

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

संख्याNo: Machine-387/1215  
माहMonth: October, 2020  
Validity: 30.09.2025



**e-AgroCare D-90 POWER WEEDER**



भारत सरकार

**Government of India**

कृषि एवं किसान कल्याण मंत्रालय

**Ministry of Agriculture and Farmers Welfare**

कृषि, सहकारिता एवं किसान कल्याण विभाग

**Department of Agriculture, Cooperation 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.)**

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<b>Machine-387/1215</b>	<b>e-AgroCare D-90 POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. e-AgroCare Machineries & Equipments Pvt. Ltd., D- 45, Shendra MIDC, Aurangabad- 431 154, Maharashtra, **India.**

Applicant : The manufacturer

e-AgroCare D-90 POWER WEEDER

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## 17. COMMENTS & RECOMMENDATIONS

### 17.1/ Engine Performance:

- 17.1.1 The maximum power and rated power were observed 3.5 kW under natural ambient condition against the declared value of 3.1 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 414 g/kWh against the declared value of 290 g/kWh.
- 17.1.3 Max. Torque was observed as 11.48 Nm against the declared value of 12.0 Nm.
- 17.1.4 Back up torque of engine was observed as 4.17 %, against the declared value of 10 %. This should be looked into for corrective action.
- 17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 11.48 Nm & 11.02 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**
- 17.2 Max. Noise at operator's ear level was observed as 98 dB (A), which is higher than the limit specified by the ILO. Therefore, this should be looked into for corrective action
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 451microns, Which is directly concerned with Operator's Health, Safety and Comfort. Besides, it also adversely affect the useful life of the components. In view of the above, this should be taken care for corrective action.
- 17.4 The hardness of rotary blades is not conforming to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.5 Chemical composition of rotary blade are not as per the requirement of IS.6690: 1981 (Reaffirmed 2012), this should be looked into for correction action.



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17.6 The provided labeling plate should be as per the requirement IS.

**17.7 Technical literature:**

User manual and spare part catalogue of power weeder in separate booklets were supplied with the test sample for reference during the test. It is however, recommended that same may be revised and brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

**TESTING AUTHORITY:**

B.N. DIXIT AGRICULTURAL ENGINEER	
Dr. P.P. RAO DIRECTOR	

**18. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's comments
18.1	17.1.4, 17.1.5	We will bring up the issue with principal manufacturer and ensure improvement in future production.
18.2	17.2	We will work on it to reduce the noise of machine in future production.
18.3	17.3	We will work on it to reduce the mechanical vibration of machine in future production.
18.4	17.4, 17.5	We will improve the material of blade in future production.
18.5	17.6	We will bring out the labeling as per your recommendations.
18.6	17.7	We will bring out the literature as per your recommendations.