## व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक) COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: IMP-525/1028 माह/Month: June, 2019 Validity: 31.05.2026



# S.L.V. TEW 5 BDFC FIVE BOTTOM DUCK FOOT CULTIVATOR (Tractor Mounted)



#### भारत सरकार

Government of India कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare कृषि, सहकारिता एवं किसान कल्याण विभाग

Department of Agriculture, Cooperation and Farmers Welfare दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Southern Region Farm Machinery Training and Testing Institute द्रैक्टर नगर, गार्लिदिन्ने-515 731, जिला: अनंतपुर (आं. प्र.)

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IMP-<br/>525/1028S.L.V. TEW 5 BDFC FIVE BOTTOM DUCK<br/>FOOT CULTIVATOR (Tractor Mounted)COMMERCIAL<br/>(ICT)

Manufacturer : M/s. S.L.V. Traders & Engineering Works,

Plot No. 2, Industrial Area, Somanahalli,

Maddur Tq., Mandya Dist., Karnataka - 571 429, **India.** 

Name of Applicant : The Manufacturer

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#### **Government of India**

Ministry of Agriculture and Farmers Welfare Department of Agriculture, Cooperation and Farmers Welfare Southern Region Farm Machinery Training and Testing Institute Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)

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#### 6.3 Power requirement

The average draft requirement was ranged from 468 to 548 kgf and the average power requirement was calculated as 6.55 to 8.01 kW.

#### 6.4 Wear of shovel:

	Initial		Loss		Percentage of Wear	
S. No.	Mass (g)	Final Mass (g)	of Mass (g)	After 26.0 h	Per hour	
1	2876.6	2735.6	141.0	4.90	0.19	
2	2407.2	2263.0	144.2	5.99	0.23	
3	2883.4	2704.8	178.6	6.19	0.24	
4	2947.1	2668.2	278.9	9.46	0.36	
5	2684.4	2438.6	245.8	9.16	0.35	

**Remark:** - The hourly percentage wear of blades on mass basis was recorded as 0.19 to 0.36%.

#### 7. EASE OF OPERATION & ADJUSTMENTS

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

#### 8. DEFECTS, BREAKDOWNS AND REPAIRS

No defect/breakdown and repair was occurred during entire period of field & lab tests.

## 9. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATION

- 9.1 The hardness of shovels conforms to the requirement of IS 6813:2000.
- 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 bolt used for shovel is Hexagonal bolt, it is recommended to use the Counter sunk bolt as per IS 6813: 2000.
- 9.4 The material used for tine is Mild Steel, it is therefore recommended to use the Carbon Steel as per IS 6638:1972.

11/11	S.L.V. TEW 5 BDFC FIVE BOTTOM DUCK FOOT CULTIVATOR (Tractor Mounted)	COMMERCIAL (ICT)
525/1028	FOOT COLITYATOR (Trace)	001 (Deaffirmed

- 9.5 Chemical composition of shovel conforms to IS 6690:1981 (Reaffirmed 2012).
- 9.6 The labeling plate should be provided as per the requirements of IS.

## 9.7 Adequacy of literature:

Operation manual, Service manual, Maintenance manual and Spare parts catalogue of cultivator in English was provided in a single booklet form for reference during the test. However, this may be brought out in Hindi and other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

### **TESTING AUTHORITY:**

B.N. DIXIT AGRICULTURAL ENGINEER	Bl
Dr. P.P. RAO DIRECTOR	P-P. Ras.

## 10. APPLICANT'S COMMENTS

"We have noted your suggestions and we will make all possible necessary changes in future production".