



e-Agro CARE G-105 P 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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Machine-421/1364	e-Agro care G-105 P POWER WEEDER	COMMERCIAL (ICT)
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Name & address of manufacturer : M/s. e-Agro Care Machinery & Equipment Pvt Ltd, D-45, 5-Star MIDC, Shendra, Aurangabad-431154, Maharashtra.

Applicant : M/s. e-Agro Care Machinery & Equipment Pvt Ltd, D-45, 5-Star MIDC, Shendra, Aurangabad-431154, Maharashtra.

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Report No. : **Machine-421/1364**

Month: **April**

Year: **2022**



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The rotary drive unit was dismantled and all the components were found in normal condition.

17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power & rated power under natural ambient were observed as 4.4 kW and 2.7 kW respectively against the declared value of 4.5 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 386 g/kWh against the declared value of 350 g/kWh. This may be looked into for corrective action.
- 17.1.3 Max. Torque was observed as 12.60 Nm against the declared value of 12 Nm.
- 17.1.4 Back up torque of engine was observed as 1.89 %, against the declared value of 10%. This should be looked into for corrective action.
- 17.2 Max. Noise at operator's ear level was observed as 98 dB (A), Therefore necessary corrective action to reduce noise level should be taken.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 310 microns, which is on higher side therefore corrective action to dampen of the vibration should be taken.
- 17.4 The hardness of rotary blade does not conform to the requirement of IS 6690:1981 (Reaffirmed 2017). This should be looked into for corrective action.
- 17.5 A carbon content of Chemical composition of rotary blade does not conform to the requirement of IS 6690:1981 (Reaffirmed 2017). Therefore This should be looked into for corrective action.
- 17.6 Air cleaner oil pull over was observed as nil to 0.82%, which is on higher side. Therefore , necessary corrective action should be taken
- 17.7 The provided labeling plate should be as per the requirement of the IS.

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17.7 Technical literature:

Users manual, spare parts catalogs and service manual of power weeder were supplied with test sample for reference during the test. It is however, recommended that same may be revised and brought out in Hindi & other regional languages in booklet form as per IS 8132:1999 (Reaffirmed 2019) for the sake of user & technical personnel.



TESTING AUTHORITY:

B.N.DIXIT AGRICULTURAL ENGINEER	
P. C. MESHARAM SENIOR AGRICULTURAL ENGINEER	
Dr. P. P. RAO DIRECTOR	

18. Applicants comments

Para No.	Our Ref. No.	Applicants comments
18.1	17.1.2	We will put up this issue with engine manufacturer.
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 vibration of machine in future production.
18.4	17.4	We will improve the treatment on heat treatment of blade in future production to confirm as per IS standards
18.5	17.5	We will improve the material of blade in future production
18.6	17.6	We will improve it in future production
18.7	17.7	We will bring out the literature as per your recommendations.