व्यावसायिक परीक्षण रिपोर्ट (वेरिएंट) COMMERCIAL TEST REPORT- (Variant)

संख्या No: PT-170/1584

माह/Month: February, 2024

THIS TEST REORT IS VALID UP TO 31.01.2031



VST SHAKTI 165 DI·ES POWER PLUS POWER TILLER



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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PT-170/1584

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COMMERCIAL (VARIANT)

Manufacturer

M/s. V.S.T. Tillers Tractors Ltd.,

Plot No. 222-224 & 229-232, 3rd Phase,

KIADB Industrial Area,

Malur, Kolar District-563130,

Karnataka., India.

Applicant

: The Manufacturer

Indigenous/Imported : Indigenous

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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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COMMERCIAL (VARIANT)

Type of Test

: COMMERCIAL (VARIANT)

Test code/Procedure

: IS 9935 : 2002 (Reaffirmed 2012)

IS 9980 :1988 (Reaffirmed 2004) IS 9980 :1988 (Reaffirmed 2004 IS 13539:2018 (Second Revision)

Period of Test

: 04.12.2023 to 07.12.2023

Test Report No.

: PT-170/1584

Month/Year of release

: February, 2024

 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 have been selected randomly from production line by representative of testing authority for tests.

iii) The results presented in this report do not in any way attribute to the durability of the machine.

iv) This report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training and Testing Institute, Garladinne, Anantapur (A.P.).

v) This is a Variant test report, and should be read in conjunction with the test report of base model i.e. "VST SHAKTI 165 DI·S POWER PLUS POWER TILLER" for Commercial test (First Batch Test) bearing report No. PT-166/1527, August 2023. This report of variant model is valid up to31.01.2031.

SELECTED CONVERSIONS

S. No	Units	Conversion Factor				
1	Force					
	1 kgf	9.80665 N				
	2,554	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	$100 \text{ kPa} = 10 \text{ N/cm}^2$				
	1 mm of Hg	1.3332 m-bar				

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*GOVT. OF IND

VST SHAKTI 165 DI·ES POWER PLUS POWER TILLER THIS TEST REORT IS VALID UP TO 31.01.2031

COMMERCIAL (VARIANT)

3.4 SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

Evaluative (mandatory)/ Non-evaluative (non-mandatory) parameters applicable for Qualifying Minimum Performance Criteria as per Clause –4.1 (Table-1) of IS 13539: 2018 (Second revision) for acceptance of the power tiller for the purpose of subsidies/institutional financing are summarized as under:

Category Whether (Evaluative Values Declared Requirements meets the /Non as per IS by the SI. As observed requirem Evaluative) Characteristics 13539: 2018 applicant/ No. ents (Second requirement (Yes/No) revision) V B B V 1 3 4 5a 5b 6b 7 6a 3.4.1 Rotary shaft performance: Minimum 80 percent of Evaluative a) Max. Power observed 9.1 9.1 9.55 9.27 Yes test, (kW) maximum bhp of power tiller Minimum 75 Power at rated b) engine Evaluative percent of speed,(kW) observed rated 8.6 8.6 8.60 9.27 Yes bhp of power tiller Specific fuel To be declared c) consumption by the corresponding manufacturer Evaluative 310 310 320 319 Yes to power at with a tolerance rated engine of speed,(g/kWh) + 5 percent Max. To be declared d) equivalent by the rotary shaft Evaluative manufacturer 374.4 374.4 386 372 Yes torque, Nm with a tolerance of± 8 percent

SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.) PT-170/1584

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COMMERCIAL (VARIANT)

	e			В	V	В	1	515731 T
1	2	3	4	5a	5b	6a	6b	7
e)	Max. operating temp. of rotary transmission oil, (°C)	Evaluative	To be declared by the Manufacturer	105	120	60	54	Yes

3.4.2 Salient Observations:

- 3.4.2.1 As compare to base model, the following features are changed in Variant model and details are given in Annexure I & II.
 - 1.Starting System
 - 2. Electrical System

The Results of the tests carried out on variant model "VST SHAKTI 165 DI-ES POWER PLUS" Power tiller has been compared with those on base model "VST SHAKTI 165 DI.S POWER PLUS" Power tiller and found within the limit as specified in Indian standard: 13539-2018.

TESTING AUTHORITY

Er.PRAMOD YADAV AGRICULTURAL ENGINEER

Ammin

Er.D.C.MOULI AGRICULTURAL ENGINEER

Dr. B.M.NANDEDE DIRECTOR

4. APPLICANT'S COMMENTS

No specific comment received from the applicant.

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