

THIS TEST REPORT IS VALID UPTO 31.05.2031



**SHAKTIMAN, STMP-26 ULTRA SELF PROPELLED
PLATFORM FOR TREE MAINTENANCE
(FRUIT HARVESTER CUM PRUNER)**



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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[An ISO 9001:2015 CERTIFIED INSTITUTION]

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Machine- 586/1643	SHAKTIMAN, STMP-26 ULTRA SELF PROPELLED PLATFORM FOR TREE MAINTENANCE (FRUIT HARVESTER CUM PRUNER)
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Manufacturer, (apa) : M/s. Tirth Agro Technology Pvt. Ltd.,
"Shaktiman" Survey No: 108/1,
Plot No.: B, N.H.-27, Near Bharudi Toll Plaza,
Bhunava (Village), Tal. Gondal,
District: Rajkot - 360 311, Gujarat.

Applicant : The manufacturer

**SHAKTIMAN, STMP-26 ULTRA SELF-PROPELLED PLATFORM
FOR TREE MAINTENANCE (FRUIT HARVESTER CUM PRUNER)**

Report No.: Machine-586/1643

Month: June

Year: 2024



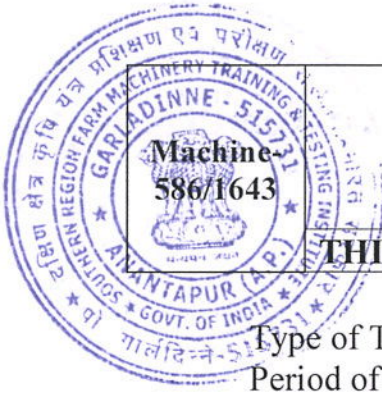
सत्यमेव जयते

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**SHAKTIMAN, STMP-26 ULTRA
SELF PROPELLED PLATFORM FOR
TREE MAINTENANCE
(FRUIT HARVESTER CUM PRUNER)**

**COMMERCIAL
(ICT)**

THIS TEST REPORT IS VALID UPTO 31.05.2031

Type of Test : COMMERCIAL (ICT)
 Period of Test : December, 2023 to April, 2024
 Test Report No. : **Machine-586/1643**
 Month/Year of release : June, 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 Self-Propelled Platform for Tree Maintenance (Fruit Harvester cum Pruner) named i.e “**SHAKTIMAN, STMP 26 ULTRA, SELF-PROPELLED PLATFORM FOR TREE MAINTENANCE (FRUIT HARVESTER CUM PRUNER)**”. This report is valid up to **31.05.2031**. 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)
		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 kPa = 10 N/cm ²
	1 mm of Hg	1.3332 m-bar

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16. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

16.1 Salient Observations:

16.1.1 Engine Performance:

- i) The maximum power and rated power were observed as 16.33 kW under natural ambient condition against the declared value of 16.5 kW.
- ii) Back up torque of engine was observed as 15.12 %, against the declared value of 7 %.
- iii) Specific fuel consumption of engine corresponding to maximum power and at rated engine speed was recorded as 285 g/kWh against the declared value of 293 g/kWh.
- iv) Max. torque was observed as 49.92 Nm corresponding to the engine speed of 2500 rpm, against the declared value of 50.0 Nm.

16.2 Mechanical Vibration:

The amplitude of mechanical vibration on maximum controls / measuring points of the Self propelled platform for tree maintenance (Fruit Harvester Cum Pruner) was observed up to extend of 260 micron, which is on higher side and is directly concerned with Operator’s Health, Safety and Comfort. Besides, it also adversely affects the useful life of the components. In view of the above, this should be given top priority for corrective action.

16.3 Labeling plate:

The labeling plate provided on the machine does not give full information. It is therefore recommended that, a labeling plate with following information (as per IS 10273:1987) may be provided on the machine

- I. Make
- II. Max. Power (kW)
- III. Specific fuel consumption (g/kWh).

16.4 It is recommended that only those bulbs should provided on head lamp of Self propelled platform for tree maintenance (Fruit Harvester Cum Pruner) which are duly tested as per AIS 034. Further, it is also recommended to fit only those “Head Lamp Assembly” on the Self-propelled platform for tree maintenance (Fruit Harvester Cum Pruner) which is duly tested in accordance with AIS 062.



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16.5 Safety devices:

- 16.5.1 A buzzer is provided to show that electric circuit is in on position.
- 16.5.2 Blinking indication in panel board to show that main switch is on position (red).
- 16.5.3 Green blinking indication in panel board to indicate engine is ready to starting.
- 16.5.4 Heater plug timer provided for electrical circuit safety purpose.
- 16.5.5 Spring loaded operator bucket door lock provided for safety purpose.
- 16.5.6 One additional distributor assembly provided in main chassis.
- 16.6 **Safety provisions:**
- 16.6.1 Foot rest pedal height should be reduced.
- 16.6.2 Anti slip foot rest pedal should be provided.
- 16.6.3 Direction of operation of direction control lever is unconventional and therefore it maybe looked into.
- 16.6.4 A mechanical lock should be provided for safety against sudden dropping/failure of hydraulic system.
- 16.6.5 It is recommended not to tow the machine on highways.
- 16.7 **Adequacy of literature supplied with the machine:**

The operational, Service manual cum Part's catalogue of Self-propelled platform for tree maintenance (Fruit Harvester Cum Pruner) literature was supplied with the test sample for reference during the test in a single booklet English was provided by the manufacturer. However, it should be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of users & technical personnel.

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. P KAMALABAI SENIOR AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	