



**GT-SHAKTI GT-RC 7500 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-363/1183</b>	<b>GT-SHAKTI GT-RC 7500 POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. DVR Overseas,  
1706, Lee-Wai Commercial Building,  
1-3 Hart Avenue, Tsim Sha Tsui,  
Kowloon, **Hong Kong**.

Applicant : M/s. G.T. Agro Industries,  
Foundry Nagar, Hathras Road, Near  
Canara Bank, Agra-282 006, **India**.

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Report No. : Machine-363/1183

Month: July

Year: 2020



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<b>Machine- 363/1183</b>	<b>GT-SHAKTI GT-RC 7500 POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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<b>Valve, guides and timing gears:</b>	<b>Observation</b>
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Any marked sign of overheating of valves	: None
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Pitting of seat/faces of valves	: None
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Any visual damage to the teeth of timing gears	: None
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Clearance between valve guide and valve stem (mm)	
- Intake valve	: 0.09
- Exhaust valve	: 0.09

**15.2 Transmission gears:**

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

**15.3 Rotary drive unit:**

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

### 16. COMMENTS & RECOMMENDATIONS

**16.1 Engine Performance:**

16.1.1 The maximum power and rated power were observed as 4.6 & 3.4 kW under natural ambient condition against the declared value of 5.1 kW.

16.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 310 g/kWh against the declared value of 300 g/kWh.

16.1.3 Max. Torque was observed as 13.8 Nm against the declared value of 18.0 Nm.

16.1.4 Back up torque of engine was observed as 5.34 %, against the declared value of 10%.

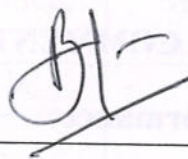

16.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 13.80 Nm & 13.30 Nm respectively, while further loading, sudden drop of engine rpm was observed.**

**16.2** Max. Noise at operator's ear level was observed as 90 dB (A).

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- 16.3** The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed on higher side and to the extent of maximum 372 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.
- 16.4** The hardness of rotary blades conforms to the requirement of IS 6690:1981 (Reaffirmed 2012).
- 16.5** The chemical composition of rotary blade does not conform to the requirement of IS 6690:1981. This should be looked into for corrective action.
- 16.6** The provided labeling plate should be as per the requirement IS.
- 16.7 Technical literature:**  
The user manual of power weeder was 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:**

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

**17. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's comments
17.1	16.1.5	We will take corrective action in future production
17.2	16.3	We will take corrective measures for reducing the vibration of the machine
17.3	16.5	We will make changes in blade material for our future products
17.4	16.6	We will search for possibilities
17.5	16.7	We will modify the manual according to your suggestions