

THIS TEST REPORT VALID UPTO 31/03/2026



**MASCHIO GASPARDO ROTARY TILLER, Model: VIRAT LIGHT 205
(Gear Drive) (Tractor Operated)**



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]

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.

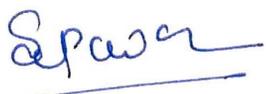
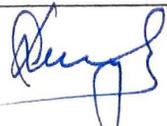
9. DEFECTS, BREAKDOWNS AND REPAIRS

No breakdown was occurred during 44.15 h of wet land and dry land operation.

10. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

- 10.1 The dimension of three point linkage (hitch pyramid) of the rotary tiller does not conform to IS: 4468-1997. This should be looked into for corrective action for standardization.
- 10.2 Dimensions of PIC yoke bore of implement do not conform to IS: 4931-1995 and therefore, it should be looked into for corrective action.
- 10.3 Chemical composition of rotor blades does not conform to IS: 6690-2002. The percentage of carbon and manganese content in composition of rotary tiller (rotavator) blade material was recorded as 0.253 and 1.204% respectively. The carbon content was on lower side and manganese content was on higher side when compared with the relevant Indian Standard. Moreover, the hardness of edge portion of rotor blades also does not conform to relevant Indian Standard. It is therefore, recommended that the material of rotary tiller (rotavator) blade should be improved and provided as per requirement of Indian Standard.
- 10.4 The rate of work was recorded 0.368 to 0.466 ha/h at forward speed of 2.50 to 2.78 kmph in dry land operation.
- 10.5 The Machines working width is not specified. It Must be specified.
- 10.6 The depth of operation in dry land operation was recorded as 6.7 to 9.4 cm with soil moisture content of 17.4 to 25.92 % in sandy loam soil and considered on lower side. The depth of puddle was recorded as 20.4 to 28.2 cm.
- 10.7 The hourly rate of wear of blade on mass basis in Wet land & Dry land operations was recorded as 0.01 to 0.04.% and 0.06 to 0.12 % respectively.
- 10.8 The hourly rate of wear of blade on dimensional basis in Wet land & Dry land operations was recorded as 0.01 to 0.09% and 0.02 to 0.10 % respectively.
- 10.9 No ingress of mud and/or water was found in primary and secondary reduction boxes after 44.15 hr of field operations and the sealing provided on different subassemblies were found effective.
- 10.10 **Technical literature:**
An Operator cum Service Manual & Parts Catalogue was provided along with the machine during the course of testing. It is further recommended to bring out these manuals in Hindi and other vernacular languages as per IS: 8132-1999.

TESTING AUTHORITY

<p style="text-align: center;">S. G. PAWAR AGRICULTURAL ENGINEER</p>	
<p style="text-align: center;">K.K. NAGLE DIRECTOR</p>	

Draft test report compiled by -

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