

ब्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT (1st Batch)

संख्या/ No.: MACHINE-19/2557/2020
माह/Month: October, 2020

THIS TEST REPORT VALID UP TO : 31st OCTOBER, 2025



**NEW HOLLAND, BC5060, SQUARE BALER,
TRACTOR OPERATED
(FIRST BATCH)**



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

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[ISO 9001:2015 CERTIFIED]

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Machine – 19/2557/2020	NEW HOLLAND, BC5060, SQUARE BALER , TRACTOR OPERATED COMMERCIAL (FIRST BATCH) TEST
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7. TURNING RADIUS AND TURNING SPACE

Turning radius and turning space (with tractor and baler combination)

Minimum radius of turning circle, (m)	:	Transport Condition	Field Condition
LHS	:	11.30	9.67
RHS	:	9.70	10.52
Minimum radius of turning space, (m)	:		
LHS	:	11.64	10.10
RHS	:	10.04	10.86

8. FIELD PERFORMANCE TEST

The field tests were conducted for 26 (including 0.67 hr of running in) hours in the paddy field. During the field the tractor was operated at 540 P.T.O speed. In all, 5 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	:	New Holland, 3630 TX Plus
2.	Type of straw	:	Paddy
3.	Avg. straw moisture, (%)	:	16 to 46
4.	Avg. forward speed, (kmph)	:	2.38 to 3.70
5.	Avg. Area covered, (ha/h)	:	0.207 to 0.396
6.	Avg. Time required for one hectare, (h)	:	2.53 to 4.83
7.	Avg. Field efficiency, (%)	:	67 to 85
8.	Avg. weight of each bale, (kg)	:	16.84 to 25.42
9.	No. of bales per hours	:	182 to 340
10.	Bales output,		
		-t/ha :	14.26 to 20.75
		-t/hr :	4.63 to 7.15
11.	Straw recovery, (%)	:	95 to 97
12.	Bale density, (kg/m ³)	:	107.21 to 166.23
13.	Time between two bale,(sec)	:	9.9 to 17.3
14.	Fuel consumption		
		- l/h :	2.76 to 3.86
		- l/ha :	9.43 to 11.58
		- l/t :	0.53 to 0.84
15.	P.T.O. power utilized, kW	:	17.42 to 17.57

8.1 Rate of work

- The rate of work was recorded as 0.207 to 0.396 ha/h and the speed of operation varies from 2.38 to 3.70 kmph.
- The time required to cover one hectare was recorded as 2.53 to 4.83 h.
- The number of bales in hay was recorded as 182 to 340 bales per hour.
- The mass of the bale varied from 16.84 to 25.42 kgs.
- The bale output was observed as 14.26 to 20.75 t/ha and 4.63 to 7.15 t/hr

8.2 Quality of tying and knotting the bale :

- Satisfactory.

8.3 Quality of work :

- The field efficiency and straw recovery varied from 67 to 85 % and 95 to 97. % respectively.
- Bale density was recorded as 107.21 to 166.23 kg/m³.

8.4 Adequacy of power of prime mover

The power of prime mover was found adequate.

9. EASE OF OPERATION & ADJUSTMENTS

No Noticeable difficulty was observed during the test

10. DEFECTS, BREAKDOWNS AND REPAIR

No Noticeable defect or breakdown was observed during the test

11. CRITICAL TECHNICAL SPECIFICATION

Deferred till 31.12.2020 vide Ministry O.M. No 13-13/2020 M&T, (I&P) dated 24.04.2020


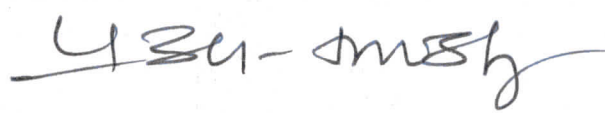
12. COMMENTS & RECOMMENDATIONS

- 12.1 Manufacturer has declared in specification 37 kW (50 hp) and above tractor is suitable for this model of baler, whereas the operator's manual the tractor power was declared at least 45 kW (62 hp). **This is misleading to the users** and calls for necessary action.
- 12.2 The chemical composition of stationary blades does not conform, in toto, to the requirements of IS: 1511-1999. This needs to be looked into for corrective action.
- 12.3 Safety device on pickup tine assembly drive is not provided. It should be looked into.
- 12.4 Technical literature:
The following Technical literature provided by the applicant
- i) Operator's manual
 - ii) Service manual and
 - iii) Service parts catalogue
- However, the same needs to be updated as per IS: 8132-1999

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13.32	Overall dimensions, mm		
	Length		
	- Transport	6250	5620
	- Field	7100.0	6040
	Width	2875.0	2450
	Height	1635.0	1885
13.33	Mass, kg	1570.0	1614
13.34	Stand	Provided	Provided

TESTING AUTHORITY:

SANJAY KUMAR AGRICULTURAL ENGINEER	
P.K. PANDEY DIRECTOR	

Test Report compiled by C.Veeranjaneyulu, Senior Technician

13. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant comments
13.1	12.1	We will correct it as per the declared specification.
13.2	12.2	We will improve the chemical composition of stationery blade and provide it in future regular production level.
13.3	12.3	We will provide safety drive for pick up unit for regular production.
13.4	12.4	We will provide the literature as per the IS: 8132-1999.

