

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)
COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: Machine-634/1695
माह/Month: August, 2024

THIS TEST REPORT IS VALID UP TO 31.07.2031



SHIVA AGRO, SAE -1965 BRUSH CUTTER



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

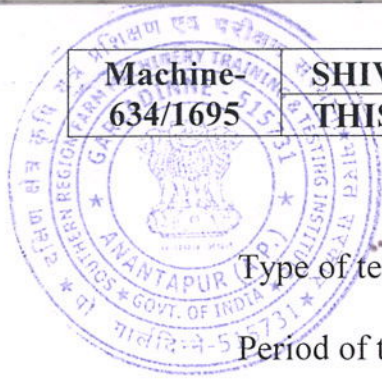
ट्रैक्टर नगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आं. प्र.)

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

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Machine-634/1695	SHIVA AGRO, SAE -1965 BRUSH CUTTER	COMMERCIAL (ICT)
THIS REPORT IS VALID UP TO 31.07.2031		

Type of test : COMMERCIAL (ICT)
Period of test : July, 2024 to August, 2024
Test Report No. : **Machine-634/1695**
Month / Year of release : August, 2024

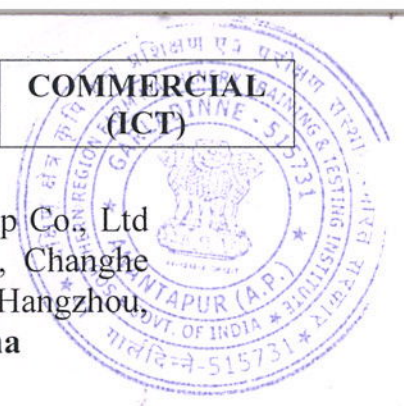
- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The data given in this report pertain to the particular machine randomly selected by testing authority .
- iii) The results presented in this report do not in any way 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 Brush Cutter named "**SHIVA AGRO, SAE -1965 BRUSH CUTTER**". This report is valid up to **31.07.2031**, 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- 634/1695	SHIVA AGRO, SAE -1965 BRUSH CUTTER
	THIS REPORT IS VALID UP TO 31.07.2031

COMMERCIAL
(ICT)



Manufacturer, (apa) : M/s. Hangzhou Joins Imp & Exp Co., Ltd
Room 809, No-1451, Binxing , Changhe
Street Binjiang, District Hangzhou,
310052 Zhejiang Province ,China

Name of Applicant : M/S. Shiva Irrigation System
SY NO, 121/7, Mudigere, Kasara Hobli
Taluk, Tumkur-572216.

SHIVA AGRO, SAE -1965 BRUSH CUTTER

Report No.: **Machine-634/1695**

Month: **August**

Year: **2024**



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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ANANTAPUR (A.P.)

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Machine- 634/1695	SHIVA AGRO, SAE -1965 BRUSH CUTTER	COMMERCIAL (ICT)
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Valve, guides and timing gears : Observation

Any marked sign of overheating of valves : None

Pitting of seat/faces of valves : None

Any visual damage to the teeth of timing gears : None

Clearance between valve guide and valve stem (mm):

- Intake valve : None

- Exhaust valve : None

15.2 Clutch:

No noticeably defects found.

15.3 Transmission system:

All the gears of the transmission system were found in normal condition.

16. COMMENTS & RECOMMENDATIONS

16.1 The maximum power was observed as 1.31 kW under natural ambient condition against the declared value of 1.3 kW.

16.2 The safety provisions, as mentioned at para 5.14, have been provided by the applicant for safety aspect of operators.

16.3 Noise measurement:

Max. Noise at operator's ear level was observed as 95 dB (A), which is on higher side, therefore suitable corrective action should be taken to reduce the noise level.

16.4 Mechanical vibration:

The equivalent mechanical vibration on engine cover was observed to the extent of 228 micron. This should be looked into for dampening the vibration.




16.5 A fuel on/off knob may be considered for providing in the fuel system of engine.

16.6 Adequacy of literature supplied with the machine:

The Operator's manual cum parts catalogue of brush cutter and engine in English was supplied with the brush cutter for reference during the test. It is however, recommended that same may be revised and brought out as per IS: 8132- 1999 (Reaffirmed 2004) for the sake of user & technical personnel.

Machine- 634/1695	SHIVA AGRO, SAE -1965 BRUSH CUTTER	COMMERCIAL (ICT)
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TESTING AUTHORITY

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

17. APPLICANT COMMENTS

Para. No	Comments
16.3	We will look on it reduce noise in future lot.
16.4	We will work on to reduce the vibration of the machine.
16.6	We will provide the Operator's manual cum parts catalogue of brush cutter as per IS: 8132- 1999 (Reaffirmed 2004) in future products.

ANNEXURE-I

FIELD PERFORMANCE RESULTS

Attachments used : Nylon rope
Place of test : Institute
Usage : For cutting the lawn grass

Sl. No.	Parameters	No. of tests		
		I	II	III
1	Date of test	02.07.2024	03.07.2024	04.07.2024
2	Net test duration, (h)	6.50	7.00	7.00
3	Intensity of grass	Dense		
4	Av. height of grass, (cm)	168	195	190
5	Av. no. of grass per m ²	482	1799	1729
6	Av. mass of grass per m ² , (kg)	0.355	0.380	0.363
7	Area harvested, (ha/h)	0.095	0.022	0.062
8	Av. time required for one ha, (h)	10.52	45.45	16.00
9	Av. mass of grass harvested, (kg/h)	17.55	19.15	18.27
10	Av. fuel consumption:			
	- l/h	1.09	1.20	1.10
	- l/ha	11.47	54.54	12.24