

ब्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT

संख्या/ No.: IMP- 1059/2946/2022  
माह/ Month: December, 2022

**THIS TEST REPORT VALID UP TO : 31<sup>st</sup> December, 2029**



**UNIVERSAL, BEPRC-9 (9 TINE RIGID)  
CULTIVATOR, 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

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Northern Region Farm Machinery Training and Testing Institute

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**6. RUNNING-IN**

The cultivator was run-in for 1.0 hour in the field.

**7. FIELD PERFORMANCE TEST**

The field test of the cultivator was conducted for 27.16 hours in different soil moisture conditions to assess the performance of the implement.

The no load engine speed of tractor was maintained as 1700 rpm and the observations are summarized in Table-3.

**Summary of field performance test****Table-3**

Sr. No.	Parameters	Range
1.	Prime mover	Farmtrac-45
2.	Gear used	H-1
3.	Type of soil	Sandy loam
4.	Soil moisture (%)	12.6 to 14.0
5.	Engine speed (rpm)	
	No load	1700
	On load	1550 to 1650
6.	Bulk density of soil (g/cc)	1.24 to 1.34
7.	Speed of operation (kmph)	6.41 to 7.11
8.	Depth of cut (cm)	10.1 to 10.6
9.	Width of operation (cm)	200 to 204
10.	Wheel slippage (%)	2.56 to 5.94
11.	Area covered (ha/h)	1.031 to 1.160
12.	Time required for one hectare (h)	0.87 to 0.97
13.	Field efficiency (%)	79.35 to 81.25
14.	Fuel consumption	
	l/h	3.89 to 5.00
	l/ha	3.55 to 4.77
15.	Implement draft (kgf)	883 to 1166

**7.1 Rate of work**

- Average rate of work in sandy loam was recorded as 1.031 to 1.160 ha/h at the forward speed of 6.41 to 7.11 kmph.
- Average time required to cover one hectare area was recorded as 0.87 to 0.97 h.

**7.2 Quality of work**

- Average depth of operation was recorded as 10.1 to 10.6 cm.
- Average field efficiency was recorded as 79.35 to 81.25 %.

**7.3 Draft requirement**

The average draft requirement was ranged from 883 to 1166 kgf.





12.	Marking/labelling of machine	The labelling plate should be riveted on the body of machine having Name and address of manufacture, Country of Origin, Make, Model, Year of manufacture, Serial Number, Type, Size, required of prime mover (kW)	Address of manufacture, Year of manufacture, Serial number, Model are provided	Partially conforms
13.	Literature	Operator manual, Service manual and Parts catalogue should be provided.	Provided	Conforms

## 11. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

11.1 The labeling plate should be provided with following information.

- i) Make
- ii) Model
- iii) Serial number
- iv) Year of manufacture
- v) Size of implement
- vi) Required size of prime mover (kW)
- vii) Name and address of manufacturer
- viii) Country of origin
- ix) Weight (kg)

### TESTING AUTHORITY

Er. SANJAY KUMAR AGRICULTURAL ENGINEER	
Dr. MUKESH JAIN DIRECTOR	 07.12.2022

## 12. APPLICANT'S COMMENTS

We will improve all the required parameters at our production level.