



NEPTUNE NWD - 186 FA 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 (आ. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine- 296/1051	NEPTUNE NWD - 186 FA POWER WEEDER	COMMERCIAL (ICT)
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**Manufacturer : M/s. Zhejiang Yongli Machinery Co. Ltd.,
Shangyun Village, Hengjie Town,
Luqiao District, Taizhou City,
Zhejiang, China.**

**Applicant : M/s. Neptune Packaging Pvt. Ltd.,
78, Janki Nagar, Near Jain Mandir,
Indore, Madhya Pradesh - 452 001, India**

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Report No. : Machine-296/1051 Month: August Year: 2019



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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

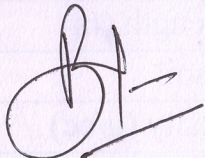
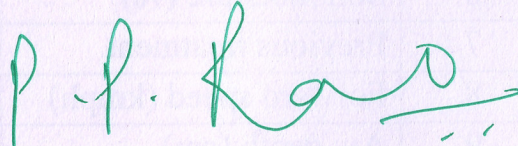
- 17.1.1 The maximum power and rated power were observed as 6.7 kW under natural ambient condition against the declared value of 6.8 kW and 6.7 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 290 g/kWh against the declared value of 295 g/kWh.
- 17.1.3 Max. Torque was observed as 22.27 Nm against the declared value of 19 Nm.
- 17.1.4 Back up torque of engine was observed as 4.40 %, against the declared value of 10%. This should be looked into for corrective action.
- 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 on higher side and to the maximum extent of 420 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 All the constituents except silicon content of chemical composition of rotary blades conforms to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Labeling plate provided should be as per the requirement of IS.

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17.7 Technical literature:

The Operation manual and users manuals 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

"All the comments are well noted and we assure to implement the suggestions mentioned therein in our future supplies of products".