

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

संख्या/No: ICE/SRFMTTI,
ANANTAPUR/2025-26/14/14/1879
माह/Month: June, 2025

THIS TEST REPORT IS VALID UP TO 31.05.2032



MINERVA MULTITECH MARS, AGRIDON 1000 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]

Website: <http://srfmtti.dacnet.nic.in/>

E-mail: fmti-sr@nic.in

ICE/SRFMTTI, ANANTAPUR/2025- 26/14/14/1879	MINERVA MULTITECH MARS, AGRIDON 1000 POWER WEEDER THIS TEST REPORT IS VALID UP TO 31.05.2032	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Chongqing Wanggeng Machinery
Manufacturing Co. Ltd., Silong Village,
Huilongba Town, Shapingba District,
Chongqing City, China.

Applicant : M/s. Minerva Multitech Mars,
Assmt. No. 2541/2563/3, Kallukote, Nr
Presidency School, Sira- 572137,
Tumakuru District, Karnataka, India.

MINERVA MULTITECH MARS, AGRIDON 1000 POWER WEEDER

Report no.: ICE/SRFMTTI, ANANTAPUR/2025-26/14/14/1879

Month: June

Year: 2025



सत्यमेव जयते

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Website: <http://srfmtti.dacnet.nic.in/>

E-mail: fnti-sr@nic.in

Type of test : COMMERCIAL (ICT)

Period of test : April, 2025 to May, 2025

Test Report No. : ICE/SRFMTTI, ANANTAPUR/2025-26/14/14/1879

Month / Year of release : June, 2025

- 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 any way, 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 named "MINERVA MULTITECH MARS, AGRIDON 1000 POWER WEEDER". This report is valid up to 31.05.2032, Vide Ministry's O.M. No. 13-22/2020-M&T (I&P) dated 12.12.2023.

SELECTED CONVERSIONS

S. 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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1	2	3	4	5	
21	Provision for easy start of engine	Must be provided	Provided	Conforms	
22	Provision for shield/cover to prevent flying of mud and stone from rotor	Must be provided	Provided	Conforms	
23	Depth control mechanism	Must be provided	Provided	Conforms	
24	Provision for transport wheels	Must be provided	Provided	Conforms	
25	Provision for cover on exhaust	Must be provided	Provided	Conforms	
26	Direction of exhaust emission away from operator	Must be provided	Provided	Conforms	
27	Marking/labeling of machine	The labeling plate should be riveted on the body of the machine having name and address of manufacturer & applicant, country of origin, make, model, year of manufacturer, serial number, engine number, engine HP, rated rpm & SFC	Name & Address of manufacturer, Country of origin & Engine HP are not provided.	Does not conform	
28	Literature	Operator manual, service manual and parts catalogue should be provided	Not Provided	Does not conform	

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The maximum power was observed as 4.34 kW under natural ambient condition against the declared value of 4.50 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 399 g/kWh against the declared value of 380 g/kWh.
- 18.1.3 Back up torque of engine was observed as 9.75 % against declared value of 10%.
- 18.1.4 Max. torque was observed as 12.60 Nm against the declared value of 15.0 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 401 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

18.3 Hardness & Chemical analysis:

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

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18.4 Marking /labeling:

The labeling plate does not reveal all the required information. it is therefore recommended that a suitable labeling plate covering all essential components, inter alia, the following must be provided:

- i) Name and Address of manufacturer
- ii) Country of origin
- iii) Engine Hp

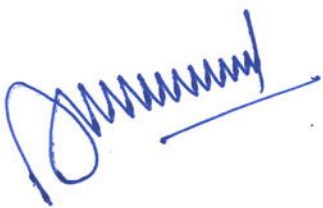
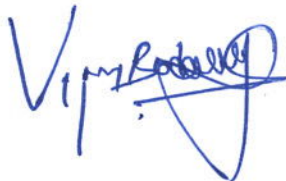

18.5 Technical literature:

User's manual is provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

The following literature should be provided.

- i) Service manual
- ii) Parts catalogue

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER
 Dr. P.P. RAO DIRECTOR	



19. APPLICANT'S COMMENTS

-NIL-

SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.)	Page 29 of 30
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