

संख्या/No.: Imp. 281/360

माह / Month: February 2020

# THIS TEST REPORT IS VALID UPTO 28/02/2027



FARMPOWER ROTARY TILLER (ROTAVATOR), MODEL: FPJPMG-160 (ROTAVATOR JYRO+ 5 FEET) MULTI SPEED, GEAR DRIVE, CENTRALLY MOUNTED



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 विश्वनाथचारिआलि, 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

Imp.281/360

## FARMPOWER ROTARY TILLER (ROTAVATOR), Model : FPJPMG-160 (ROTAVATOR JYRO+ 5 FEET) MULTI SPEED, GEAR DRIVE, CENTRALLY MOUNTED -COMMERCIAL (Initial)

1	2	3	4	5	6	7
v	Country of origin			-	India	Yes
ví	Year of manufacture			-	2019	Yes
VII	Chassis Serial Number	Evaluative	Should be provided on rotary tiller (Rotavator)	- ,	00216G06389	Yes
VIII	Recommended PTO speed of Prime mover(rpm)			-	540	Yes
ix	Maximum PTO power requirement, kW			-	36-50 HP	Yes
- 8	Category of breakdowns/ defects					
	Category of breakdowns	Category Evaluative/ Non Evaluative	Requirements		As Observed	Whether meets the requiremen ts (Yes/ No)
i	Critical breakdowns	Evaluative	No critical breakdown		None	Yes
ā	Major breakdown	Evaluative	Not more than one and neither of them should be repetitive in nature.		None	Yes
ñ	Minor breakdowns	Evaluative	Not more than three and frequency of each should not be more than two.		None	Yes
ív	Total breakdowns	Evaluative	In no case, the total no of breakdown should exceed four, i.e. (1 major + 3 minor) or 4 minor breakdowns		None	Yes

### 11. COMMENTS AND RECOMMENDATIONS

- 11.1 Dimensions of PIC and PIC yoke bore of implement does not conform to IS: 4931-1995 and it should be looked into for corrective action.
- 11.2 Chemical composition of rotor blades does not conform to IS: 6690-2002. The percentage of carbon and manganese content in composition of rotary tiller blade material was recorded as 0.274 and 1.139, 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 Shank & Edge portion of rotor blades also does not conform to relevant Indian Standard. It is therefore, recommended that the material of rotary tiller blade should be improved and shall be provided as per requirement of Indian Standard.
- 11.3 In dry land operation average depth of cut was recorded as 8.51 cm which does not meet the requirement of Indian Standard.
- 11.4 Provision for checking of oil level in secondary gear box of the rotavator was not provided.
- 11.5 Recommended power source mentioned in the application form and on the machine labeling plate is different and it should be same it should be looked into for corrective action

FARM MACHINERY TRAINING & TESTING INSTITUTE (NER), B. CHARIALI, ASSAM
[AN ISO 9001:2015 CERTIFIED INSTITUTION] (THIS TEST REPORT IS VALID UP TO 28th February 2027)

Page 18 of 21

Imp.281/360

# FARMPOWER ROTARY TILLER (ROTAVATOR), Model: FPJPMG-160 (ROTAVATOR JYRO+ 5 FEET)

(ROTAVATOR JYRO+ 5 FEET)
MULTI SPEED, GEAR DRIVE, CENTRALLY MOUNTED -COMMERCIAL (Initial)



### 11.6 Technical literature:

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**

(M.R. PATIL)
AGRICULTURAL ENGINEER

(J.P. MANDAL)
SENIOR AGRICULTURAL ENGINEER

(K.K. NAGLE)

Draft test report compiled by - Shri. M.R. Patil, Agricultural Engineer

#### 12. APPLICANT'S COMMENTS

Para No	Our Reference	Applicants Comments
12.1	11.1	Most of Dimensions of input shaft of Rotavator Conforms to IS 4931-1995. Further we will take care of does not conforms Dimensions. The Dimensions of PIC Yoke bore should be conformed & same as other Jyro+ models 8.71 to 8.74.
12.2	11.2	We have used Boron Steel Material Blade (superior than existing standard) as per upcoming new standard as per GOI letter no- 13-9/2019 M&T (I&P) dated 26.04.2019 and so, it mostly conforms the chemical composition and fully conforms the hardness requirements.
12.3	11.3	We will try to improve upon as per requirement.
12.4	11.4	We will look into it.
12.5	11.6	We are developing it and will supply with future dispatches.

FARM MACHINERY TRAINING & TESTING INSTITUTE (NER), B. CHARIALI, ASSAM
[AN ISO 9001:2015 CERTIFIED INSTITUTION] (THIS TEST REPORT IS VALID UP TO 28th February 2027)

Page 19 of 21