

THIS TEST REPORT IS VALID UP TO 31.12.2031



BALAJI, PW-9HP POWER WEEDER



सत्यमेव जयते

भारत सरकार

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

ट्रेक्टर नगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आ. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

Machine- 711/1811	BALAJI, PW-9HP POWER WEEDER THIS TEST REPORT IS VALID UP TO 31.12.2031	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Chongqing Wanggeng Machinery
Manufacturing Co. Ltd, Silong Village,
Huilongba Town, Shapingba District,
Chongqing City, **China**.

Applicant : M/s. Balaji Trailor Works
Gangavathi Road, Sindhanur, Raichur Dist,
Karnataka 584128.

BALAJI, PW-9HP POWER WEEDER

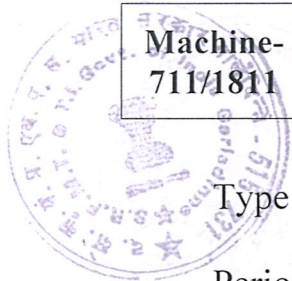
Report no.: **Machine-711/1811** Month: **January** Year: **2025**



Government of India
Ministry of Agriculture and Farmers Welfare
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Machine- 711/1811	BALAJI, PW-9HP POWER WEEDER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 31.12.2031	

Type of test : COMMERCIAL (ICT)

Period of test : November, 2024 to January, 2025

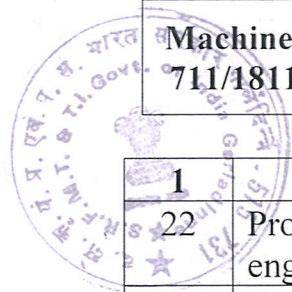
Test Report No. : Machine-711/1811

Month / Year of release : January, 2025

- 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 randomly selected 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 "**BALAJI, PW-9HP POWER WEEDER**". This report is valid up to **31.12.2031**, 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	Force	
	1 kgf	9.80665 N
		2.20462 lbf
2	Power	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	Pressure	
	1 psi	6.895 kPa
	1 kgf/cm ²	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm ²
	1 mm of Hg	1.3332 m-bar



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1	2	3	4	5
22	Provision for easy start of engine	Must be provided	Provided	Conforms
23	Depth control mechanism	Must be provided	Provided	Conforms
24	Provision for transport wheels	Must be provided	Provided	Conforms
25	Provision for cover on exhaust	Must be provided	Provided	Conforms
26	Direction of exhaust emission away from operator	Must be provided	Provided	Conforms
27	Marking/labeling of machine	The labeling plate should be riveted on the body of the machine having name and address of manufacturer & applicant, country of origin, make, model, year of manufacturer, serial number, engine number, engine HP, rated rpm & SFC.	Address of manufacturer, Country of origin, Rated RPM, SFC are not provided.	Does not conform
28	Literature	Operator manual, service manual and parts catalogue should be provided.	Not Provided	Does not conform

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The maximum power was observed as 6.84 kW under natural ambient condition against the declared value of 6.7 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 398 g/kWh against the declared value of 300 g/kWh.
- 18.1.3 Back up torque of engine was observed as 25.15 % against declared value of 9.5 %.
- 18.1.4 Max. torque was observed as 22.64 Nm against the declared value of 18.2 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the weeder was observed to the extent of 580 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

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18.3 Chemical analysis:

The Chemical analysis of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

18.4 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:

- Address of manufacturer
- Country of origin
- Rated RPM
- Specific fuel consumption (g/kWh)


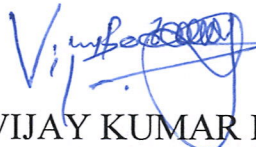

18.5 Technical literature:

User's manual is not provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

The following literature should be provided.

- Service manual
- Parts catalogue

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	



19. APPLICANT COMMENTS

Reference	Comments
1	We have noted the comments and recommendations and forwarded to our principle manufacturer, we will look into for corrective action as suggested by you.