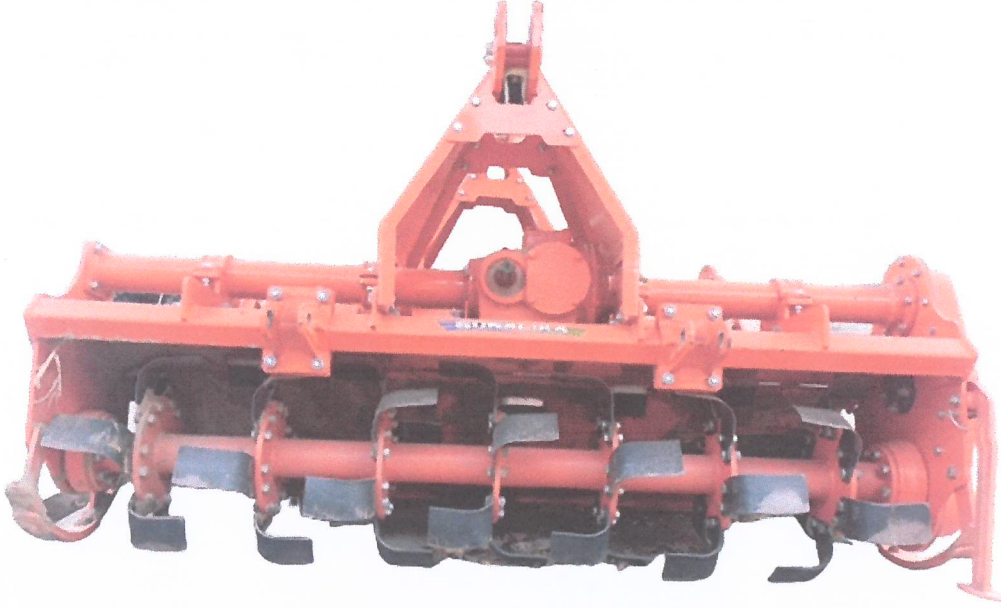


प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट
INITIAL COMMERCIAL TEST REPORT

संख्या/No. CSIR/CMERI/FMTTC/2024/068
माह/Month: OCTOBER, 2024

THIS TEST REPORT VALID UP TO : 30th SEPTEMBER, 2031



SONALIKA INDUSTRIES
(A Unit of International Cars & Motors Ltd.)

ROTAVATOR
(MODEL: SLCHPMSR-6)



Government Of India



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र
Farm Machinery Training and Testing Centre
सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान
CSIR - Central Mechanical Engineering Research Institute
महात्मा गांधी एवेन्यू, दुर्गापुर
Mahatma Gandhi Avenue, Durgapur
पश्चिम बंगाल - 713209
West Bengal - 713209
Website: <https://cmeri.res.in>

E-mail: fmttc.cmeri@gmail.com

Telephone: 9434592007 / 7001361295

Fax: +91-343-2546745

Name of Machine : Rotavator
Type : Tractor Mounted
Make : SONALIKA INDUSTRIES
 (A Unit of International Cars & Motors Ltd.)
Model : SLCHPMSR-6
 SONALIKA INDUSTRIES
Name and address of Manufacturer : (A Unit of International Cars & Motors Ltd.)
 Village - Chak Gujran, Jalandhar Road,
 Hoshiarpur -146022 (Punjab) INDIA
Name and address of Applicant : SONALIKA INDUSTRIES
 (A Unit of International Cars & Motors Ltd.)
 Village - Chak Gujran, Jalandhar Road,
 Hoshiarpur -146022 (Punjab) INDIA
Test Conducted at : Farm Machinery Training and Testing
 Center, CSIR – Central Mechanical
 Engineering Research Institute, M.G.
 Avenue, Durgapur- 713209, West Bengal,
 INDIA, & CMERI- Centre of Excellence for
 Farm Machinery, Near GNE College, Gill
 Road, Ludhiana - 141006, Punjab, INDIA



THIS TEST REPORT VALID UP TO: 30th SEPTEMBER 2031
 [vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]

Report No.: CSIR/CMERI/FMTTC/2024/068 Month: October Year: 2024

CSIR - Central Mechanical Engineering Research Institute,
Durgapur - 713209
(W.B.), INDIA

Report prepared by

Report verified by

Type of Test : Initial Commercial Test
 Period of Test : August 2024- September 2024
 Test Report No. : **CSIR/CMERI/FMTTC/2024/068**
 Month and Year : October 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 pertains to the particular machine submitted by the applicant for test.
- iii. The results presented in this report do not in any way attribute to durability of the machine.
- iv. The report should not be reproduced in part or full without prior permission of the Director, CSIR- Central Mechanical Engineering Research Institute, M G Avenue, Durgapur -713209 (West Bengal)
- v. **This test report is not covered under BIS certification. Therefore, the manufacturers cannot market the Rotavator with ISI mark, only on the strength of this report.**
- vi. This report cannot be used for legal purposes.

SELECTED CONVERSIONS

1.	<u>Force</u>	1 kgf	= 9.80665 N = 2.20462 lbf
2.	<u>Power</u>	1 HP	= 1.01387 Metric HP (Ps) = 745.7 W
		1 Ps	= 735.5 W
3.	<u>Pressure</u>	1 psi	= 6.895 kPa
		1 kgf/sq.cm	= 98.067 kPa = 735.56 mm of Hg
		1 bar	= 100 kPa = 10 N/sq.cm.
		1 mm of Hg	= 1.3333 m-bar
4.	<u>Area</u>	1 ha	= 10000m ² = 2.471 Acres

Report prepared by

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Report verified by

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4. SPECIFICATION

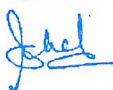
4.1. General

Type of machine	:	Rotavator
Make	:	SONALIKA INDUSTRIES (A Unit of ICML)
Model	:	SLCHPMSR-6
Serial No.	:	R&D PRT-0009
Name and Address of manufacturer	:	SONALIKA INDUSTRIES (A Unit of International Cars & Motors Ltd.) Village - Chak Gujran, Jalandhar Road, Hoshiarpur, Punjab
Year of manufacture	:	2024
Country of origin	:	INDIA
Type of blade	:	L-TYPE
Working width, mm	:	1829
Recommended Prime mover size	:	40-55HP

4.2. Details of prime mover

Tractor used during test	:	
Make	:	SONALIKA
Model	:	DI-60 (12+12, 2WD)
Engine Sr. No.	:	195244D
Max. PTO power kW	:	38.03 kW (51 hp)
SFC (g/kW – hr)	:	249

Report prepared by



Report verified by



12. CRITICAL TECHNICAL SPECIFICATIONS
(Vide Ministry's communication F. No. 9-1/2019 M&T (I&P) dated 20.08.2019)

Sl. No.	Parameters	Specification	Observation	Remarks
1	Working width (mm)	1200 (Min.)	1829	Conforms
2	Type of blade	C/L/J shape as per demand Hatchet Blade	L shape	Conforms
3	Thickness of blade (mm)	7-8 (Min.)	7	Conforms
4	No. of blades	30 (Min.)	42	Conforms
5	Total number of flanges	5 (Min.)	7	Conforms
6	Number of blades per flange	6 (Max.)	6	Conforms
7	Outer Diameter of rotor shaft, mm	75 - 90	89.70	Conforms
8	Rotor diameter, including flange and blade mounted on flange, mm	425 (Min.)	480	Conforms
9	Side drive	Gear drive/chain drive (optional)	Gear drive	Conforms
10	Depth control mechanism	Arc shaped skid on both side of rotavator	Provided	Conforms
11	Material of blades	Boron (28MnCrB5)/High Carbon Steel of grade EN42/EN45/EN47	Boron steel	Conforms
12	Hardness of blade material, HRC	38 (Min.)	54	Conforms
13	Safety clutch/device (shear bolt) in PTO drive shaft	Must be provided	Provided	Conforms
14	Rotavator stand	Must be provided	Provided	Conforms
15	Guard over propeller shaft	Must be provided	Provided	Conforms
16	Sheet metal	AS36/IS 2062	IS 2062	Conforms
17	Marking/labeling of machine	The labeling plate should be riveted on the body of machine having Name and address of manufacturer, County of origin, Make, Model, Year of manufacture, Serial number, Type, Size, required size of prime mover (kW)	Provided	Conforms
18	Literature	Operator manual, service manual and parts catalogue should be provided	Parts Catalogue is provided	Conforms

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