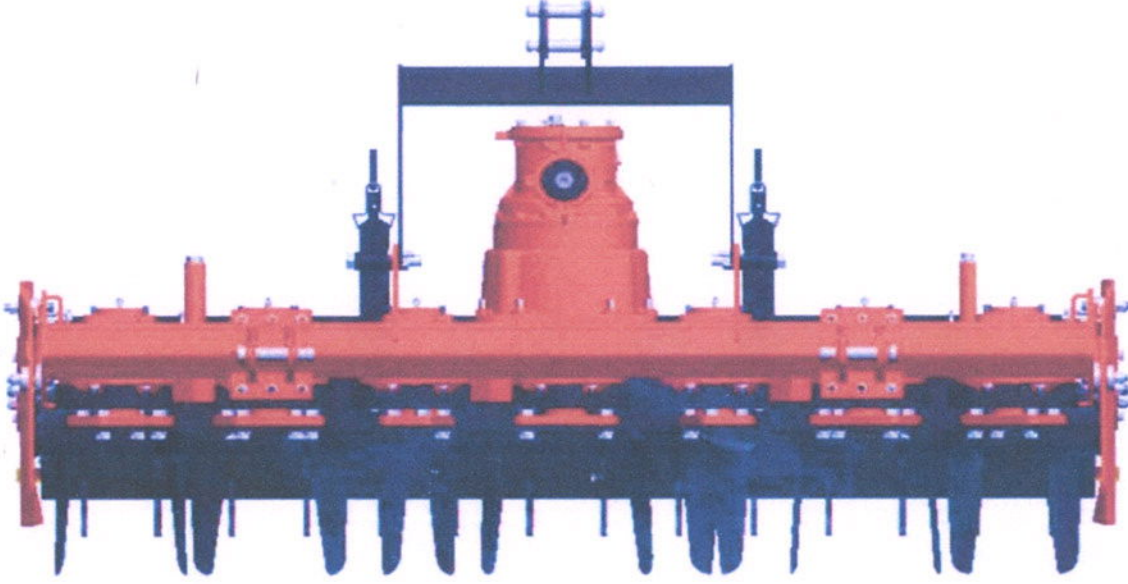


व्यावसायिक परीक्षण रिपोर्ट (प्रथम बैच)  
COMMERCIAL TEST REPORT (First Batch)

संख्या/No: IMP-396/1640  
माह/Month: June, 2024

**THIS TEST REPORT IS VALID UPTO 31.05.2033**



**SHAKTIMAN, SPH-6D SINGLE SPEED POWER HARROW  
(Tractor Mounted)**



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.)

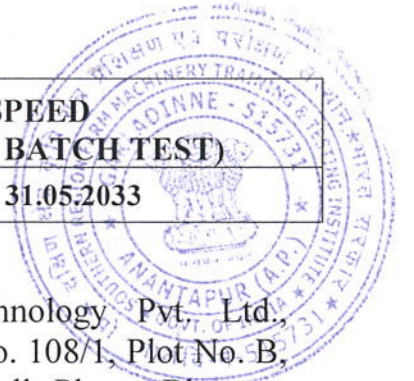
[An ISO 9001:2015 CERTIFIED INSTITUTE]

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

E-mail: [fmti-sr@nic.in](mailto:fmti-sr@nic.in)

Tele : 08551-286441

IMP- 396/1640	SHAKTIMAN SPH-6D SINGLE SPEED POWER HARROW (Tractor Mounted) (1 <sup>st</sup> BATCH TEST)
	THIS TEST REPORT IS VALID UP TO 31.05.2033



Manufacturer : M/s. Tirth Agro Technology Pvt. Ltd.,  
'SHAKTIMAN' Survey No. 108/1, Plot No. B,  
N.H. 27, Nr Bharudi Toll Plaza, Bhunava  
village, Taluka: Gondal, Dist.: Rajkot, Gujarat  
- 360311

Applicant : The Manufacturer.

**SHAKTIMAN, SPH-6D SINGLE SPEED POWER HARROW**

Report No.: **IMP-396/1640**

Month: **June**

Year: **2024**



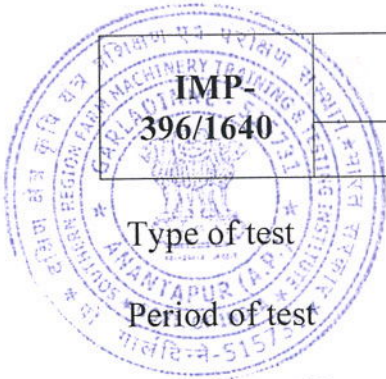
सत्यमेव जयते

**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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Telephone: 08551-286441



**IMP-396/1640**

**SHAKTIMAN SPH-6D SINGLE SPEED  
POWER HARROW (Tractor Mounted) (1<sup>st</sup> BATCH TEST)**

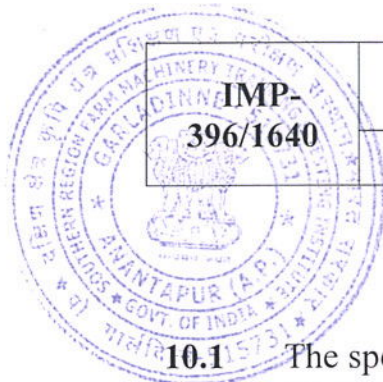
**THIS TEST REPORT IS VALID UP TO 31.05.2033**

Type of test : COMMERCIAL (First Batch Test)  
 Period of test : February, 2024 to March, 2024  
 Test Report No. : **IMP-396/1640**  
 Month / Year : 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 submitted by the applicant for test.
- 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 the first batch test report and therefore, should be read in conjunction with the test report of base model i.e “SHAKTIMAN SPH-6D SINGLE SPEED POWER HARROW (Tractor Mounted)” which was tested under Initial commercial testing vide test report no. IMP 407-728, released in January 2017. **This report is valid up to 31.05.2033. Vide Ministry's O.M. No. 13-22/2020-M&T (I&P) dated 12.12.2023.**

**SELECTED CONVERSIONS**

S. No	Units	Conversion Factor
<b>1</b>	<b>Force</b>	
	1 kgf	9.80665 N
		2.20462 lbf
<b>2</b>	<b>Power</b>	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
<b>3</b>	<b>Pressure</b>	
	1 psi	6.895 kPa
	1 kgf/cm <sup>2</sup>	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm <sup>2</sup>
	1 mm of Hg	1.3332 m-bar







<b>SHAKTIMAN SPH-6D SINGLE SPEED POWER HARROW (Tractor Mounted) (1<sup>st</sup> BATCH TEST)</b>
<b>THIS TEST REPORT IS VALID UP TO 31.05.2033</b>

**10. SUMMARY OF OBSERVATIONS,  
COMMENTS AND RECOMMENDATIONS**

- 10.1** The specification of implement hitch in its mast height does not conform to the IS 4468 (Part 1): 1997 (Reaffirmed 2012). Hence, it is recommended that the implement should be provided with mast height conforming to relevant Indian Standards.
  
- 10.2** Dimensions of PIC of implement at notation "a", does not conform to IS 4931 :1995 and therefore, it should be looked into for corrective action.
  
- 10.3** Carbon & manganese content of rotor blade are not conforming the limit as specified in relevant test code IS 6690: 1981 (Reaffirmed 2012). Therefore, it should be looked into for corrective action.
  
- 10.4** The hourly rates of wear of blades on mass basis operation was recorded as 0.46 to 0.58 %
  
- 10.5** The dip-stick & drain plug at primary reduction box are not provided. It is therefore recommended that this may be looked into the for enhancing easiness in maintenance of the power harrow.
  
- 10.6 Adequacy of literature supplied with the machine:**  
Operator's cum Parts manual of Power Harrow in English, was provided for reference during the test. It is however, recommended that same may be revised and bought out as per IS: 8132- 1999 (Reaffirmed 2004) for the sake of user & technical personnel.

IMP- 396/1640	SHAKTIMAN SPH-6D SINGLE SPEED POWER HARROW (Tractor Mounted) (1 <sup>st</sup> BATCH TEST)
	THIS TEST REPORT IS VALID UP TO 31.05.2033

**TESTING AUTHORITY:**

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

**11. APPLICANTS COMMENTS**

Sl.no.	Para no.	COMMENTS
1	10.1	We will make necessary correction as per IS 4468 (Part 1):1997 (Reaffirmed 2012).
2	10.2	We will make necessary correction as per IS 4931 :1995
3	10.3	We will make necessary correction as per IS 6690-1981 (Reaffirmed 2012).
4	10.6	We will update operator cum part manual & other available literature in accordance with IS 8132:1999(Reaffirmed 2004).