

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: ICE/SRFMTTI,

ANANTAPUR/2025-26/43/43/1975

माह/Month: January, 2026

THIS TEST REPORT IS VALID UP TO 31.12.2032



RANGA, 07 POWER WEEDER



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि एवं किसान कल्याण विभाग

Department of Agriculture and Farmers Welfare

दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Southern Region Farm Machinery Training and Testing Institute

ट्रैक्टर नगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आं. प्र.)

Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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ICE/SRFMTTI,
ANANTAPUR/2025-26/
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Manufacturer, (apa)

: **Chongqing Skorfi Machinery Co., Ltd.,**
No.210, Block C 25th Floor, Keyuanyi Road,
Jiulongpo District, Chongqing, **China.**

Applicant

: **Metform Engineers,**
18/B, Jigani Industrial Area, Anekal Taluk,
Bengaluru, Karnataka, India-560105.

RANGA, 07 POWER WEEDER

Report no.: **ICE/SRFMTTI, ANANTAPUR/2025-26/43/43/1975**

Month: **January**

Year: **2026**



सत्यमेव जयते

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ICE/SRFMTTI, ANANTAPUR/2025-26/ 43/43/1975	RANGA, 07 POWER WEEDER THIS TEST REPORT IS VALID UP TO 31.12.2032	COMMERCIAL (ICT)
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Type of test : COMMERCIAL (ICT)

Period of test : October, 2025 to December, 2025

Test Report No. : ICE/SRFMTTI, ANANTAPUR/2025-26/43/43/1975

Month / Year of release : January, 2026

- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The data given in this report pertain to the particular machine randomly selected by testing authority through virtual mode.
- iii) The results presented in this report do not, in anyway, attribute to the durability of the machine.
- iv) This Test Report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training & Testing Institute, Garladinne, Anantapur (A.P.).
- v) This is a report on Commercial Test of Power Weeder name “**RANGA, 07 POWER WEEDER**”. This report is valid up to **31.12.2032**, Vide Ministry's O.M. No. 13-22/2020-M&T (I&P) dated 12.12.2023.

SELECTED CONVERSIONS

Sl. No.	Units	Conversion Factor
1	Force	
	1 kgf	9.80665 N
		2.20462 lbf
2	Power	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	Pressure	
	1 psi	6.895 kPa
	1 kgf/cm ²	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm ²
	1 mm of Hg	1.3332 m-bar

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18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The rated power and maximum power were observed as 3.81 kW under natural ambient condition against the declared value of 4.0 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 554 g/kWh against the declared value of 313 g/kWh. This should be looked into for corrective action.
- 18.1.3 Back up torque of engine was observed as 8.8 % against declared value of 12%.
- 18.1.4 Max. torque was observed as 10.78 Nm against the declared value of 10.61 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 500 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.





18.3 Chemical analysis:

Chemical analysis of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

18.4 Technical literature:

Service manual and parts catalogues of trailer were provided in english only. However, it is recommended that same may be brought out in Hindi and regional languages and accordance with IS 8213:2000 (Reaffirmed 2020) for the sake of user & technical personnels.

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. Y.K. RAO SENIOR AGRICULTURAL ENGINEER
  Dr. P.P. RAO DIRECTOR	

19. APPLICANT'S COMMENTS

-Nil-