

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: ICE/SRFMTTI,

ANANTAPUR/2025-26/03/03/1858

माह/Month: April, 2025

THIS TEST REPORT IS VALID UP TO 31.03.2032



KIRLOSKAR OIL ENGINES LTD., MIN T9 DLX 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]

E-mail: fmti-sr@nic.in

Website: <http://srfmtti.dacnet.nic.in/>

ICE/SRFMTTI, ANANTAPUR/2025-26/ 03/03/1858	KIRLOSKAR OIL ENGINES LTD., MIN T9 DLX POWER WEEDER THIS TEST REPORT IS VALID UP TO 31.03.2032	
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Manufacturer (apa) : M/s. Champ energy ventures Pvt. Ltd.,
Plot No. 7, Gate No. 399/1/2/3/B, Village Bhare,
Tal.- Mulshi, Dist. Pune-412 115, Maharashtra,
India.

Applicant : M/s. Kirloskar Oil Engines Ltd.,
Laxmanrao Kirloskar Road, Khadki,
Pune - 411 003, Maharashtra, **India.**

KIRLOSKAR OIL ENGINES LTD, MIN T9 DLX POWER WEEDER

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सत्यमेव जयते

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	THIS TEST REPORT IS VALID UP TO 31.03.2032	

Type of test : COMMERCIAL(ICT)

Period of test : April, 2025


Test Report No. : **ICE/SRFMTTI, ANANTAPUR/2025-26/03/03/1858**

Month / Year of release : April, 2025

- The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- The data given in this report pertain to the particular machine randomly selected by testing authority at applicant's site.
- The results presented in this report do not in any way attribute to the durability of the machine.
- 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.).
- This is a report on Commercial Test of Power Weeder named **"KIRLOSKAR OIL ENGINES LTD, MIN T9 DLX POWER WEEDER"**. This report is valid up to **31.03.2032**, 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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1	2	3	4	5
22	Provision for Shield / cover to prevent flying mud & stone from rotor	Must be provided	Provided	Conforms
23	Depth control mechanism	Must be provided	Provided	Conforms
24	Provision for transport wheels	Must be provided	Provided	Conforms
25	Provision for cover on exhaust	Must be provided	Provided	Conforms
26	Direction of exhaust emission away from operator	Must be provided	Away from the operator	Conforms
27	Marking/labeling of machine	The labeling plate should be riveted on the body of the machine having name and address of manufacturer & applicant, country of origin, make, model, year of manufacturer, serial number, engine number, engine HP, rated rpm & SFC	Provided	Conforms
28	Literature	Operator manual, service manual and parts catalogue should be provided	Provided	Conforms

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The maximum and rated power were observed as 6.35 kW respectively under natural ambient condition against the declared value of 6.27 kW respectively.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 298 g/kWh against the declared value of 310 g/kWh.
- 18.1.3 Max. Torque was observed as 18.52 Nm against the declared value of 18 Nm.
- 18.1.4 Back up torque of engine was observed as 9.78 %, against the declared value of 11%.

- 18.2 Max. Noise at operator's ear level was observed as 96 dB (A), which is on higher side as per ILO. Therefore, this should be looked into for corrective action.



ICE/SRFMTTI,
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18.3

The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 295 microns, which is directly concerned with Operator's Health, Safety and Comfort. Besides, it also adversely affects the useful life of the components. In view of the above, this should be taken care for corrective action.

18.4 Chemical analysis:

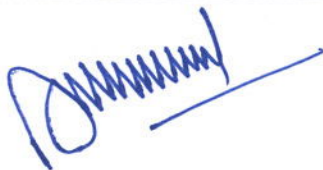


The Chemical composition of rotor blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

18.5 Technical literature:

Operator manual cum parts catalogue of power weeder and engine in single booklet was supplied with the test sample for reference during the test. It is however, recommended that same may be revised and bought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

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TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	

19. APPLICANT COMMENTS

Sr. No.	Our Reference	Applicants Comment
19.1	18.2	We Will take corrective action to reduce the noise level at operator ear level.
19.2	18.3	We Will take corrective action to reduce the vibration.
19.3	18.4	We will take corrective action to meet the chemical composition as per IS 6690:1981.
19.4	18.6	We will provide the manuals in Hindi & other regional language as per IS standard.