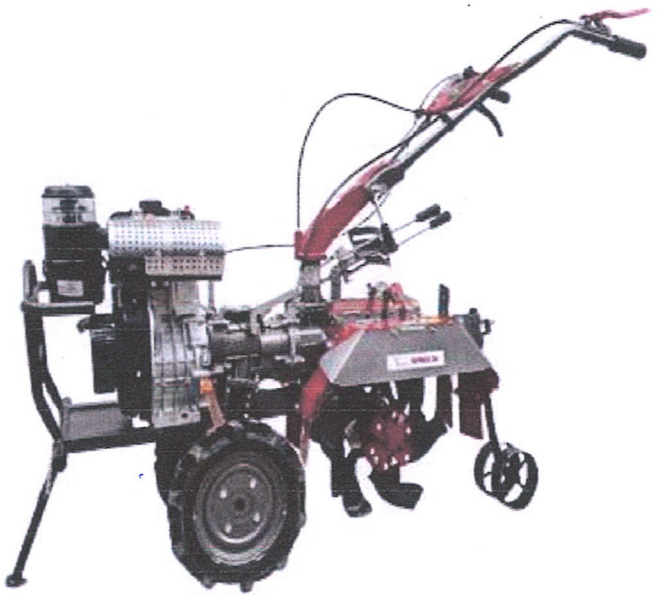
व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT(INITIAL)

संख्या/No: ICE/SRFMTTI, ANANTAPUR/2025-26/25/25/1908

माह/Month: August, 2025

THIS TEST REPORT IS VALID UP TO 31.07.2032



VARSHA SPIKE 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

Manufacturer, (apa) : M/s. Chongqing Star Technology Co. Ltd., 964#, No.2, Jiuzhou 1st Road, Baishiyi Town, High Tech Zone, Chongqing City, **China.**

Applicant : M/s. Varshaa Agro Mach. Engg. Pvt. Ltd., No. 1976-1, Iyyer Hospital Road, Singanallur, Coimbalore, Tamil Nadu –641005, India.

VARSHA SPIKE POWER WEEDER

Report no.: **ICE/SRFMTTI, ANANTAPUR/2025-26/25/25/1908**
Month: **August**
Year: **2025**

सत्यमेव जयते

Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare
Southern Region Farm Machinery Training and Testing Institute
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

Type of test : INITIAL COMMERCIAL TEST (ICT)

Period of test : July, 2025

Test Report No. : **ICE/SRFMTTI, ANANTAPUR/2025-26/25/25/1908**

Month / Year of release : August, 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 noting 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 **"VARSHA SPIKE POWER WEEDER".** This report is valid up to **31.07.2032, 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

1	2	3	4	5
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	Provided	Conforms
28	Literature	Operator manual, service manual and parts catalogue should be provided	Provided	Conforms

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

18.1.1 The maximum power was observed as 5.37 kW under natural ambient condition against the declared value of 4.5 kW.

18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 309 g/kWh against the declared value of 380 g/kWh.

18.1.3 Back up torque of engine was observed as 8.32 % against declared value of 10%.

18.1.4 Max. torque was observed as 15.23 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 363 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

18.3 Noise measurement:

Max. Noise at operator's ear level was observed as 94 dB (A), which is on higher side, therefore suitable corrective action should be taken to reduce the noise level.

18.4 Air cleaner oil pullover:

The percentage of air cleaner oil pull over was recorded as 0.13 to 0.57 % against the declaration of 0.20%. The percentage of air cleaner oil pull over was considered very high and this should be looked into for corrective action.

18.5 Chemical analysis:

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

18.6 Technical literature:

Operator's manual and parts catalogue of power weeder were supplied with test sample for reference during the test. It is however, recommended that same way be revised and brought out in Hindi & other regional languages as per IS: 8132-1999(reaffirmed 2019) for the sake of user & technical personnels.

TESTING AUTHORITY

Er. PRAMOD YADAV AGRICULTURAL ENGINEER	Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER

Dr. P.P. RAO
DIRECTOR

19. APPLICANT'S COMMENTS

We will follow the instructions and suggestions provided by the institute and adopt the same in the coming batch of production.