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

संख्या/No:Machine-744/1847

माह/Month: March, 2025

# THIS TEST REPORT IS VALID UPTO 29.02.2032



# GREENLAND AGROTECH PVT. LTD., BIG BULL-01RIDE ON SELF PROPELLED MULTI -PURPOSE TOOL BAR



#### भारत सरकार

#### Government of India

कृषिएवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषिएवं 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, गार्लिदिन्ने-515 731, ज़िला: अनंतपुर (आं. प्र.)

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

[An ISO 9001:2015CERTIFIEDINSTITUTE]

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Machine-744/1847

# GREENLAND AGROTECH PVT. LTD., BIG BULL-01 RIDE ON SELF PROPELLED MULTI-PURPOSE TOOL BAR

COMMERCIAL (ICT)

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Manufacturer, (apa)

: M/s. Greenland Agrotech Pvt. Ltd., Rajkot-Jamnagar Highway, Near Saibaba temple, Village – Jayva, Dhrol, Dist. Jamnagar-361210 (Gujarat),

India.

Applicant

: The Manufacturer

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Report no.: Machine-744/1847

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# GREENLAND AGROTECH PVT. LTD., BIG BULL-01 RIDE ON SELF PROPELLED MULTI-PURPOSE TOOL BAR

COMMERCIAL (ICT)

THIS TEST REPORT IS VALID UP TO 29.02.2032

Type of test

: COMMERCIAL (ICT)

Period of test

: January, 2025 to March, 2025

Test Report No.

: Machine-744/1847

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 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 Tool Bar named "GREENLAND AGROTECH PVT. LTD., BIG BULL-01 RIDE ON SELF PROPELLED MULTI-PURPOSE TOOL BAR". 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 <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				

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COMMERCIAL (ICT)

#### THIS TEST REPORT IS VALID UP TO 29.02.2032

Main bearing of crank shaft:

Bearing	Dia of main	Dia of main	Diametrical clearance, (mm)	Crankshaft end float, (mm)	Max. permissible clearance limit, (mm)		
No.	Journal (mm)	bearing (mm)			Diametrical clearance	Crankshaft end float	
1.	42.01	42.07	0.06	0.13	NA	0.80	
2.	39.93	40.01	0.08	0.13	NA	0.80	

### Big end bearings:

Bearing No.	Dia of crank pin	Dia of bearing (mm)	Clearance, (	(mm)	Max. permissible clearance limit, (mm)	
	(mm)		Diametrical	Axial	Diametrical	Axial
1.	41.94	42.03	0.09	0.35	0.15	1.0

#### Valve guide clearance:

Valve guide diameter, (mm)		Valve steam diameter, (mm)		Valve guide clearance, (mm)		Max. permissible clearance limit, (mm)	
Inlet	Exhaust	Inlet	Exhaust	Inlet	Exhaust	Inlet	Exhaust
7.02	7.02	6.97	6.96	0.05	0.06	0.25	0.25

#### 18.2 Clutch:

No abnormality was observed.

#### 18.3 Transmission gears:

All the gears of the transmission system were found in normal working condition.

#### 19. COMMENTS & RECOMMENDATIONS

#### 19.1 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the weeder was observed to the extent of 1024 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

#### 19.2 Chemical analysis:

The chemical composition of Flail Mower blades and Cultivator shovel does not conform, to the requirements of IS: 6690-1981. This needs to be looked into for corrective action.

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### 19.3 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) Make

#### 19.4 Technical literature:

Owner's manual, service manual and parts catalogue provided in booklet form in English for reference during the test. It is recommended that same must be revised in and brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel in booklet form.

#### TESTING AUTHORITY

Er. PRAMOD YADAV AGRICULTURAL ENGINEER Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER

Dr. B.M. NANDEDE

DIRECTOR

#### 20. APPLICANT'S COMMENTS

Sl. No.	Para No.	Comments
1	19.1	We will take corrective action for reduce the amplitude of mechanical vibration on various assemblies of the machine.
2	19.2	We will take corrective action.
3	19.4	We will be developing the owner's manual, service manual & part catalogue in vernacular language.

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