

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट

INITIAL COMMERCIAL TEST REPORT

THIS TEST REPORT VALID UP TO

संख्या/No, CSIR/CMERI/FMTTC/2022/008

माह/Month: Aug, 2022

: 31st AUGUST, 2029



**JPT MANKU 4 FAN
TRACTOR OPERATED PADDY THRESHER**



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र

Farm Machinery Training and Testing Centre

सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान

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SUMMARY OF FIELD PERFORMANCE TEST

*Rated input capacity, as such was not declared by the applicant, however calculation shown in column are the one where cleaning and threshing efficiencies were maximum

Sl No.	Parameter	At short run test	At rated input capacity	At 50% Optimum input capacity	At 15% Higher rpm	At 15% Lower rpm
1	Avg. Field rate (kg/h)	3219	3581	3548	3732	3563
2	Avg. Output from main outlet (kg/h)	1383	1632	804	1424	1040
3	Avg. Grain-crop ratio	0.48:1	0.49:1	0.47:1	0.44:1	0.42:1
4	Avg. Percentage of losses (%)					
	Broken	1.18	0.98	0.64	1.24	0.53
	Blown	0.86	0.78	0.14	0.6	0.35
	Unthreshed	0.26	0.17	0.05	0.02	0.13
5	Spilled					
		0.05	0.018	0.01	0.07	0.08
	Avg. total machine losses (%)	2.35	1.948	0.84	1.93	1.09
	Avg. Efficiency (%)					
6	Cleaning	98.84	99.14	97.81	95.62	98.25
	Threshing	98.26	98.94	97.26	99.15	97.26
7	Average Fuel consumption (l/h)	3.75	3.62	3.15	3.86	2.8

7.1 At Short run Test**7.1.1 Rate of work**

The input rate was recorded as 3490 to 3540 kg/h.

The grain output at main outlet was recorded as 1530 to 1598 kg/h.

7.1.2 Quality of work

The percentage of broken grain was recorded as 0.98 to 1.230

The percentage of blown grain was recorded as 0.535 to 1.08

The percentage of unthreshed grain was recorded as 0.25 to 0.32

The percentage of spilled grain was recorded as 0.041 to 0.058

The percentage of threshing efficiency was recorded as 97.96 to 98.60

The percentage of cleaning efficiency was recorded as 97.84 to 98.53

7.1.3 Fuel consumption

Avg. fuel consumption was observed as 3.50 to 3.92 l/h.



		machine having name & address of manufacturer, country of origin, make, model, year of manufacture, serial number, size, required size of prime mover & Whp	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. SUHRATA KUMAR MANDAL Senior Principal Scientist	<i>Suhrata kumar Mandal</i>
Mr. 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.

