



SHRACHI 6D3 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-327/1119	SHRACHI 6D3 POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer : M/s. Chongqing Shineray Agriculture Machinery Co. Ltd., No. 8, Shineray Road, Hangu Town, Julongpo Dist., Chongqing, **CHINA.**

Applicant : M/s. BTL EPC LTD,
No.2, Jessore Road, Dum Dum,
Kolkata - 700 028, West Bengal, **INDIA.**

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Report No. : Machine-327/1119 Month: February

Year: 2020



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Machine- 327/1119	SHRACHI 6D3 POWER WEEDER	COMMERCIAL (ICT)
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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

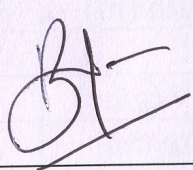
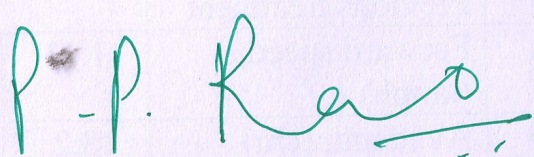
- 17.1.1 The maximum and rated power were observed as 5.1 kW under natural ambient condition against the declared value of 4.7 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 277 g/kWh against the declared value of 285 g/kWh.
- 17.1.3 Max. Torque was observed as 13.8 Nm against the declared value of 18 Nm. This should be looked into for corrective action.
- 17.1.4 Back up torque of engine was observed as 1.77 %. 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 13.83 Nm & 13.36 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 87 dB (A).
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 699 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 does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.5 Chemical composition of rotor blades does not conform to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Although the labeling plate is pasted on tool bar. However, it is advised to rivet the labeling plate at a suitable place of the machine as well as it should be as per the requirement of IS.

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17.7 Technical literature:

The Owner's manual and parts catalogue of power weeder and engine 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:

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

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
18.1	17.1.3	We would intimate the same information to the engine manufacturer to improve the same.
18.2	17.1.4	We would intimate the same information to the engine manufacturer to improve the same.
18.3	17.1.5	We would intimate the same information to the engine manufacturer to improve the same.
18.4	17.3	We would implement some sort of anti – vibration measures in the machine to rectify the same.
18.5	17.4	We would improve the hardness of blades to meet the required standard.
18.6	17.5	We would improve the chemical composition of blades to meet the required standard.
18.7	17.6	We would work on the same to meet the required IS Standard.