# व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक) COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: Machine-691/1782

माह/Month: December, 2024

#### THIS TESTREPORT IS VALID UPTO 30.11.2031



### NAGA AGRITECH, NATO 800 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 9001:2015CERTIFIEDINSTITUTE]

Website: http://srfmtti.dacnet.nic.in/

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# NAGA AGRITECH, NATO 800 POWER WEEDER

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COMMERCIAL (ICT)

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 800 POWER WEEDER

Report no.: Machine-691/1782 Month: December Year: 2024



Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare
Southern Region Farm Machinery Training and Testing Institute
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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# NAGA AGRITECH, NATO 800 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-691/1782

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 "NAGA AGRITECH, NATO 800 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)	
	respected has a	745.7 W	
	1 Ps	735.5 W	
	1 kW	1.35962 Ps	
3	Pressure		
	1 psi	6.895 kPa	
	1 kgf/cm <sup>2</sup>	98.067 kPa = 735.56 mm of Hg	
	1 bar	$100 \text{ kPa} = 10 \text{ N/cm}^2$	
	1 mm of Hg	1.3332 m-bar	

### NAGA AGRITECH, NATO 800 POWER WEEDER

COMMERCIAL (ICT)

THIS TEST REPORT IS VALID UP TO 30.11.2031

110/3/2/

#### 18. COMMENTS & RECOMMENDATIONS

### 18.1 Engine Performance:

- 18.1.1 The maximum power was observed as 6.44 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 415 g/kWh against the declared value of 340 g/kWh.
- 18.1.3 Back up torque of engine was observed as 27.41 % against declared value of 10%.
- 18.1.4 Max. torque was observed as 21.71 Nm against the declared value of 22.0 Nm.

### 18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 380 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 0.20 to 1.85% 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 Hardness & chemical:

The hardness & chemical 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) Address of the manufacturer
- ii) Country of origin
- iii) Specific fuel consumption (g/kWh)

#### 18.6 Technical literature:

User's manual, service catalogue, warranty certificate and parts catalogue of power weeder was provided for reference during the test. It is However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

# NAGA AGRITECH, NATO 800 POWER WEEDER

THIS TEST REPORT IS VALID UP TO 30.11.2031

COMMERCIAL (ICT)

**TESTING AUTHORITY** 

Er. PRAMOD YADAV AGRICULTURAL ENGINEER

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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.	