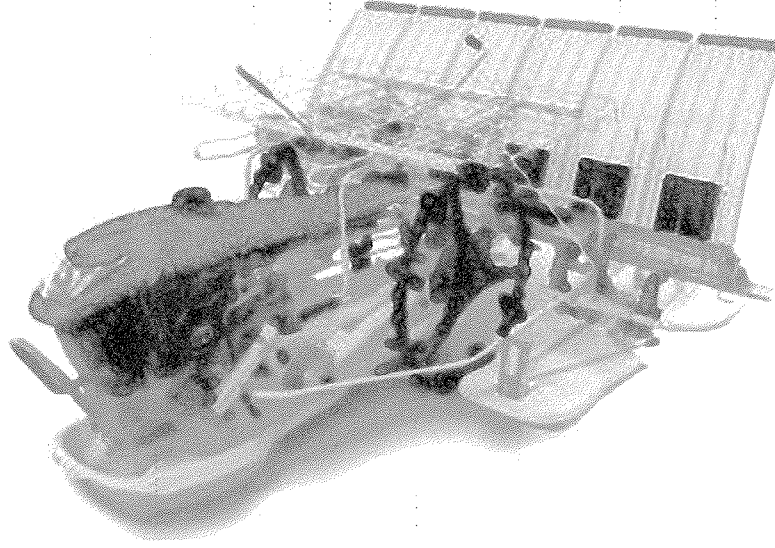


THIS TEST REPORT IS VALID UPTO 30.06.2031



MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER



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.)

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E-mail: fmti-sr@nic.in

Tele: 08551-286441

Machine- 621/1678	MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 30.06.2031	

Manufacturer, (apa) : Wuhan Wubota Machinery Co., Ltd,
Hengdashiji Square Heping Avenue,
Wuchang District, Wuhan CN54
430000, Hubei **China**.

Applicant : Mahindra & Mahindra Ltd., Plot No.2,
Industrial Area No.1, Pithampur, Dist.-
Dhar-454775, Madhya Pradesh, India.

MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER

Report No.: **Machine-621/1678**

Month: **July**

Year: **2024**



सत्यमेव जयते

Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare
Southern Region Farm Machinery Training and Testing Institute
Tractor Nagar, Garladinne – 515 731, District: Anantapur (A.P.)
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Machine-621/1678	MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 30.06.2031	

Type of test : COMMERCIAL (ICT)
 Period of test : January, 2024 to March, 2024
 Test Report No. : **Machine-621/1678**
 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 directly submitted by applicant.
 - iii) The results presented in this report do not, in any way, attribute to the durability of the machine.
 - iv) This report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training and Testing Institute, Garladinne, Anantapur (A.P.).
 - v) Initially the firm has submitted the test sample under confidential test, but vide requesting letter dated **01.07.2024**, has requested to convert the nature of test from confidential to commercial.
- VI This is a report on Commercial Test of Rice transplanter named "**MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER**". 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	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

Machine- 621/1678	MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 30.06.2031	

16 SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

16.1 Engine Performance:

- 16.1.1 The maximum power observed as 3.20 kW under natural ambient condition against the declared value of 3.5 kW.
- 16.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 550 g/kWh against the declared value of 300 g/kWh.
- 16.1.3 Max. torque was observed as 9.57 Nm against the declared value of 10.5 Nm.
- 16.1.4 Back up torque of engine was observed as 6.93 %.

16.2 Field Test:

The transplanter was operated in varying field conditions for a total period of 26.0 hours for transplanting Sangamitra seeds, Raana variety of paddy seedlings. The results are summarized as under:

- Av. forward speed of operation was observed as 2.86 to 2.96 kmph.
- Av. area covered was recorded as 0.359 to 0.388 ha/h.
- Av. depth of transplanting was recorded as 4.3 to 5.0 cm.
- The spacing between rows was recorded as 29.8 to 30.2 cm.
- Av. number of plants per hill was recorded as 4.3 to 6.0.
- Spacing between hills was recorded as 20.7 to 21 cm.
- Av. total number of hills in 5 m row length was recorded as 23.4 to 24.
- Av. number of hills per sq. m. was recorded as 20.
- Av. percentage of missed hills was recorded as Nil to 1.0.
- Av. percentage of floating seedlings was recorded as Nil to 1.0.
- Av. percentage of buried seedlings was recorded as Nil to 1.0.
- Av. percentages of damaged seedling were recorded as Nil to 1.0.
- The total percentage of transplanting faults was recorded as 1.0 to 3.0
- The consumption of nursery trays was recorded as 182 to 200 numbers per hectare.
- The hourly fuel consumption was recorded as 1.10 to 1.20 l/h and fuel required for planting of one-hectare area was recorded as 3.07 to 3.16 l/ha.

- 16.2.1 The quality of work was observed as smooth during entire transplanting operation. The overall performance of the machine was found satisfactory.

Machine- 621/1678	MAHINDRA, PADDY WALKER 6RO RICE TRANSPLANTER	COMMERCIAL (ICT)
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16.3 Components/assembly inspection:

16.3.1 The transplanter and engine were dismantled after 37.02 hours of operation and wear of critical components were observed within the limits.

16.3.2 The main gear box, planting box, planting arm drive mechanism and Bearings were dismantled after completion of field operation and found in satisfactory working condition.

16.4 Safety provisions:

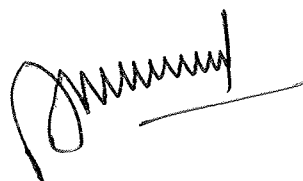
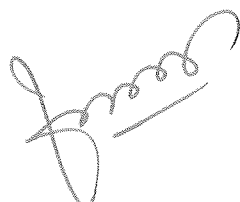
The machine is provided with various safety provisions while working in the field or moving on the road as mentioned in the **clause 5.10** of this test report.

16.5 The notations for all controls, Instrument panel and labeling plate and safety provisions are written on the machine in foreign language. This should be looked into for the sake of Indian farmers/users.

16.6 Technical literature:

Operator's manual, service manual and parts catalogue of Rice Transplanter and engine in separate booklet were supplied with the Rice Transplanter for reference during the test. It is however, recommended that same may be revised in Hindi and other regional languages as per IS 8132: 1999 (Reaffirmed 2004) for the sake of user & technical personnel.

TESTING AUTHORITY

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

17. APPLICANT COMMENTS

-Nil-