



**AGRIMATE AM-RT-5P 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

ट्रेक्टर नगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आं. प्र.)

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

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<b>Machine-356/1176</b>	<b>AGRIMATE AM-RT-5P POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Chongqing Weima Agricultural Machinery Co. Ltd., 3# Yuxang Road, Area B, Luohuang Industry Zone, Jiangjin Dist., Chongqing – 402 283, **China.**

Applicant : M/s. Ratnagiri Impex Pvt. Ltd., Annapurna House, #1/1G 7<sup>th</sup> Cross, New Guddadahalli, Mysore Road, Bangalore-5600 26, Karnataka, **India.**

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Report No. : Machine-356/1176      Month: June      Year: 2020



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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine performance:



- 17.1.1 The maximum power and rated power were observed as 3.4 kW under natural ambient condition against the declared value of 4.4 kW & 3.0 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 419 g/kWh against the declared value of 395 g/kWh. This should be looked into for corrective action.
- 17.1.3 Max. Torque was observed as 9.34 Nm against the declared value of 11.0 Nm. This should be looked into for corrective action.
- 17.1.4 Back up torque of engine was observed as 5.30 % .
- 17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 9.34 Nm & 8.87 Nm respectively, while further loading, sudden drop of engine rpm was observed.**
- 17.2 Max. Noise at operator's ear level was observed as 89 dB (A).
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 440 microns, 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 conforms to the requirement of IS 6690:1981 (Reaffirmed 2012).
- 17.5 Except the silicon, all the contents of the chemical composition of rotary blade conforms to the requirement of IS 6690:1981. This should be looked into for corrective action.

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

17.7 **Technical literature:**

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

**TESTING AUTHORITY:**

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

**18. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's comments
18.1	17.1.5	We will inform to our principal manufacturer to take corrective action against this.
18.2	17.3	We will take corrective action in future supplies
18.3	17.5	We will improve blade chemical composition for our future supplies
18.4	17.6	Point is noted, we will work on it
18.5	17.7	As per your suggestion we will search for the possibilities to implement it.