

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या/ No.: Machine-28/2655/2021
माह/Month: January, 2021

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



**CLAAS, ROLLANT 520, ROUND BALER
(TRACTOR OPERATED)**



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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[ISO 9001:2015 CERTIFIED]

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5. RUNNING-IN

The Round baler was Run-in for 1.00 hour before the actual test. All the fasteners were checked and tightened thereafter.

6. FIELD PERFORMANCE TEST

After the harvesting of paddy crop, by a combine harvester, a Mulcher was operated in the field followed by hay rake operation to make the windrows. The baler was operated to make bales from the windrows. The field tests were conducted for 24.44 (including 2.50 hr of running in) hours in the paddy field. During the field the tractor was operated at 540 P.T.O speed. In all, 4 test trials were conducted in paddy straw field. The detailed test results are represented in the ANNEXURE- I and summarized in the ensuing table:

Sl.No.	Parameters		Range
1.	Tractor used	:	Sonalika worldtrac 90RX4WD
2.	Type of straw	:	Paddy
3.	Avg. straw moisture, (%)	:	32.6 to 39.4
4.	Avg. forward speed, (kmph)	:	1.38 to 1.40
5.	Avg. Area covered, (ha/h)	:	0.075 to 0.093
6.	Avg. Time required for one hectare, (h)	:	10.76 to 13.28
7.	Avg. Field efficiency, (%)	:	30 to 36
8.	Avg. weight of each bale, (kg)	:	299.5 to 406.1
9.	No. of bales per hours	:	10 to 13
10.	Bales output,		
		-t/ha :	43.33 to 61.05
		-t/hr :	3.64 to 5.08
11.	Straw recovery, (%)	:	74 to 92
12.	Bale density, (kg/m ³)	:	176.67 to 257.04
13.	Time between two bale,(sec)	:	199.8 to 318.0
14.	Fuel consumption		
		- l/h :	6.00 to 6.14
		- l/ha :	65.66 to 81.02
		- l/t :	1.20 to 1.65

6.1 Rate of work

- The rate of work was recorded as 0.075 to 0.093 ha/h and the speed of operation varies from 1.38 to 1.40 kmph.
- The time required to cover one hectare was recorded as 10.76 to 13.28 h.
- The number of bales in hay was recorded as 10 to 13 bales per hour.
- The mass of the bale varied from 299.5 to 406.1 kgs.
- The bale output was observed as 43.33 to 61.05 t/ha and 3.64 to 5.08 t/hr

6.2 Quality of tying and knotting the bale :

- Satisfactory.

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6.3 Quality of work :

- The field efficiency and straw recovery varied from 30 to 36% and 74 to 92% respectively.
- Bale density was recorded as 176.67 to 257.04 kg/m³.

6.4 Adequacy of power of prime mover

The power of prime mover was found adequate.

7. EASE OF OPERATION & ADJUSTMENTS

No Noticeable difficulty was observed during the test.

8. DEFECTS, BREAKDOWNS AND REPAIR

No Noticeable defect or breakdown was observed during the test

9. CRITICAL TECHNICAL SPECIFICATION

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

10. COMMENTS & RECOMMENDATIONS

- 10.1** The dimensions of primary PIC of implement does not conform, in toto, to the requirement of IS: 4931-1995 and therefore, it may be looked into for corrective action.
- 10.2** The details in the labeling plate may be inscribed in the English only. If use of more than one language is at all necessary, they must be Indian languages. The labeling plate must be riveted to the machine and should contain, inter alia, 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)
- 10.3** The tractor provided by the applicant was International Worldtrac 90RX4WD. But the power of the tractor was not mentioned in its labeling plate. Nor has the applicant furnished it in their application/specification sheet. It must be provided for the guidance of users.
- 10.4** A fire extinguisher must be provided with the machine.



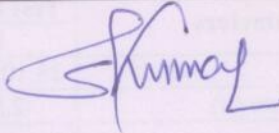
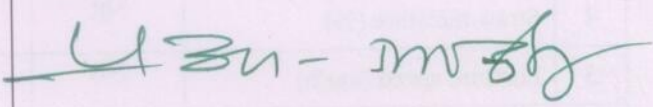
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11. TECHNICAL LITERATURE

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 Er. Manoj Sharma, and Deny Hasnu, Senior Technician.

12. APPLICANT'S COMMENTS

We will take corrective action in future production as per IS standards.

