

THIS TEST REPORT IS VALID UP TO 31.01.2032



**KAMCO, KAMCO DELTA 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

ट्रेक्टर नगर, गार्लदिन्ने-515 731, जिला: अनंतपुर (आ. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

Machine- 733/1835	KAMCO, KAMCO DELTA POWER WEEDER THIS TEST REPORT IS VALID UP TO 31.01.2032	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s Kerala Agro Machinery Corporation Ltd, Athani-683585, Ernakulam District, Kerala.  
Applicant : The manufacturer

### KAMCO, KAMCO DELTA POWER WEEDER

Report no.: Machine-733/1835 Month: February Year: 2025



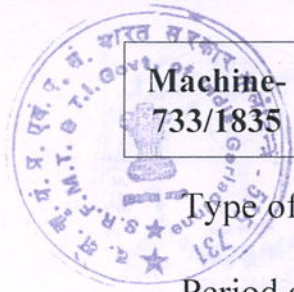
सत्यमेव जयते

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Machine-  
733/1835

KAMCO, KAMCO DELTA POWER WEEDER  
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COMMERCIAL  
(ICT)

Type of test : COMMERCIAL (ICT)

Period of test : September, 2024 to December, 2024  
27.09.2024 to 11/11/2024 delay occur due to find out the reason's blades deformation during field test and non-supply of hatchet blades by the applicant during course of testing.

Test Report No. : Machine-733/1835

Month / Year of release : February, 2025

- 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 through virtual mode.
- 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 "**KAMCO, KAMCO DELTA POWER WEEDER**". This report is valid up to **31.01.2032**, 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	<b>Force</b>	
	1 kgf	9.80665 N
		2.20462 lbf
2	<b>Power</b>	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	<b>Pressure</b>	
	1 psi	6.895 kPa
	1 kgf/cm <sup>2</sup>	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm <sup>2</sup>
	1 mm of Hg	1.3332 m-bar



1	2	3	4	5
22	Provision for easy start of engine	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	Provided	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 power was observed as 7.34 kW under natural ambient condition against the declared value of 7.45 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 235 g/kWh against the declared value of 272 g/kWh.
- 18.1.3 Back up torque of engine was observed as 15.50 % against declared value of 7 %.
- 18.1.4 Max. torque was observed as 33.61 Nm against the declared value of 30.66 Nm.

### 18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the weeder was observed to the extent of 480 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.



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### 18.3 Field Performance:

During field test after completion of 13 hours it was observed that all fitted straight blades has suffered some deformation (i.e. bend). Applicant vide letter no. E.03.06 dated 14/10/2024, requested to replace straight blades with hatchet blades. Keeping in view, at present no BIS code and acceptance criteria in case of breakdown/defects for power weeder in respect of the replacement of hatchet blades, it has been decided to reference as per provision given under repeat test as per clause no. 3.2.3 of IS: 12207 – 2022 for conducting field test. Subsequently repeat test was conducted and no breakdown/defects was recorded. **Therefore, it is recommended that, the only hatchet blades should be provided with power weeder for conducting field operations.**


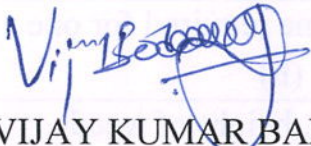

### 18.4 Technical literature:

User's manual is 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.

- Service manual
- Parts catalogue

### TESTING AUTHORITY

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

### 19. Applicant Comments

Ref. No.	Applicants comments
18.2	Necessary action will be taken to control the vibration on all areas.
18.4	The service manual and parts catalogue have been submitted already. However, it will be also provided in Hindi & regional language.