



VARSHA SW 524 PE POWER WEEDER



भारतसरकार

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 (आ. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine- 385/1213	VARSHA SW 524 PE 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 manufacture

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Report No. : Machine-385/1213 Month: October Year: 2020



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17. COMMENTS & RECOMMENDATIONS

17.1 Engine performance:

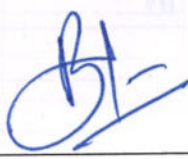

- 17.1.1 The maximum power and rated power were observed as 3.4 & 1.9 kW respectively under natural ambient condition against the declared value of 4.0 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 429 g/kWh against the declared value of 320 g/kWh. This should be looked into for corrective action.
- 17.1.3 Max. Torque was observed as 9.57 Nm against the declared value of 12.0 Nm. This should be looked into for corrective action.
- 17.1.4 Back up torque of engine was observed as 5.16 % against the declared value of 10.0 %. 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 9.57 Nm & 8.87 Nm respectively, while further loading, sudden drop of engine rpm was observed.**
- 17.2 Max. Noise at operator's ear level was observed as 86 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 460 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 Silicon content of 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.

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17.7 Technical literature:

User manual cum 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

"No specific comment was received by the applicant".