

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

संख्या/No: Machine-599/1656

COMMERCIAL TEST REPORT (INITIAL)

माह/Month: June, 2024

THIS TEST REPORT IS VALID UP TO 31.05.2031



INDOXEN, INDOXEN 850D POWER WEEDER



सत्यमेव जयते

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- 599/1656	INDOXEN, INDOXEN 850D Power Weeder	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Changzhou Kewei Machinery Co., Ltd,
Qiajin Vallage, Qianhuang Town, Wujin
District, Jiangu, **China.**

Applicant : M/s. A.R. Agro Equipments, Door No:
45/1149, Near Cheruvannur High School,
Kolathara P.O, Kozhikode, Kerala-673655,
India.

INDOXEN, INDOXEN 850D POWER WEEDER

Report no.: Machine-599/1656

Month: **June**

Year: **2024**



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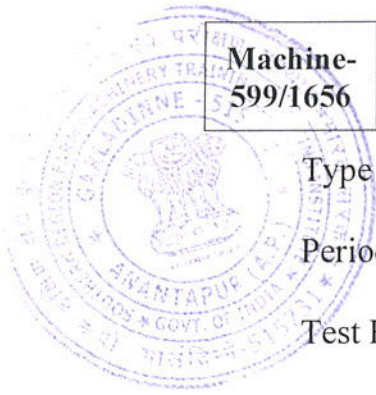
Government of India
Ministry of Agriculture and Farmers Welfare
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SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.)	Page 2 of 32
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Machine-599/1656	INDOXEN, INDOXEN 850D Power Weeder	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 31.05.2031	

Type of test : COMMERCIAL (ICT)
Period of test : March, 2024 to June, 2024
Test Report No. : **Machine-599/1656**
Month / Year of release : June, 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 Power Weeder named **"INDOXEN, INDOXEN 850D Power Weeder"**. This is report is valid up to **31.05.2031**. 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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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power was observed as 6.84 kW under natural ambient condition against the declared value of 5.9 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 277 g/kWh against the declared value of 330 g/kWh.
- 17.1.3 Back up torque of engine was observed as 3.42% against declared value of 10 %.
- 17.1.4 Max. torque was observed as 26.02 Nm against the declared value of 22.00 Nm.

17.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 981 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.




- 17.3 Max. Noise at operator's ear level was observed as 99 dB which is on higher side. Therefore, necessary action to reduce the vibration should be taken in future
- 17.4 The chemical analysis of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.
- 17.5 The safety provisions, as mentioned at **Para 16**, should have been provided by the applicant for safety aspect of operators.
- 17.6 The labeling plate does not reveal all the required information. it is therefore recommended that a suitable labeling plate covering all essential components, inter alia, the following must be provided:
- Rated rpm.
 - Specific fuel consumption (g/kWh).

17.7 Technical literature:

User's manual cum parts catalogue provided but not in booklet form for reference during the test. It is recommended that same must be revised in booklet form and brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel in booklet form.

Machine- 599/1656	INDOXEN, INDOXEN 850D Power Weeder	COMMERCIAL (ICT)
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TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. P. KAMALABAI SENIOR AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	

19. APPLICANTS COMMENTS

Sl. No	Para No	Particular
1	17.1.1	We will take corrective action in engine production.
2	17.1.2	We will take corrective action in engine production.
3	17.1.3	We will take corrective action in engine production.
4	17.1.4	We will take corrective action in engine production.
5	17.2	We will take corrective action in production.
6	17.3	We will take corrective action in production to reduce noise and vibration.
7	17.4	We will take corrective action in production to meet IS 6690:1981.
8	17.5	We will take corrective action in production.
9	17.6	We will take corrective action in production.
10	17.7	We will take corrective action in production to meet IS 8132:1999.