

THIS REPORT IS VALID UPTO 31.10.2028



R.K .MANUFACTURES (WALSON) RK-PW-105P 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

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

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine- 535/1573	R.K.MANUFACTURES (WALSON)	COMMERCIAL
	RK-PW-105P POWER WEEDER	
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Manufacturer : M/S Chongqing Diligence General Machinery Co Ltd. Add: Building 1, No, 1 Kangchao Rd , Huaxi , Dis Chongqing ,China

Applicant : M/s. R.K. Manufactures, Nirmal industries area, Survey No.30, NH. 8/B, Vavdi , Rajkot, (Gujarat)-360004

R.K .MANUFACTURES (WALSON) RK-PW-105P POWER WEEDER
 Report No. : Machine-535/1573 Month: November Year: 2023




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Ministry of Agriculture and Farmers Welfare
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Machine-535/1573	R.K.MANUFACTURES (WALSON)	
	RK-PW-105P POWER WEEDER	
	THIS REPORT IS VALID UPTO 31.10.2028	COMMERCIAL

Type of test : INITIAL COMMERCIAL TEST

Period of test : 11.10.2023 to 29.11.2023

Test Report No. : Machine-535/1573

Month / Year of release : November, 2023

- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The results presented in this report do not in any way attribute to the durability of the machine.
- iii) 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.).
- iv) This is a report on Commercial Test of Power Weeder named " **R.K.MANUFACTURE RK-PW-105P Power Weeder**". **This report is valid up to 31.10.2028, Vide Ministry's O.M. No. 13-24/2018-M&T (I&P) dated 19.09.2018.**

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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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power was observed as 3.80 kW, under natural ambient condition against the declared value of 4.20 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 434 g/kWh against the declared value of 340 g/kWh.
- 17.1.3 Max. Torque was observed as 10.50 Nm against the declared value of 12 Nm.
- 17.1.4 Back up torque of engine was observed as 4.68 %, against the declared value of 7 %.

17.2 The amplitude of mechanical vibration on most of the assemblies of the power weeder was observed up to the maximum extent of 346 microns, which is on higher side. Therefore corrective action to reduce the vibration should be taken up.

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

17.4 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:

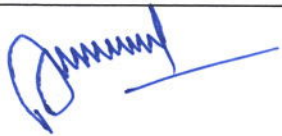


1. Make
2. Max. power (kW)
3. Specific fuel consumption (g/kWh)

17.5 Technical literature:

Operators manual and parts catalogue of power weeder were not supplied with 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 2019) for the sake of user & technical personnel in booklet form.

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TESTING AUTHORITY:

 PRAMOD YADAV AGRICULTURAL ENGINEER	 D.C. MOULI AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	

18. APPLICANT'S COMMENTS

Reference No.	Comments
17.2	We shall take top priority to reduce the amplitude of mechanical vibration.
17.4	We shall make the labelling plate with all required information like specific fuel consumption g/kWh.
17.5	We shall print the User's manual cum Parts catalogue in hindi and other regional languages as per IS 1832:1999.