

THIS TEST REPORT IS VALID UP TO 29.02.2032



DOUBLE EAGLE, DE-790 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

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

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Machine- 736/1838	DOUBLE EAGLE, DE-790 POWER WEEDER THIS TEST REPORT IS VALID UP TO 29.02.2032	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Changzhou Machinery & Equipments
Imp & Exp. Co. Ltd., No. 62, Xinggang Road,
Changzhou, Jiangsu, **China**.

Applicant : M/s. Eagle Enterprises,
801/1-A, Kalapatti Road, Kalapatti Post,
Coimbatore-641048, Tamil Nadu.

DOUBLE EAGLE, DE-790 POWER WEEDER

Report no.: **Machine-736/1838**

Month: **March**

Year: **2025**



सत्यमेव जयते

Government of India
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Machine-
736/1838

DOUBLE EAGLE, DE-790 POWER WEEDER
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COMMERCIAL
(ICT)

Type of test : COMMERCIAL (ICT)
Period of test : November, 2024 to January, 2025
Test Report No. : Machine-736/1838
Month / Year of release : March, 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 through virtual mode 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 "**DOUBLE EAGLE, DE-790 POWER WEEDER**". This report is valid up to **29.02.2032**, 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



Machine-
736/1838

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**COMMERCIAL
(ICT)**

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

18.1.1 The maximum power was observed as 6.91 kW under natural ambient condition against the declared value of 6.3 kW.

18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 313 g/kWh against the declared value of 350 g/kWh.

18.1.3 Back up torque of engine was observed as 10.66% against declared value of 10%.

18.1.4 Max. torque was observed as 24.38 Nm against the declared value of 24 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the weeder was observed to the extent of 321 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 0.10 to 0.83% respectively 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, inter alia, the following must be provided:

- i. Address of the manufacturer
- ii. Country of origin
- iii. Specific fuel consumption (g/kWh)

18.5 Technical literature:

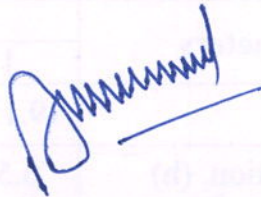
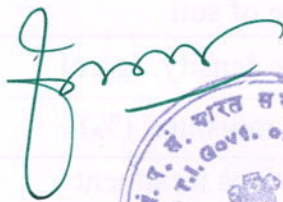

User's manual is provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

The following literature should be provided.

- i) Service manual
- ii) Parts catalogue

Machine- 736/1838	DOUBLE EAGLE, DE-790 POWER WEEDER	COMMERCIAL (ICT)
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TESTING AUTHORITY

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

19. APPLICANT'S COMMENTS

Sl. No.	Para No.	Comments
1	18.1.1	We will forward the comment to the engine manufacturer and will ask them to take corrective measures in future production.
2	18.1.2	We will take action as per recommendation of institute in future production.
3	18.1.3	We will forward the comment to the engine manufacturer and will ask them to take corrective measures in future production.
4	18.1.4	We will forward the comment to the engine manufacturer and will ask them to take corrective measures in future production.
5	18.2	We will take action as per recommendation of institute.
6	18.3	We will take action as per recommendation of institute.
7	18.4	We will take action as per recommendation of institute.
8	18.5	We will take action as per recommendation of institute.