

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या/ No.: Power Weeder – 163/2967/2023

माह/Month: January, 2023

THIS TEST REPORT VALID UP TO : 31st January, 2028



**KISANKRAFT, KK-IC-205P
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

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Northern Region Farm Machinery Training and Testing Institute

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Page 1 of 23

11. RUNNING – IN

The power weeder was run-in for 0.50 hour before field performance test as recommended by the applicant. All the fasteners were checked and tightened thereafter.

12. FIELD TEST

The field tests under dry land condition were conducted for 25.18 hours. The field tests were conducted at rated speed 3600 rpm. In all, 4 tests trials were conducted in sandy loam soil at N.R.F.M.T.T.I farm, Hisar. The summary of the field test for dry land operation is given in table-4.

Crop parameters

- i) Type of weed - Seasonal weeds
ii) Height of weed, cm - 10 to 22

Table 4: SUMMARY OF FIELD PERFORMANCE TEST

Sr. No.	Parameter		Range
i)	Type of soil	:	Sandy loam
ii)	Soil moisture, %	:	10.8 to 12.3
iii)	Bulk density of soil, g/cc	:	1.68 to 1.80
iv)	Speed of operation, kmph	:	1.15 to 1.20
v)	Depth of cut, cm	:	10.56 to 11.00
vi)	Width of cut, m	:	0.95 to 0.96
vii)	Area covered, ha/h	:	0.095 to 0.099
viii)	Time required for one ha	:	10.10 to 10.53
ix)	Fuel consumption		
		l/h :	0.89 to 1.03
		l/ha :	9.37 to 10.85
x)	Weeding efficiency, %	:	96.67 to 98.10
xi)	Field efficiency, %	:	85.16 to 87.27

13. ADJUSTMENT, DEFECTS, BREAKDOWNS & REPAIR

No noticeable defect/breakdown observed during test.

14. COMPONENTS/ASSEMBLY INSPECTION AND ASSESSMENT OF WEAR**14.1 Engine:**

The engine and other assemblies were dismantled after 30.53 hours of engine operation.

14.1.1 Cylinder:

Cylinder bore dia. (mm)						Max. permissible wear limit
Top position		Middle position		Bottom position		
Thrust	Non-thrust	Thrust	Non-thrust	Thrust	Non-thrust	
70.02	70.02	70.02	70.02	70.02	70.02	70.30



16. COMMENTS & RECOMMENDATIONS**16.1 Mechanical vibration**

The amplitude of mechanical vibration marked as (*) on the relevant chapter, are on drastically higher side. It is not just directly concerned with operator's health, safety and comfort, but also adversely affects the useful life of the components. In view of above, this deserve to be given top priority for corrective action.

- 16.2** The hardness of blades does not conform to the requirements of IS: 6690-1981. This needs to be looked into for corrective action.



17. TECHNICAL LITERATURE

The following literatures were provided by the applicant.

- i) Operator manual
- ii) Parts catalogue
- iii) Service manual

However, the manual needs to be updated as per IS: 8132-1999

TESTING AUTHORITY

Er. SANJAY KUMAR AGRICULTURAL ENGINEER	
DR. MUKESH JAIN DIRECTOR	 13.01.2023

Test report is compiled by Er. Aman Garg

18. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicants comments
18.1	16.1 & 16.2	We will take the corrective action against the same.

