

THIS TESTREPORT IS VALID UPTO 30.11.2031



DOUBLE EAGLE, DE-600 D 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- 687/1773	DOUBLE EAGLE, DE-600 D POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Eagle Enterprises, 801/1-A, Kalapatti Road, Kalapatti Post, Coimbatore-641048.

Applicant : The Manufacturer

DOUBLE EAGLE, DE-600 D POWER WEEDER

Report no.: Machine-687/1773

Month: December

Year: 2024



सत्यमेव जयते

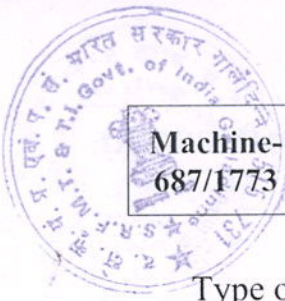
Government of India
Ministry of Agriculture and Farmers Welfare
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Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)
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**SOUTHERN REGION FARM MACHINERY TRAINING &
TESTING INSTITUTE, ANANTAPUR (A.P.)**

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Machine-
687/1773

DOUBLE EAGLE, DE-600 D POWER WEEDER

**COMMERCIAL
(ICT)**

THIS TEST REPORT IS VALID UP TO 30.11.2031

Type of test : COMMERCIAL (ICT)
Period of test : November, 2024 to December, 2024
Test Report No. : **Machine-687/1773**
Month / Year of release : December, 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 "**DOUBLE EAGLE, DE-600 D POWER WEEDER**". This report is valid up to **30.11.2031** 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 4.25 kW under natural ambient condition against the declared value of 4.5 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 386 g/kWh against the declared value of 350g/kWh.
- 18.1.3 Back up torque of engine was observed as 5.48 % against declared value of 6.0 %.
- 18.1.4 Max. torque was observed as 14.24 Nm against the declared value of 15 Nm.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 332 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 0.16 to 0.41% 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 Chemical analysis:

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.

18.5 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:


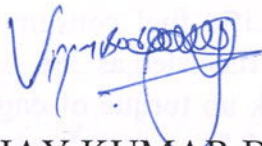
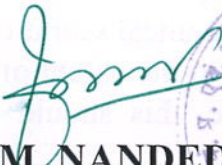
- i) Country of origin
- ii) Specific fuel consumption (g/kWh)

18.6 Technical literature:

Operator's manual and parts catalogue of power weeder were supplied with test sample for reference during the test. It is however, recommended that same may be revised and brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2019) for the sake of user & technical personnel in booklet form.

Machine- 687/1773	DOUBLE EAGLE, DE-600 D POWER WEEDER	COMMERCIAL (ICT)
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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

Sl. No.	Para No.	Comments
1	18.1	We will forward the comment to the engine manufacturer and will ask them to take corrective measures in future production.
2	18.2	We will take corrective action as per the recommendation of institute in future production.
3	18.3	We will take corrective action to reduce the oil pull over.
4	18.4	We will inform the supplier for corrective action.
5	18.5	We will take action as per recommendation of institute.