

व्यावसायिकपरीक्षणरिपोर्ट(प्रारंभिक)

COMMERCIAL TEST REPORT

संख्या/No:

H&TH/SRFMTTI,ANANTAPUR/2025-
26/17/17/1912

माह/Month: August,2025

THIS TEST REPORT IS VALID UPTO 31.07.2032



SHRACHI, SPR-1200 POWER REAPER



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]

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

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H&TH/SRFMTTI, ANANTAPUR/2025-26/ 17/17/1912	SHRACHI, SPR-1200 POWER REAPER THIS TEST REPORT IS VALID UP TO 31.07.2032	COMMERCIAL (ICT)
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Manufacturer : M/s. VST Tillers Tractors Ltd.
Plot No. 222-224 & 229-232, 3rd Phase,
KIADB Industrial Area, Malur, Kolar Dist-
563130 Karnataka.

Applicant : SHRACHI AGRIMECH LIMITED.
Shrachi tower, 686, Anandapur EM By-Pass
RB Connector, Kolkata, West Bengal-700107,
India

Indigenous/ Imported : Indigenous

SHRACHI, SPR-1200 POWER REAPER

Report No. : H&TH/SRFMTTI,ANANTAPUR/2025-26/17/17/1912

Month: August

Year: 2025

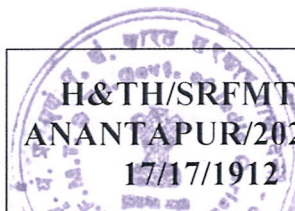


सत्यमेव जयते

Government of India
Ministry of Agriculture and Farmers Welfare
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	THIS TEST REPORT IS VALID UP TO 31.07.2032	

Type of test : COMMERCIAL TEST

Period of test : May, 2025 to August, 2025

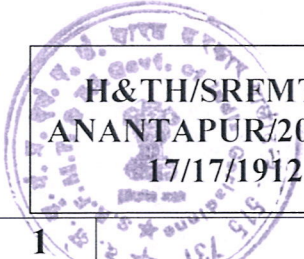
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Month / Year of release : August, 2025

- 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 the test report pertain to the particular machine randomly selected for test by the testing authority at applicant's site.
- 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 report on Commercial Test of power reaper named "**SHRACHI, SPR-1200 POWER REAPER**". **This report is valid up to 31.07.2032, Vide Ministry's O.M. No. 13-24/2018-M&T (I&P) dated 19.09.2018.**

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
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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1	2	3	4	5
20.	Slip clutch / safety pins at conveyor drive	Must be provided	Provided	Conforms
21.	Provision of row marker / crop guide	Must be provided	Provided	Conforms
22	Marking /labeling of machine	The labeling plate should be riveted on the body of machine having Name and Address of Manufactures & Applicant , Country of Origin , Make , Model , Year of Manufacturer , Serial Number , Engine Number , Engine HP, Rated rpm & SFC	Provided	Conforms
23	Literature	Operator manual, service manual and parts catalogue should be provided	Provided	Conforms

18. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

- 18.1** Engine maximum and rated power were observed as 3.0 kW against the declared values of 3.0 kW.
- 18.2** Specific fuel consumption of engine corresponding to maximum power was recorded as 400 g/kWh against the declaration value of 400 g/kWh
- 18.3** Back up torque of engine was observed as 8.98% only. This should be looked into for corrective action.
- 18.4** Max. Torque was observed as 17.11 Nm against declaration value of 18.0 Nm.
- 18.5** **Mechanical vibration:**
The amplitude of mechanical vibration on various assemblies of the Power Reaper was observed to the extent of 353 microns, which is on higher side. Therefore, necessary action to reduce the vibration should be taken in future.
- 18.6** The dimension of knife does not conform, in full, to IS: 6025-1982. This should be looked into for necessary corrective action.

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18.7 Field performance Test:

18.7.1 Rate of work and fuel consumption:

- The speed of harvesting ranged 1.88 to 1.94 kmph for paddy crops respectively.
- The area harvested by the machine was recorded as 0.152 to 0.161 ha/h.
- The average hourly fuel consumption varied from 0.750 to 0.850 l/h for paddy crop respectively.
- The fuel consumption per unit area harvested varied from 4.96 to 5.66 l/ha for paddy crop respectively.

18.7.2 Quality of Work:

- The post-harvest loss was observed as 0.07 to 0.10% for Paddy respectively.
- The stubble weight was recorded as 52.6 to 60.0 mm for Paddy respectively.
- Machine leaves the harvested crop in windrows.

18.8 One skilled operator can operate the machine continuously for about two hours only. Hence two skilled operators are required to operate the machine continuously and two unskilled labour for cutting of the crop on side and corners of the field to be harvested.

18.9 Wear of critical components:

- The wear rate of cutter bar on mass basis was recorded as 0.066 % per hour.
- The chemical composition of cutting (movable) blade and stationary knife are not conforming to the requirement of relevant IS (IS 6025:1982 (Reaffirmed: 1999)). Therefore, this should be taken care for corrective action.

18.10 Provision for safety:

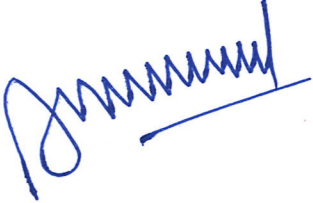



A safety pin at driven sprocket of conveyor chain is provided to take case of overloading of cutter bar.

18.11 Technical literature:

The operator manual cum parts catalogue of reaper and engine in single booklet was supplied with the reaper for reference during the test. The manuals are no adequate. The most of initial setting and discard limit of critical components may be added in manuals and leaflets etc. It is however, recommended that same may be revised and brought out in Hindi & other regional languages as per IS 8132: 1999 (Reaffirmed: 2019) for the sake of user & technical personnels.

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TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER
  Dr. P.P. RAO DIRECTOR	

19. APPLICANT COMMENTS

Sl. No.	Reference No.	Applicant Comments
1	18.3,18.4,18.5 & 18.6	The necessary corrective actions will be taken and will be incorporated in further production models.
2	18.9 (ii)	Suggestion and recommendation will be incorporated for the quality of Product and necessary corrective action will be taken.
3	18.11	User and technical manuals to be updated and published in Hindi & other vernacular languages.