

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या/ No.: Power Weeder - 162/2949/2022
माह/Month: December, 2022

THIS TEST REPORT VALID UP TO : 31st December, 2027



**KISANKRAFT, KK-IC-400D
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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[ISO 9001:2015 CERTIFIED]

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12. FIELD TEST

The field tests under dry land condition were conducted for 26.13 h. The field performance tests were conducted at the rated 3000 rpm. In all, 5 tests trials were conducted in sandy loam soil at the NRFMTTI farm, Hisar. The result of the field test for dry land operation is summarized in table-5.

Crop parameters

- i) Type of weed - Seasonal weeds
ii) Height of weed, cm - 9.0 to 40.1

Table 5: SUMMARY OF FIELD PERFORMANCE TEST

Sl. No.	Parameter		Range
i)	Type of soil	:	Sandy loam
ii)	Soil moisture, %	:	6.1 to 7.5
iii)	Bulk density of soil, g/cc	:	1.25 to 1.34
iv)	Speed of operation, kmph	:	0.95 to 0.97
v)	Depth of cut, cm	:	4.8 to 5.0
vi)	Width of cut, m	:	0.96 to 0.97
vii)	Area covered, ha/h	:	0.076 to 0.084
viii)	Time required for one ha	:	11.90 to 13.09
ix)	Fuel consumption		
		l/h :	0.900 to 1.100
		l/ha :	11.78 to 13.69
x)	Weeding efficiency, %	:	82.31 to 88.91
xi)	Field efficiency, %	:	82.15 to 89.36

13. ADJUSTMENT, DEFECTS, BREAKDOWNS & REPAIR

No noticeable breakdown occurred during test.

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

The Engine and other assemblies were dismantled after 29.76 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	
86.03	86.02	86.04	86.02	86.03	86.02	86.65

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 affect the useful life of the components. In view of above, this deserved to be given top priority for corrective action.

16.2 The chemical composition of blades does not conform in toto, to the requirements of IS: 6690-1981. This needs to be looked into for corrective action.

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


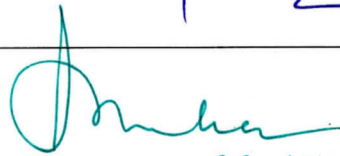
17. TECHNICAL LITERATURE

The following literatures are provided by the applicant during the test.

- a) Operator's manual
- b) Part catalogue
- c) Engine parts catalogue

However, the Operator's manual needs to be updated as per IS: 8132-1999.

TESTING AUTHORITY

SANJAY KUMAR AGRICULTURAL ENGINEER	
Dr. MUKESH JAIN DIRECTOR	 02.12.2022

Test report is compiled by Er. Ajay

18. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicants comments
18.1	16.1, 16.2 & 16.3	We will take the corrective action against the same