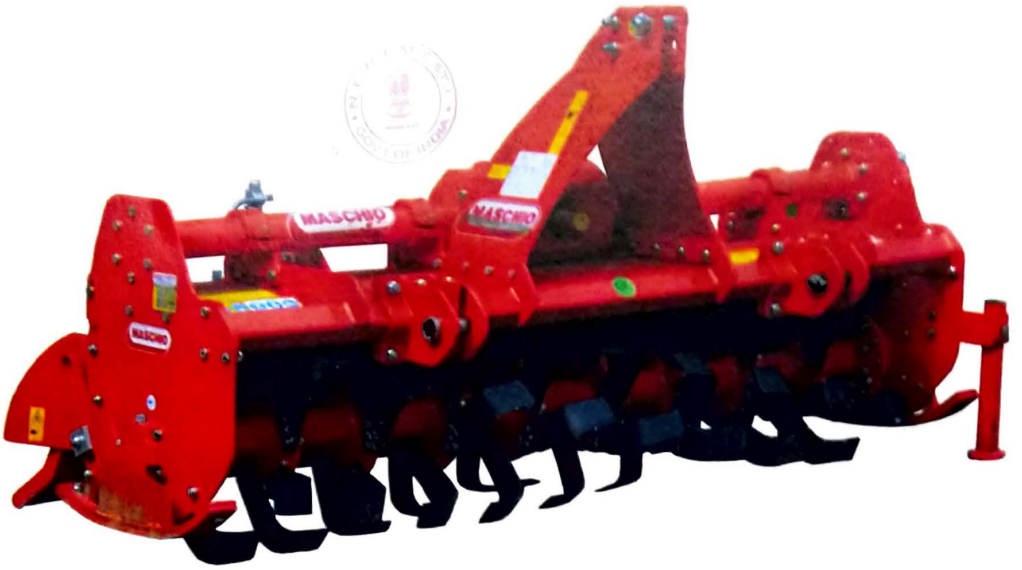
व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)
COMMERCIAL TEST REPORT (Initial)

संख्या / No.: Imp. 255/332
माह / Month: March, 2019

THIS TEST REPORT VALID UPTO 31/03/2026



MASCHIO GASPARDO ROTARY TILLER, Model: VIRAT PLUS 185
CENTRALLY MOUNTED, GEAR DRIVE, MULTI SPEED

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)
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1	2	3	4	5	6	7
v	Country of origin	--	--	--	India	Yes
vi	Year of manufacture	--	--	--	2018	Yes
vii	Chassis Serial Number	--	--	--	JII5V4957	Yes
viii	Recommended PTO speed of Prime mover(rpm)	--	--	--	Not provided	No
ix	Maximum PTO power requirement, kw	--	--	--	45-60 hp	No
8.	Category of breakdowns/ defects					
	Category of breakdowns	Category Evaluative/ Non Evaluative	Requirements		As Observed	Whether meets the requirements (Yes/ No)
i.	Critical breakdowns	Evaluative	No critical breakdown		None	Yes
ii.	Major breakdown	Evaluative	Not more than one and neither of them should be repetitive in nature.		None	Yes
iii.	Minor breakdowns	Evaluative	Not more than three and frequency of it's should not be more than two.		None	Yes
iv.	Total breakdowns	Evaluative	In no case, the total no of breakdown should exceed four, I e (1 major + 3 minor) or 4 minor breakdown		None	Yes

11. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

11.1 The dimension of three point linkage (hitch pyramid) of the rotary tiller conform to IS: 4468-1997.

11.2 Dimensions of PIC of implement does not conform to IS: 4931-1995 and therefore, it should be looked into for corrective action.

11.3 Chemical composition of rotor blades does not conform to IS: 6690-2002. The percentage of carbon and manganese content in composition of 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 rotor blades also does not conform to relevant Indian Standard. It is therefore, recommended that the material of rotavator blade should be improved and provided as per requirement of Indian Standard.

11.4 The rate of work was recorded as 0.342 to 0.372 ha/h and the speed of operation vary from 2.46 to 2.77 kmph.

11.5 In dry land operation an average depth of cut was recorded 8.2 cm which does not meet the requirement of Indian Standard and field efficiency was recorded 76.12 % which is as per requirement of Indian standards in sandy loam soil, an average depth of puddle and puddling index was recorded as 26.4 cm and 85.01 % respectively, which is as per requirement of Indian standards

11.6 The hourly rate of wear of blade on mass basis in Wet land & Dry land operations was recorded as 0.04 to 0.07 % and 0.06 to 0.18 % respectively.

11.7 The hourly rate of wear of blade on dimensional basis in Wet land & Dry land operations was recorded as 0.07 to 0.16 % and as 0.03 to 0.27 % respectively.

11.8 The maximum PTO power requirement is encrypted on labeling plate in horse power; It should be encrypted in kW.

11.9 The Machines size is not specified. It must be specified.

11.10 The Recommended PTO speed of Prime mover (rpm) is not specified it. It must be specified

11.11 No ingress of mud and/or water was found in primary and secondary reduction boxes after 39.8 hr of field operations and the sealing provided on different subassemblies were found effective.

11.12 **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

S. G. PAWAR AGRICULTURAL ENGINEER	
K.K. NAGLE DIRECTOR	

Test conducted & Draft test report compiled by - Sh. Ashish Patel & Abhishek Tiwari

12. APPLICANT'S COMMENTS

Para no	Our Reference	Applicant Comments
12.1	11.2	We will make changes in design and implement in mass production.
12.2	11.3	We will look into the process and control / improve wherever necessary.
12.3	11.5	Depth of cut can vary according to the skid adjustment, which control the depth parameters, Adjusting the skid will full fill the requirement.
12.4	11.9	New labelling plate as per BIS standard will be implemented soon in production.
12.5	11.12	We will introduce manuals in vernacular languages as per the requirement.

12.6 In response to draft test report the applicant has change recommended power requirement from 45-60 hp to 50-60 hp.