

THIS TEST REPORT IS VALID UPTO 30.06.2031



**MAA SANTOSHI ENGINEERING, TGP-WDR-CQ24  
POWER WEEDER**



भारतसरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि एवं किसान कल्याण विभाग

Department of Agriculture and Farmers Welfare

दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Southern Region Farm Machinery Training and Testing Institute

ट्रैक्टरनगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आं. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

Website: <http://srfmtti.dacnet.nic.in/>

Machine- 608/1665	MAA SANTOSHI ENGINEERING, TGP-WDR-CQ24 POWER WEEDER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 30.06.2031	

Manufacturer, (apa) : M/s. Xian Far East Import & Export Co. Ltd.,  
No.34 South Hancheng Road, Xian, **China**.

Applicant : M/s. Maa Santoshi Engineering, Near Agrawal  
Bhawan, Main Road Jaipatna, Dist - Kalahandi,  
Odisha-766018, India.

**MAA SANTOSHI ENGINEERING, TGP-WDR-CQ24  
POWER WEEDER**

Report No.: Machine-608/1665

Month: July

Year: 2024



सत्यमेव जयते

**Government of India  
Ministry of Agriculture and Farmers Welfare  
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Machine-  
608/1665

**MAA SANTOSHI ENGINEERING, TGP-WDR-CQ24  
POWER WEEDER**

**COMMERCIAL  
(ICT)**

**THIS TEST REPORT IS VALID UP TO 30.06.2031**

Type of test : COMMERCIAL (ICT)  
Period of test : April, 2024 to June, 2024  
Test Report No. : **Machine-608/1665**  
Month / Year of release : July, 2024

- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The data given in this report pertain to the particular machine selected randomly through virtual mode by testing authority.
- iii) The results presented in this report do not, in anyway, attribute to the durability of the machine.
- iv) This Test Report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training & Testing Institute, Garladinne, Anantapur (A.P.).
- v) This is a report on Commercial Test of Power Weeder named "**MAA SANTOSHI ENGINEERING, TGP-WDR-CQ24 POWER WEEDER**". This report is valid up to **30.06.2031**. Vide Ministry's **O.M. No. 13-22/2020-M&T (I&P) dated 12.12.2023**

**SELECTED CONVERSIONS**

S. No.	Units	Conversion Factor
1	<b>Force</b>	
	1 kgf	9.80665 N
		2.20462 lbf
2	<b>Power</b>	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	<b>Pressure</b>	
	1 psi	6.895 kPa
	1 kgf/cm <sup>2</sup>	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm <sup>2</sup>
	1 mm of Hg	1.3332 m-bar

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## 18. COMMENTS & RECOMMENDATIONS



### 18.1

#### Engine performance:

#### 18.1.1

The maximum power was observed as 1.74 kW under natural ambient condition against the declared value of 2.2 kW respectively.

#### 18.1.2

Specific fuel consumption of engine corresponding to maximum power was recorded as 544 g/kWh respectively against the declared value of 420 g/kWh.

#### 18.1.3

Max. Torque was observed as 5.13 Nm against the declared value of 6.5 Nm.

#### 18.1.4

Back up torque of engine was observed as 12.25 % against declared value of 10 %.

### 18.2

The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 238 microns, which is higher than the limit specified by the ILO. Therefore, necessary action to dampen the vibration should be taken in to account.

### 18.3

#### Marking/Labeling

The labeling plate does not reveal all the required information. It is therefore recommended that a suitable labeling plate covering all essential components inter alia, the following must be provided:

- i) Make,
- ii) Rated rpm
- iii) Country of origin
- iv) Year of manufacturer
- v) Specific fuel consumption, (g/kWh)

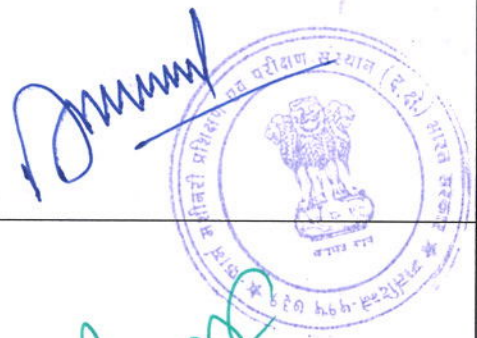

### 18.5

#### Technical literature:

Instruction manual and parts catalogue of power weeder and engine in single booklet were not 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.

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**TESTING AUTHORITY**

Er. PRAMOD YADAV AGRICULTURAL ENGINEER	
Dr. B.M. NANDEDE DIRECTOR	

**19. APPLICANT COMMENTS**

We have gone through your comments and recommendations, we will do the corrective action on particular comments in our future products.