

THIS TEST REPORT VALID UP TO : 30th September, 2029



**SONALIKA, SLMRC-5 RIGID TYNE
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

ट्रैक्टर नगर, सिरसा रोड, हिसार, (हरियाणा) - 125 001

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[ISO 9001:2015 CERTIFIED]

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6. RUNNING – IN

The implement was run in for 0.57 hour before field performance test.

7. FIELD PERFORMANCE TEST

The field test of the implement was conducted for 26.87 hours in different soil moisture conditions to assess the performance of the implement.

The no load engine speed of tractor was maintained as 2500 rpm and the observations are summarized in Table-3.

Table-3: Summary of field performance test

Sr. No.	Parameters	Observations
1.	Tractor used	VST Shakti MT 270
2.	Gear used	H-1
3.	Type of soil	Sandy loam
4.	Avg. soil moisture (%)	14.3 to 17.8
5.	Avg. engine speed (rpm)	
	No load	2500
	On load	2350 to 2400
6.	Avg. Bulk density of soil (g/cc)	1.31 to 1.72
7.	Avg. speed of operation (kmph)	4.33 to 4.98
8.	Avg. depth of cut (cm)	9.40 to 10.33
9.	Avg. width of operation (cm)	100.0 to 100.1
10.	Avg. wheel slippage (%)	5.59 to 6.98
11.	Area covered (ha/h)	0.38 to 0.44
12.	Avg. time required for one hectare (h)	2.38 to 2.63
13.	Avg. field efficiency (%)	77.55 to 86.67
14.	Avg. fuel consumption	
	l/h	2.40 to 3.50
	l/ha	5.71 to 8.75
15.	Avg. implement draft (kgf)	456

7.1 Rate of work

- Average rate of work in sandy loam was recorded as 0.38 to 0.44 ha/h at the forward speed of 4.33 to 4.98 kmph.
- Average time required to cover one hectare area was recorded as 2.38 to 2.63 h.

7.2 Quality of work

- Average depth of operation was recorded as 9.40 to 10.33 cm.
- Average field efficiency was recorded as 77.55 to 86.67 %.

7.3 Draft requirement

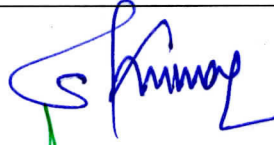
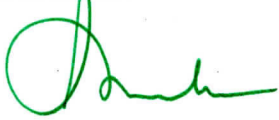
The average draft requirement was ranged from 456 kgf.

12.	Marking/labeling of machine	The labeling plate should be riveted on the body of machine having Name and address of manufacturer, Country of Origin, Make, Model, Year of manufacturer, Serial Number, Type, Size, required of prime mover (kW)	Provided	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 specification of implement hitch does not conform fully to the IS:4468 (Part1)-1997. It is recommended that the same should be provided conforming to the relevant Indian Standard.
- 11.2** The specification of reversible shovel does not conform fully to the IS:6813-2000. It is recommended that the same should be provided conforming to the relevant Indian Standard.
- 11.3 Technical literature:**
The following literature was supplied during test.
- Operator's manual
- It is recommended to provide following literature.
- Service manual
 - Part's catalogue
- The operation manual should be updated as per IS:8132-1999.

TESTING AUTHORITY

Er. SANJAY KUMAR AGRICULTURAL ENGINEER	
Dr. MUKESH JAIN DIRECTOR	 23.09.2022

12. APPLICANT'S COMMENTS

We will take corrective action as per your comments.