

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT

(ICT)

TEST REPORT IS VALID UPTO 30/04/2028

संख्या No: Machine-490/1499

माह Month: May, 2023

Validity: 30.04.2028



e-AGRO POWER WEEDER G-105-FQSD-A



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 (आ. प्र.)

Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)

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Tele.: 08551-286441

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| Machine- 490/1499 | e-AGRO POWER WEEDER G-105-FQSD-A | 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(apa) : M/s. e-Agro care Machineries and equipments Pvt. Ltd, D-45, 5-star MIDC, Shendra Aurangabad-431154 Maharashtra, India

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Big end bearings:

| Bearing No. | Clearance, (mm) | | Max. permissible clearance limit,(mm) | |
|-------------|-----------------|-------|---------------------------------------|-------|
| | Diametrical | Axial | Diametrical | Axial |
| 1. | 0.05 | 0.18 | 0.25 | 0.80 |

Valve, guides and timing

gears:

Observation

Any marked sign of overheating of valves : None

Pitting of seat/faces of valves : Normal

Any visual damage to the teeth of timing gears : None

Clearance between valve guide and valve stem (mm)

- Intake valve : 0.06

- Exhaust valve : 0.07

16.2 **Clutch:**

16.3 **Transmission gears:**

All the gears of the transmission system were found in normal working condition.

16.4 **Rotary drive unit:**

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

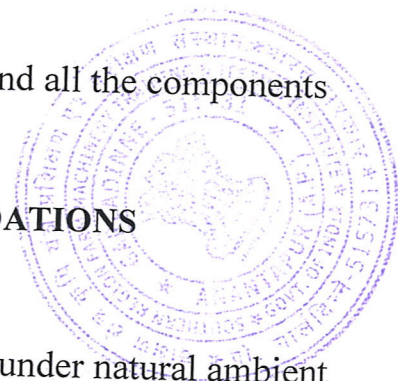
17. COMMENTS & RECOMMENDATIONS

17.1 **Engine Performance:**

17.1.1 The maximum power was observed as 3.4 kW under natural ambient condition against the declared value of 3.8 kW.

17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 498 g/kWh against the declared value of 350g/kWh.

17.1.3 Max. torque was observed as 10.78 Nm against the declared value of 12 Nm.



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17.2 The amplitude of mechanical vibration on various assemblies of the Power Weeder was observed to the extent of 327 micron, which is on higher side.



17.3 The hardness of rotor blades does not confirm against the requirement of $56 \pm 3\text{HRC}$. This maybe looked into for corrective action.

17.4 Chemical composition of rotor blades does not confirm to the IS. Therefore this may be looked into for corrective action.

17.5 Technical literature:

User's manual cum parts catalogue is 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.

TESTING AUTHORITY

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|---|--|
| D.C.MOULI AGRICULTURAL ENGINEER |  |
| P. KAMALABAI SENIOR AGRICULTURAL ENGINEER/DIRECTOR(I/C) |  |

18. Applicant Comments

| S.No | Para No | Particular |
|------|---------------------------|--|
| 1 | 17.1.1, 17.1.2, 17.1.3 | We will put up the issue with engine manufacturer |
| 2 | 17.2 | We will work to reduce the vibration of machine in future production. |
| 3 | 17.3,17.4 | We will make changes in material and heat treatment on blades to confirm as per IS standards |