

**THIS TEST REPORT IS VALID UPTO 31.08.2031**



**LIMAT & CO., SBI PRAKASH 186F POWER WEEDER**



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]

Machine- 652/1714	LIMAT & CO., SBI PRAKASH 186F POWER WEEDER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 31.08.2031	

Manufacturer : M/s. Limat & Co.,  
622/1, Trichy Road, Singanallur,  
Coimbatore, Tamilnadu-641005,  
India.

Applicant : The Manufacturer

**LIMAT & CO., SBI PRAKASH 186F POWER WEEDER**

Report no.: Machine-652/1714

Month: September

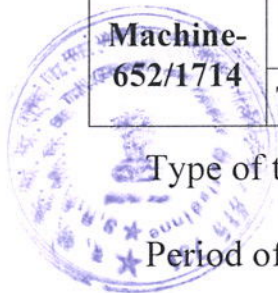
Year: 2024



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**Southern Region Farm Machinery Training and Testing Institute**  
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**[An ISO 9001:2015 CERTIFIED INSTITUTE]**

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Machine- 652/1714	LIMAT & CO., SBI PRAKASH 186F POWER WEEDER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UP TO 31.08.2031	

Type of test : COMMERCIAL (ICT)  
Period of test : July, 2024 to August, 2024  
Test Report No. : Machine-652/1714  
Month / Year of release : September, 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 Power Weeder named "**LIMAT & CO., SBI PRAKASH 186F POWER WEEDER**". This report is valid up to **31.08.2031**, 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	<b>Force</b>	
	1 kgf	9.80665 N
		2.20462 lbf
2	<b>Power</b>	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	<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



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## 18. COMMENTS & RECOMMENDATIONS

### 18.1 Engine Performance:

- 18.1.1 The maximum power was observed as 6.27 kW under natural ambient condition against the declared value of 6.8 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 289 g/kWh against the declared value of 340 g/kWh.
- 18.1.3 Back up torque of engine was observed as 9.85 % against declared value of 10 %.
- 18.1.4 Max. torque was observed as 18.28 Nm against the declared value of 18 Nm.

### 18.2 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 420 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

### 18.3 Hardness and chemical analysis:

The hardness and chemical analysis of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022) does not conforms. This should be looked into corrective action.

### 18.4 Marking/labeling:

The labeling plate does not reveal all the required information. it is therefore recommended that a suitable labeling plate covering all essential components, inter alia, the following must be provided:

- i) Address of manufacturer
- ii) Country of origin
- iii) Make
- iv) Year of manufacturer
- v) Engine hp
- vi) Rated speed
- vii) Specific fuel consumption (kg/kWh)

### 18.5 Technical literature:

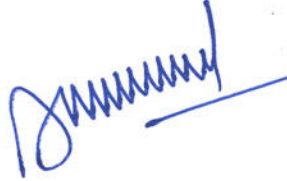


User's manual is not provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

The following literature should be provided.

- i) Service manual
- ii) Parts catalogue

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**TESTING AUTHORITY**

Er. PRAMOD YADAV AGRICULTURAL ENGINEER	
Dr. B.M. NANDEDE DIRECTOR	 

**19. APPLICANT COMMENTS**

Reference No.	Applicant comments
18.1.2 & 18.1.4	We will inform it to our manufacturer for making necessary possible changes in the machine.
18.2	We will insist strongly to the manufacturer to put some vibration dampeners.
18.3	We will make some changes in blade material to meet the requirements of IS 6690:1981 (Reaffirmed 2022).
18.4	Your suggestion is noted, we will modify the labelling plate of machine as per your recommendations.
18.5	We will be brought out the literature as per IS 8132:1999 (Reaffirmed 2004).