



**S RAJA R-108 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.)

**[An ISO 9001:2015 CERTIFIED INSTITUTE]**

Website: <http://srfmtti.dacnet.nic.in/>

E-mail: [fmti-sr@nic.in](mailto:fmti-sr@nic.in)

Tele./FAX: 08551-286441

<b>Machine-401/1229</b>	<b>S RAJA R-108 POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Chongqing Haogeng Industrial Trade co. Ltd. No. 8, Jingsheng Road, Jingkou, Shapingba District, Chongqing, **China.**

Applicant : M/s. Raja Enterprises, DR. Saron Wali Gali, Mandi, Ahmedgarh, Dist. Sangrur- 148 021, Punjab, **India.**

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Report No. : Machine-401/1229

Month: November

Year: 2020



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**15.3 Transmission gears:**

All the Gears and sprockets of the transmission system were found in normal condition.

**15.4 Rotary drive unit:**

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

**16. COMMENTS & RECOMMENDATIONS**

**16.1 Engine performance:**

16.1.1 The maximum power and rated power were observed as 5.2 kW respectively under natural ambient condition against the declared value of 6.4 kW.

16.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 356 g/kWh against the declared value of 350 g/kWh.

16.1.3 Max. Torque was observed as 16.6 Nm against the declared value of 20 Nm.

16.1.4 Back up torque of engine was observed as 1.8 % against the declared value of 10.0%. This should be looked into for corrective action.

16.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 16.6 Nm & 15.4 Nm respectively, while further loading, sudden drop of engine rpm was observed.**


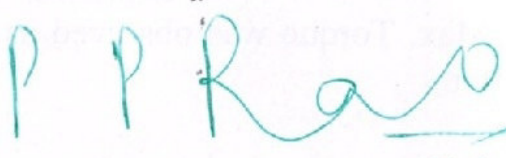
**16.2** Max. Noise at operator's ear level was observed as 89 dB (A).

**16.3** The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 360 microns. Which is on higher side. Therefore necessary corrective action to dampen the vibration should be taken.

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- 16.4 The hardness of rotary blades conforms to the requirement of IS 6690:1981 (Reaffirmed 2012).
- 16.5 Chemical analysis of rotary blades conforms to the requirement of IS 6690:1981 (Reaffirmed 2012).
- 16.6 The provided labeling plate should be as per the requirement IS.
- 16.7 **Technical literature:**  
Operator manual cum 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 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	

**17. APPLICANT'S COMMENTS**

"We have gone through the test report and we will make all possible necessary corrective action in future production'.