

व्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT

संख्या/ No.: IMP-1031/2619/2020  
माह/ Month: December, 2020

**THIS TEST REPORT VALID UP TO : 31<sup>st</sup> DECEMBER, 2027**



**CLAAS LINER 370, HAY RAKE  
(TRACTOR MOUNTED)**



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि, सहकारिता एवं किसान कल्याण विभाग

Department of Agriculture, Cooperation and Farmers Welfare

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Northern Region Farm Machinery Training and Testing Institute

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**5. RUNING-IN**

The Liner 370 Hay Rake was run-in for 0.90 hours in loose straw of Paddy prior to start of the test as per the recommendation of the applicant.

**6. FIELD TEST:**

The Liner 370 Hay Rake driven by John Deere 5055 E V3 tractor at engine throttle setting corresponding PTO speed of 540 rpm was tested in the field for 22.28 hrs for collecting of loose straw after Paddy harvesting by combine harvester. During test, field performance of Liner 370 Hay Rake was assessed with regard to quality of work, rate of work, fuel consumption, safety and soundness of construction etc. The atmospheric condition and performance parameter as observed during field tests are also given in **Annexure-I** and summarized in **Table-2**.

**Table-2: Summary of field performance test.**

Sr. No.	Observations	Range of observations
1.	Speed of operation, kmph	8.92 to 9.17
2.	Width of cut, m	2.68 to 2.75
3.	Over lap percent, %	5.17 to 7.59
4.	Rate of work, ha/h	2.051 to 2.503
5.	Fuel consumption	
	l/h	4.90 to 5.92
	l/ha	2.22 to 2.78
	l/t	0.27 to 0.43
6.	Field efficiency, %	85 to 90
7.	Hay charge transported	
	t/h	13.22 to 18.08
	t/l	2.32 to 3.67
8.	Straw collecting efficiency, %	87 to 91

**RATE OF WORK AND FUEL CONSUMPTION:**

During test, the speed of operation varied from 8.92 to 9.17 kmph for Paddy straw collection in windrows. The output (area covered) varied from 2.051 to 2.503 ha/h. & the average hourly fuel consumption varied from 4.90 to 5.92 l/h, the fuel consumption per unit area from 2.22 to 2.78 l/ha.

**Quality of work:**

- (i) The field efficiency ranged from 85 to 90 %.
- (ii) Hay collection in windrows ranged from 13.22 to 18.08 t/h
- (iii) The straw collecting efficiency ranged from 87 to 91 %.

**7. ADJUSTMENTS, DEFECTS, BREAKDOWN AND REPAIR**

No breakdown occurred during 22.28 hrs of machine operation.

**8. CRITICAL TECHNICAL SPECIFICATIONS**

Deferred till 31.03.2021 vide Ministry O.M. No 13-13/2020 M&T, (I&P) dated 22.12.2020

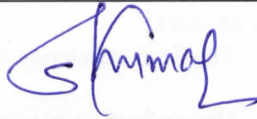

**9. COMMENTS AND RECOMMENDATIONS**

- 9.1 The Dimension of three point linkage of implement does not conform, in toto, to the requirements of IS: 4468(Part-1)-1997 and therefore, it may be looked into for corrective action.
- 9.2 The Dimensions of PIC of implement does not conform, in toto, to the requirements of IS: 4931-1995 and therefore, it may be looked into for corrective action.
- 9.3 The Dimensions of PIC Yoke bore of implement does not conform, in toto, to the requirements of IS: 4931-1995 and therefore, it may be looked into for corrective action.
- 9.4 The language used in labelling plate is Non-Indian language, which is as good as nothing. The same **MUST** be provided in English / Indian language.
- 9.5 The labelling plate should be riveted on the machine with the following information.
- i) Name and address of manufacturer
  - ii) Country of origin
  - iii) Make
  - iv) Model
  - v) Year of manufacturer
  - vi) Serial number
  - vii) Type
  - viii) Size
  - ix) Required size of prime mover (kW)

**10. Technical Literature:**

The "Operator cum service manual and parts catalogue" was provided with the machine for reference during test. However, needs to be updated as per IS: 8132-1999.

**TESTING AUTHORITY**

SANJAY KUMAR AGRICULTURAL ENGINEER	
P.K. PANDEY DIRECTOR	

Draft test report compiled by Deny Hasnu Sr. Technician

**11. APPLICANT'S COMMENTS**

No comments received from the applicant.