

व्यावसायिकपरीक्षणरिपोर्ट (प्रारंभिक)

COMMERCIAL TEST  
(ICT)

संख्या/No: Machine-509/1529

माह/Month: August, 2023

**THIS TEST REPORT IS VALID UPTO 31<sup>st</sup> JULY 2028**



**e-AGRO CARE POWER WEEDER G-500-1A**



सत्यमेव जयते

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 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.)

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Machine- 509/1529	e-AGRO CARE POWER WEEDER G-500-1A	COMMERCIAL (ICT)
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Manufacturer(**apa**) : M/s. e-Agro Care Machineries and Equipments  
Pvt. Ltd, D-45, 5-star MIDC, Shendra  
Aurangabad-431154 Maharashtra, India

Applicant : M/s. e-Agro Care Machineries and Equipments  
Pvt. Ltd, D-45, 5-star MIDC, Shendra  
Aurangabad-431154 Maharashtra, India

**e-AGRO CARE G-500-1A Power Weeder**

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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine Performance:



- 17.1.1 The maximum power was observed as 4.03kW under natural ambient condition against the declared value of 3.8 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power and at rated engine speed was recorded as 416 g/kWh against the declared value of 290 g/kWh.
- 17.1.3 Back up torque of engine was observed as 14.88% against the declared value of 10%. This should be looked into for corrective action.
- 17.1.4 Max. torque was observed as 12.66 Nm against the declared value of 15 Nm.
- 17.2 The amplitude of mechanical vibration on various assemblies of the Power Weeder was observed to the extent of 331micron, which is on higher side .In view of the above, this should be given top priority for corrective action.
- 17.3 The hardness of rotor blades does not confirm against the requirement of  $56 \pm 3$ HRC. This maybe looked into for corrective action.


### 17.4 Technical literature:

User's manual cum parts catalogue in a single booklet was provided for reference during the test. It is however, recommended that same must be revised and brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel in booklet form.

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**TESTING AUTHORITY**

D.C.MOULI AGRICULTURAL ENGINEER	
Dr. B.M NANDEDE DIRECTOR	 31/08/23

<b>18</b>			<b>Applicant Comments</b>		
					
<b>S.No</b>	<b>Reference</b>	<b>Comments</b>			
1	17.1.2	We will put up this issue with engine manufacturer			
2	17.2	We will work on it to reduce the vibration of machine in future production			
3	17.3	We will improve the heat treatment of blade in future production to meet the specified requirements.			
4	18	We will bring out the literature as per your recommendations.			