# व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: Machine-538/1579

माह/Month: January, 2024

THIS TEST REPORT IS VALID UPTO 31/12/2030



## GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER



#### 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.)

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine-538/1579

# GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER

COMMERCIAL (ICT)

THIS TEST REPORT IS VALID UPTO 31/12/2030

Name of Manufacturer

M/S Taizhou Dongfeng Technology CO., Ltd.

(apa)

No. 289, Houcang Rd., Zeguo Town, Wenling City,

Zhejiang Province, China 317500

Name of Applicant

: M/S VJ Materials Mart 113 Opp Bus Stand Erode

638003 India.

### GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER

Report No.: Machine-538/1579

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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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# GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER THIS TEST REPORT IS VALID UPTO 31/12/2030

COMMERCIAL (ICT)

Type of test

: INITIAL COMMERCIAL TEST

Period of test

: 04.12.2023 to 28.12.2023

Test Report No.

Machine-538/1579

Month / Year of release :

January, 2024

 The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.

ii) The brush cutter was selected randomly through virtual mode.

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 Brush Cutter named "GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER". This report is valid up to 31/12/2030, 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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# GAJA HITECH AGRO, BC 52-SP BRUSH CUTTER THIS TEST REPORT IS VALID UPTO 31/12/2030

COMMERCIAL (ICT)

Big end bearings:

Bearing No.	Clearance,	Clearance, (mm)		Max. permissible clearance limit, (mm)	
	Diametrical	Axial	Diametrical	Axial	
1.	*	1.00	NA	1.50	

<sup>\*</sup>Measurement of big end bearing clearance not possible, as the piston along with connecting rod could not detachable.

Valve, guides and timing gears:

Not applicable

15.2 Clutch:

Observation

Any marked wear in clutch friction

: Normal

shoes

Condition of clutch release bearing

Not applicable

Presence of oil and water in clutch

: Nil

housing

Condition of pilot bearing Condition of clutch disc : Normal

15.3 Transmission system:

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

### 16. COMMENTS & RECOMMENDATIONS

- 16.1 The maximum power was observed as 0.76 kW under natural ambient condition against the declared value of 0.9 kW.
- 16.2 The safety provisions, as mentioned at para 5.14, have been provided by the applicant for safety aspect of operators.
- 16.3 The equivalent mechanical vibration on engine cover was observed to the extent of 220 micron. This should be looked into for dampening the vibration.
- 16.4 A fuel on/off knob may be considered for providing in the fuel system of engine.
- 16.5 The chemical composition of triangular blade (three teeth blade) does not conform to the requirement of IS 6025-1982 (HRC). This should be looked into for corrective action.

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16.6	The provided labeling plate should be as per the requirement of the IS.  Engine serial no and make, model of engine should be given with embossing on engine body instead of sticker during production level.				
16.7	Adequacy of literature supplied with the machine: The User's manual and spare parts list of brush cutter and engine in English were supplied with the brush cutter for reference during the test. It is however, recommended that same may be revised and brought out as per IS: 8132- 1999 (Reaffirmed: 2019) for the sake of user & technical personnel.				

# TESTING AUTHORITY:

Er. PRAMOD YADAV AGRICULTURAL ENGINEER

Mummy

Er. D.C. MOULI

AGRICULTURAL ENGINEER

Dr. B.M. NANDEDE DIRECTOR

17. Applicant comments

We take proper action against all the comments & recommendations specified in the Draft test report for the further products of our company. All the data & parameters mentioned in the DTR are correct & satisfied.