

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट
INITIAL COMMERCIAL TEST REPORT

संख्या/No. CSIR/CMERI/FMTTC/2022/011

माह/Month: September, 2022

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



**JK SUPER MANKU 5 FAN
TRACTOR OPERATED PADDY THRESHER**



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र
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4. SPECIFICATION

4.1 General

Name of manufacturer	: Jai Kishan Engineering Works
Name of applicant	: Premangshu Mahato
Name of Machine	: Paddy Thresher
Type	: Tractor P.T.O. Operated
Make	: Jai Kishan Engineering Works
Model	: J.K. Super Manku 5 Fan
Serial No.	: JKWS1 195
Year of manufacture	: 2022
Recommended crop	: Paddy
Recommended power source	: 39 hp



Fig. 1 Schematic view of Tractor Operated Paddy Thresher

7.2.1 Rate of work

The input rate was recorded as 3602 kg/h.

The grain output at main outlet was recorded as 1623 kg/h.

7.2.2 Quality of work

The percentage of broken grain was recorded as 0.99

The percentage of blown grain was recorded as 0.79

The percentage of unthreshed grain was recorded as 0.19

The percentage of spilled grain was recorded as 0.019

The percentage of threshing efficiency was recorded as 98.89

The percentage of cleaning efficiency was recorded as 99.01

7.2.3 Fuel Consumption

Avg. fuel consumption was observed as 3.75 l/h

7.3 At 50% Optimum input capacity**7.3.1 Rate of work**

The input rate was recorded as 1792 kg/h.

The grain output at main outlet was recorded as 844 kg/h.

7.3.2 Quality of work

The percentage of broken grain was recorded as 0.65

The percentage of blown grain was recorded as 0.14

The percentage of unthreshed grain was recorded as 0.07

The percentage of spilled grain was recorded as 0.03

The percentage of threshing efficiency was recorded as 99.08

The percentage of cleaning efficiency was recorded as 98.36

7.3.3 Fuel consumption:

Avg. fuel consumption was observed as 3.45 l/h

7.4 15% Higher speed than recommended cylinder speed**7.4.1 Rate of work**

The input rate was recorded as 3698 kg/h.

The grain output at main outlet was recorded as 1687 kg/h.

7.4.2 Quality of work

The percentage of broken grain was recorded as 1.23

The percentage of blown grain was recorded as 0.7

The percentage of unthreshed grain was recorded as 0.02

The percentage of spilled grain was recorded as 0.08

The percentage of threshing efficiency was recorded as 99.18

The percentage of cleaning efficiency was recorded as 96.67

7.4.3 Fuel consumption:

27	Recommended speed of threshing cylinder (rpm)	Must be provided	Provided	Conforms
28	Direction of rotation of threshing cylinder	Clockwise/anti-clockwise	anti-clockwise	Conforms
29	Marking/labeling	The labeling plate should be riveted on the body of machine having name & address of manufacturer, country of origin, make, model, year of manufacturer, serial number, size, required size of prime mover kW/hp	Provided with following information Name & address of manufacturer, country of origin, make, model, Sr. No. Number and size of prime mover	Conforms
30	Literature	Operator manual, Service manual and Parts catalogue should be provided	Not Provided	Does not Conforms

12. COMMENTS & RECOMMENDATIONS

1. The rated input capacity is not specified by the applicant. It **MUST** be specified.
2. Provision for adjustment of concave clearance and airflow rate is not provided on the thresher. It **MUST** be provided
3. Required tools for operation, maintenance and adjustment of various components of the thresher are not provided. It **MUST** be supplied by the manufacturer.
4. Propeller shaft guard is not provided. It **MUST** be provided with thresher.
5. The specification of feeding chute does not conform to IS: 9020- 2002 (Reaffirmed 2012). This **MUST** be taken care in future production level for safety concern of operator
6. Provision of changing cylinder/drum speed not provided. It **MUST** be provided.
7. Provision of changing blower speed not provided. It **MUST** be provided.
8. The recommended grade of lubricant and lubricating schedule is not provided. It should be provided for the guidance of user for enhancing the life of machine
9. The specification of power input connection does not conform to IS: 4931-1995. This **MUST** be taken care in future production level.
10. Operation manual is not provided. It **MUST** be provided as per IS: 8132 -1999.

TESTING AUTHORITY

Dr. ANJALI CHATTERJEE Chief Scientist	<i>Anjali</i>
Dr. SUBRATA KUMAR MANDAL Senior Principal Scientist	<i>Subrata Kumar Mandal</i>
Md. IMRAN SHEKH Senior Scientist	<i>Imran</i>

13. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's Comments
12	Point no 1 to 10	Noted the same and will take the necessary corrective action.

