

THIS TEST REPORT IS VALID UPTO 30.11.2031



NAGA AGRITECH, NATO 700 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- 694/1786	NAGA AGRITECH, NATO 700 POWER WEEDER THIS TEST REPORT IS VALID UP TO 30.11.2031	COMMERCIAL (ICT)
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Manufacturer, (apa) : M/s. Chongqing Diligence General Machinery Co. Ltd., Building 1 No.1 Kangchao Road, Huaxi Banan, District Chongqing, **China.**

Applicant : M/s. Naga Agritech, No.354/8, Kempalinganahalli Service Road, Kunigal Bypass, Nelamangala-Taluk, Bengaluru rural - District, Karnataka-562123.

NAGA AGRITECH, NATO 700 POWER WEEDER

Report No.: **Machine-694/1786**

Month: **December**

Year: **2024**



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Machine-
694/1786

NAGA AGRITECH, NATO 700 POWER WEEDER
THIS TEST REPORT IS VALID UP TO 30.11.2031

COMMERCIAL
(ICT)

Type of test : COMMERCIAL(ICT)

Period of test : November, 2024 to December, 2024

Test Report No. : Machine-694/1786

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 selected randomly 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 "NAGA AGRITECH, NATO 700 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 5.34 kW under natural ambient condition against the declared value of 5.4 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 400 g/kWh respectively against the declared value of 480 g/kWh.
- 18.1.3 Max. Torque was observed as 15.17 Nm against the declared value of 18.0 Nm.
- 18.1.4 Back up torque of engine was observed as 7.44 % against declared value of 10%.

18.2 Mechanical vibration:

The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 356 microns, which is higher than the limit specified by the ILO. Therefore, necessary action to dampen the vibration should be taken in to account.

18.3 Hardness & Chemical analysis:

The Hardness & 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.

18.4 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:

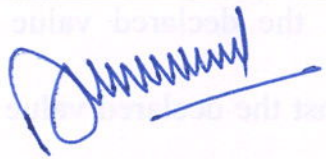
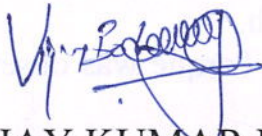

- i) Address of manufacturer
- ii) Country of origin
- iii) Specific fuel consumption (g/kWh)

18.5 Technical literature:

Instruction manual and parts catalogue of power weeder and engine in a single booklet was supplied with the 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 2004) for the sake of user & technical personnel.

Machine- 694/1786	NAGA AGRITECH, NATO 700 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	18.2	We will take corrective action in future productions.
2	18.3	We will take corrective action in future productions.
3	18.4	We will take corrective action as per IS 6690:1981(Reaffirmed 2022).
4	18.5	We will take corrective action as per IS standard.