



VARSHA SW 9 DEL 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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Machine- 376/1202	VARSHA SW 9 DEL POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer (apa) : M/s. Varshaa Agro Mach. Engg. Pvt. Ltd.,
No. 1976-1, Iyyer Hospital Road, Singanallur,
Coimbatore-641 005, Tamil Nadu, India.

Applicant : The manufacturer

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Report No. : Machine-376/1202 Month: September

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 5.5 kW under natural ambient condition against the declared value of 5.8 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 379 g/kWh against the declared value of 300 g/kWh.
- 17.1.3 Max. Torque was observed as 18.05 Nm against the declared value of 18.5 Nm.
- 17.1.4 Back up torque of engine was observed as 2.67 %, 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 18.05 Nm & 16.88 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), against the max. limit of ILO as 90 dB (A). This should be looked into for corrective action.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 358 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 Chemical composition of rotary blades does not 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 of IS.

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17.7 Technical literature:

The Operation manual and parts catalogue of power weeder and engine in a single booklet was 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

"We have noticed all your valuable recommendations and we will make all possible necessary changes in future production.