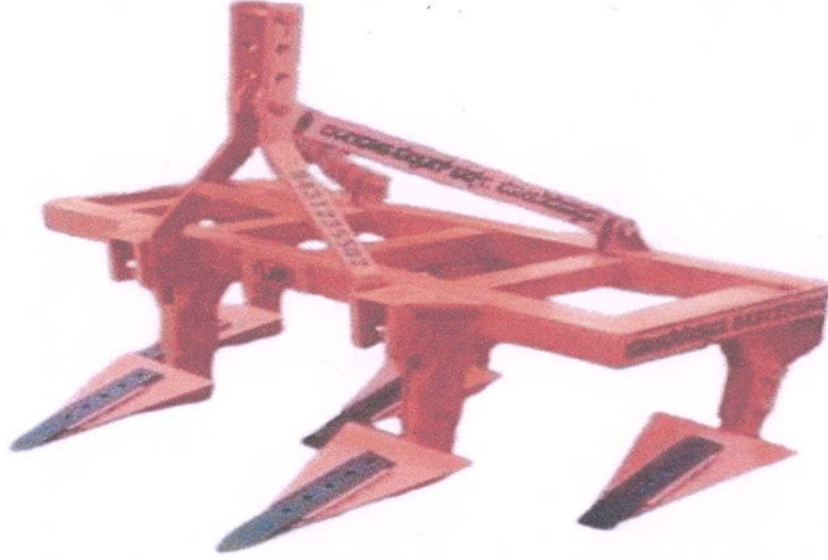


THIS TEST REPORT IS VALID UP TO 30.11.2031



**LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR
(Tractor Mounted)**



सत्यमेव जयते

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

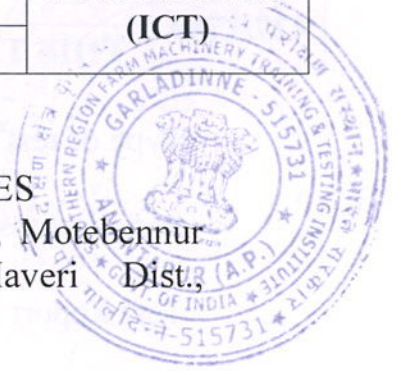
Southern Region Farm Machinery Training and Testing Institute

ट्रैक्टर नगर, गार्लदिन्ने - 515 731, जिला: अनंतपुर (आं. प्र.)

Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.)

[An ISO 9001:2015 CERTIFIED INSTITUTE]

IMP-427/1783	LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR (Tractor Mounted)	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 30.11.2031	



Manufacturer : M/s. LINGARAJ ENTERPRISES
Flat No. 242, Kodihalli Road, Motebennur
Village, Byadgi Taluk, Haveri Dist.,
Karnataka-581106.

Applicant, : The Manufacturer

**LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR
(Tractor Mounted)**

Report No.: **IMP-427/1783**

Month: **December**

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.)
[An ISO 9001:2015CERTIFIED INSTITUTE]**

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

E-mail: fmti-sr@nic.in

IMP-427/1783	LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR (Tractor Mounted)	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 30.11.2031	

Type of test : COMMERCIAL (ICT)

Period of test : December, 2024

Test Report No. : IMP-427/1783

Month / Year of release : December, 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 through virtual mode.
- 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 report on commercial test of Duck Foot Cultivator named "LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR (tractor mounted)". This report is valid up to 30.11.2031, 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
	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

IMP- 427/1783	LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR (Tractor Mounted)	COMMERCIAL (ICT)
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6.3 Power requirement:

The average draft requirement was ranged from 500.4 to 524.2 kgf and the average power requirement was calculated as 5.2 to 5.6 kW.

6.4 Wear of Shovel:

Sl. No.	Initial Mass (g)	Final Mass (g)	Loss of Mass (g)	Percentage of Wear	
				After 26.0 h	Per hour
1	2168.6	1995.5	173.1	7.98	0.31
2	2042.6	1906.6	136.0	6.66	0.26
3	2088.5	1843.7	244.8	11.72	0.45
4	2098.6	1918.4	180.2	8.59	0.33
5	2116.5	1887.7	228.8	10.81	0.41

Remark: - The hourly percentage wear of blades on mass basis was recorded as 0.26 to 0.45%.

7. EASE OF OPERATION & ADJUSTMENTS

No difficulty was observed during the operation and adjustment of cultivator.

8. DEFECTS, BREAKDOWNS AND REPAIRS

No defect/breakdown was occurred during entire period of field tests.

9. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATION


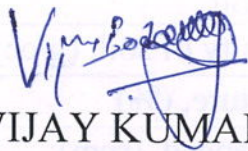
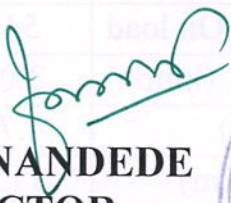
- 9.1 The dimensions of tines does not conform fully with IS 7565 (Pt-I):1975 (Reaffirmed 1999). It should be looked into for corrective action.
- 9.2 The specification of implement hitch does not conform fully to the IS 4468 (Pt-I):1997 (Reaffirmed 2012). It is recommended that the same should be provided conforming to the relevant Indian Standards.
- 9.3 The bolts used for shovel are hexagonal one, it is recommended to use the Counter sunk bolt as per IS 6813:2000
- 9.4 **Hardness & Chemical analysis:**
The Hardness & Chemical analysis of shovels does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

IMP- 427/1783	LINGARAJ ENTERPRISES, 5TYNE DUCK FOOT CULTIVATOR (Tractor Mounted)	COMMERCIAL (ICT)
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9.5 Technical literature:

The Operator's manual cum parts catalogue of Duck foot cultivator in English was supplied for reference during the test. It is however, recommended that same may be revised and brought out as per IS: 8132-1999 (Reaffirmed 2004) for the sake of user & technical personnel.

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	



10. APPLICANT COMMENTS

Sl. No.	Para No.	Comments
1	9.1	We will take corrective action as per IS 7565 (Pt-I):1975 (Reaffirmed 1999)
2	9.2	We will take corrective action as per IS 4468 (Pt-I):1997 (Reaffirmed 2012).
3	9.3	We will take corrective action as per IS 6813:2000
4	9.4	We will take corrective action as per IS 6690:1981 (Reaffirmed 2022).
5	9.5	We will take corrective action as per IS: 8132- 1999 (Reaffirmed 2004).