



**AUTOPRINT PWT55G 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

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

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<b>Machine-400/1228</b>	<b>AUTOPRINT PWT55G POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Autoprint Machinery  
Manufacturers Pvt. Ltd., "Kaanchan"  
# 9, North Huzur Road, Coimbatore-  
641 018, Tamil Nadu.

Applicant : The manufacturer

### AUTOPRINT PWT55G POWER WEEDER

Report No. : Machine-400/1228 Month: November

Year: 2020



सत्यमेव जयते

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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine performance:

17.1.1 The maximum power and rated power were observed as 3.2 kW respectively under natural ambient condition against the declared value of 3.0 kW.

17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 434 g/kWh against the declared value of 440 g/kWh.

17.1.3 Max. Torque was observed as 8.9 Nm against the declared value of 8.0 Nm.

17.1.4 Back up torque of engine was observed as 5.6 %. against the declared value of 12.0%.

17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 8.9 Nm & 8.2 Nm respectively, while further loading, sudden drop of engine rpm was observed.**

17.2 Max. Noise at operator's ear level was observed as 82 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 420 microns, which is on higher side. Therefore necessary corrective action to dampen the vibration should be taken.

17.4 The hardness of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). Therefore, this should be looked into for corrective action.

17.5 Chemical analysis of rotary blades does conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.



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

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**17.7 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	

**18. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's comments
18.1	17.1.4 & 17.1.5	We will take up the problem with the engine supplier; analyze the cause for the same to arrive at required counter measures.
18.2	17.3	For the high amplitude of vibration at most of the machine assemblies will be analyzed and effective counter measures will be taken.
18.3	17.4	Required corrective actions will be taken to ensure hardness of rotor blades.
18.4	17.5	The rotor blades chemical composition, with regard to carbon, silicon non-conformance. We will implement countermeasures to ensure the respective elements, % by weight confirms to limits.
18.5	17.7	Regarding the technical literatures, they will be revised and brought-out in Hindi and in other regional languages as per IS 8132-1999 (Reaffirmed 2004)