

THIS TEST REPORT IS VALID UPTO 30.09.2031



SOUTHERN AGRO ENGINE PVT LTD, VV GW7 POWER WEEDER



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]

Machine- 673/1747	SOUTHERN AGRO ENGINE PVT LTD., VV GW7 POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s Southern Agro Engine Private Limited, #119, Bangalore High road, Pappanchatram, Thiruvallur, Chennai – 600 123, Tamil Nadu.

Applicant : The manufacturer

SOUTHERN AGRO ENGINE PVT LTD, VV GW7 POWER WEEDER

Report no.: Machine-673/1747

Month: October

Year: 2024

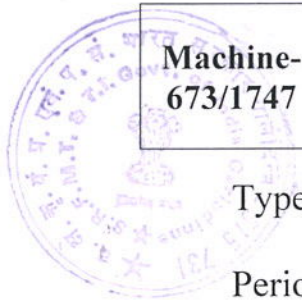


सत्यमेव जयते

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Ministry of Agriculture and Farmers Welfare
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Machine-673/1747	SOUTHERN AGRO ENGINE PVT LTD., VV GW7 POWER WEEDER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 30.09.2031	

Type of test : COMMERCIAL (ICT)
Period of test : 07.10.2024 to 24.10.2024
Test Report No. : Machine-673/1747
Month / Year of release : 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 pertain to the particular machine randomly selected by testing authority.
- iii) The results presented in this report do not, in anyway, 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 Power Weeder named "**SOUTHERN AGRO ENGINE PVT LTD., VV GW7 POWER WEEDER**". This report is valid up to **30.09.2031**, 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

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18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The maximum power was observed as 5.30 kW under natural ambient condition against the declared value of 5.20 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 390 g/kWh against the declared value of 374 g/kWh.
- 18.1.3 Back up torque of engine was observed as 6.71 % against declared value of 10%.
- 18.1.4 Max. torque was observed as 14.94 Nm against the declared value of 13.6 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 254 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

18.3 Air cleaner oil pullover:

The percentage of air cleaner oil pull over was recorded as 0.21 to 0.41 % against the declaration of 0.20%. The percentage of air cleaner oil pull over was considered very high and this should be looked into for corrective action.

18.4 Marking /labeling:

The labeling plate does not reveal all the required information. It is therefore recommended that a suitable labeling plate covering all essential components, interlaid, the following must be provided:

- i) Country of origin,
- ii) Year of manufacturer,
- iii) Rated RPM
- iv) Specific fuel consumption, (g/kWh)

18.5 Technical literature:




User's manual is not provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

The following literature should be provided.

- i) Service manual
- ii) Parts catalogue

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TESTING AUTHORITY

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

19. APPLICANT COMMENTS

Para No.	Comments
18.1.3	We will improve in future product.
18.2	To overcome this vibration problem, we will Provide vibration damper to arrest the vibration.
18.3	We will work on to improve the performance of carburetor.
18.4	We will provide all the parameters in future product.
18.5	We will provide the service manual, parts catalogue of user and technical personnel in booklet form as per IS 8132:199.