

**THIS TEST REPORT IS VALID UP TO 31.03.2031**



**MAHINDRA, MAHAVATOR HD 1.7 M ROTAVATOR**



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, Garlandinne- 515 731, District: Anantapur (A.P.)  
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Tele. 08551-286441

IMP-392/1606	MAHINDRA, MAHAVATOR HD 1.7M ROTAVATOR	COMMERCIAL (ICT)
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**MAHINDRA, MAHAVATOR HD 1.7 M**

Report No. : IMP-392/1606

Month: April

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**  
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Manufacturer, (apa) :

**Manufacturer Address 1**  
M/S. Mahindra & Mahindra Limited, Farm Equipment Sector,  
Tractor Division, Akurli Road, Kandivali (East)  
Mumbai - 400 101. (Maharashtra)

**Manufacturer Address 2**  
M/S. Mahindra & Mahindra Limited, FES (Farm Division)  
Near Bidar T Junction, Mahindra Nagar, Zaheerabad - 502220  
Medak Dist. (Telangana)

**Manufacturer Address 3**  
M/S. Mahindra & Mahindra Limited, Swaraj Division, Plant  
2, PO Landran, SAS Nagar, Mohali – 140307 (Punjab)

**Manufacturer Address 4**  
M/S. Mahindra & Mahindra Limited, Farm Machinery  
Division, C/o SAL Automotive Ltd. Kakrala Road, Nabha –  
147201, District Patiala, Punjab (India)

**Manufacturer Address 5**  
M/S. Mahindra & Mahindra Limited, Farm Machinery  
Division. C/o M/S. Mungi Engineers Pvt. Ltd.  
S.N. 191, Mogdumpally Road, Zaheerabad – 502220,  
Dist. - Medak, Telangana (India)

**Manufacturer Address 6**  
M/S. Mahindra & Mahindra Limited, Farm Machinery  
C/o SAL Automotive Ltd. 188/I KIADB belur industrial area,  
Near Roti Ghar hotel, Belur Dharwad-580011

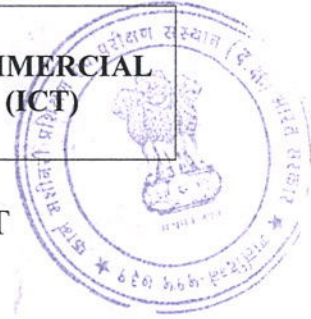
**Manufacturer Address 7**  
M/S. Mahindra & Mahindra Limited, Farm Machinery  
Division, C/o JBM Industries Ltd. Plot no. 268 & 269, Sector-  
24, Faridabad, 121005

**Manufacturer Address 8**  
M/S. Mahindra & Mahindra Limited. Farm Machinery  
Division, M.I.T.R.A Agro Equipment's Private, Plot D-43  
MIDC, Ambed, Nashik, Maharashtra -422010.

Name of the applicant : The manufacturer

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COMMERCIAL  
(ICT)



Type of test : INITIAL COMMERCIAL TEST

Period of test : 11.12.2023 to 04.01.2024

Test Report No. : IMP-392/1606

Month /Year of release : April, 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 randomly selected for test by the testing authority by virtual mode.
- 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) This is a report on commercial test of rotavator named "MAHINDRA, MAHAVATOR HD 1.7M". This report is valid up to 31.03.2031 , 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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### 13. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS




- 13.1 No ingress of dust and water/mud in primary reduction gear box, secondary reduction gear box, and rotary axle bearing cap was observed.
- 13.2 Breather cap, oil level dipstick in primary and secondary gearbox are provided.
- 13.3 The chemical composition of rotor blades does not meet, in full, the requirement of IS: 6690-1981. This should be looked into for corrective action.
- 13.4 Safety device is provided in rotavator propeller shaft.
- 13.5 Provision for parking stand is provided in rotavator.
- 13.6 Adequacy of literature:**  
Operator's manual, service manual and parts catalogue of the Rotavator in English were provided in single booklet form for reference during the test. However, this should be brought out in Hindi and other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

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#### 14. APPLICANT'S COMMENTS

SNo.	Clouse No.	Parameter	SRFMTTI Observation	Mahindra and Mahindra Comments.
1.	6.2 and 13.3	Chemical composition of blade material.	Some parameter dose not conform as per IS 6690.	Our Blade material is" Boron." And IS-6690 for only carbon steel and Silicon Manganese Steel not for Boron. "As per ministry communication No.13-9/2019 M&T (I&P) Dated 26.04.2019." The manufacturer will use the Boron (28 MnCrB5) for Rotavator Blade material.  We are using the same material.
2	13.7	Adequacy of literature:	-	Will take care in production machines

#### TESTING AUTHORITY

 <b>Er. PRAMOD YADAV</b> AGRICULTURAL ENGINEER	 <b>Er. P. KAMALABAI</b> SENIOR AGRICULTURAL ENGINEER
 <b>Dr. B.M. NANDEDE</b> DIRECTOR	

