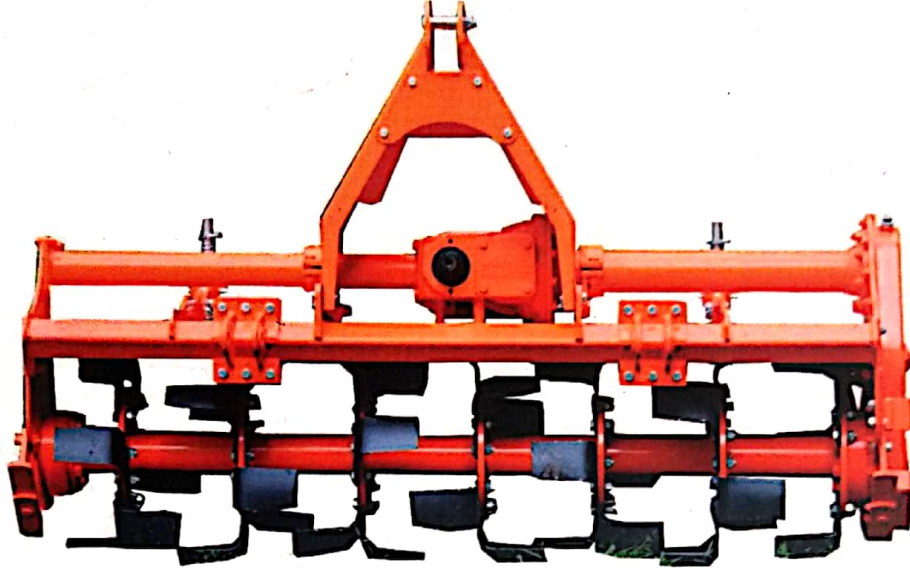




व्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT

संख्या / No.: IMP 217/289  
माह / Month: October, 2017



SHAKTIMAN ROTARY TILLER, Model: SRT 5.5 (170) / MS SP (Gear Drive)  
(Tractor Operated) [Commercial]



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 चारिअली, जिला-विश्वनाथ (असम)

BISWANATH CHARIALI: BISWANATH: ASSAM, PIN - 784 176

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

Ph. No. 03715-222094

Fax No: 03715-230358

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



### **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 40.8 h of wet land and dry land operation.

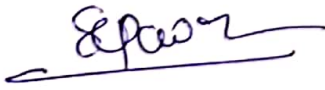


### **10. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS**

- 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 dimensions 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 was not within its desired range as per IS: 6690-1981. Therefore, it is recommended to looked into corrective action for standardization.
- 10.4 The rate of work was recorded as 0.384 to 0.432 ha/h with operation speed of 3.09 to 3.34 kmph.
- 10.5 The depth of operation in dry land operation was recorded as 8 to 9 cm with soil moisture content of 14.5 to 20.5 % in Sandy loam. The depth of puddle was recorded as 23 to 26 cm.
- 10.6 The hourly rate of wear of blade on mass basis in Wet land & Dry land operations was recorded as 0.02 to 0.03 % and 0.04 to 0.10 % respectively.
- 10.7 The hourly rate of wear of blade on dimensional basis in Wet land & Dry land operations was recorded as 0.00 to 0.05 % and as 0.00 to 0.08 % respectively.
- 10.8 Type, model, H.P. required, serial no. and year of manufacture was indicated on the labeling plate. However, it is recommended to specify size of implement.
- 10.9 No ingress of mud and/or water was found in primary and secondary reduction boxes after 40.8 h of operation, the sealing provided on different subassemblies were found effective.

**10.10 Technical literature:**

Operator manual, service manual, parts manual covered with English was submitted along with the implements. However, it is recommended to bring out the same covered with Hindi and other vernacular languages as per IS: 8132-1999

**TESTING AUTHORITY**

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

Test Report Compiled By -

Sh. Rahul Prajapathi

**11. APPLICANT'S COMMENTS**

Para no.	Our reference	Applicant's Comments
11.1	10.1	The dimension of propeller shaft inserted will be modified to confirm IS 4931-1995
11.2	10.2	Specifications of implement hitch will be modified to confirm IS 4468-1997
11.3	10.3	Shaktiman Rotary tiller blade are made of "Boron" steel which is better than Carbon & Silicon Manganese steel referred in IS 6690-1981. Boron steel is most suitable material for agriculture implement/equipment blades in terms of better strength and life. This material is most commonly used by all blade manufacture all over the world. Hardness of rotavator blade are maintain as per "Boron" steel.
11.4	10.10	Will be take necessary action as per IS 8132-1999.