



GT SHAKTI GT-RC 8600 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]

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Machine- 364/1184	GT SHAKTI GT-RC 8600 POWER WEEDER	COMMERCIAL (ICT)
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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-364/1184

Month: July

Year: 2020



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- 16.2 Clutch:**
Any marked wear in clutch friction plate : None
Thickness of clutch plate, (mm) : 2.70
Condition of clutch release bearing. : Normal
Condition of pilot bearing : Normal
Condition of pressure plate : Normal
Presence of oil and water in clutch housing : None

- 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 working condition.

17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 5.7 & 4.8 kW under natural ambient condition against the declared value of 6.6 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 286 g/kWh against the declared value of 300 g/kWh.
- 17.1.3 Max. Torque was observed as 22.73 Nm against the declared value of 24.0 Nm.
- 17.1.4 Back up torque of engine was observed as 5.43 %, against the declared value of 10 %. This should be looked into for corrective action.
- 17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 22.73 Nm & 22.27 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**

- 17.2** Max. Noise at operator's ear level was observed as 93 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 327 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 The chemical composition of rotary blade is not as per 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 manual of power weeder was supported 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 ENGINEERDr. 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 corrective action in future production
18.2	17.3	We will take corrective measures for reducing the vibration of the machine
18.3	17.5	We will make changes in blade material for our future products
18.4	17.6	We will search for possibilities
18.5	17.7	We will modify the manual according to your suggestions