प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट संख्या/No. : T- 1818/2349/2024 INITIAL COMMERCIAL TEST REPORT माह/Month : January, 2024

Application Reference No. 28/2022-23/141 (यह परीक्षण रिपोर्ट 31/01/2029 तक वैध है / THIS TEST REPORT IS VALID UPTO 31/01/2029)



Make of Agricultural Tractor: NEW HOLLAND

Model : 5630 TX A1

Manufactured by : CNH Industrial (India) Pvt. Ltd.

Plot No.-03, Udyog Kendra, Greater Noida - 201 306, Distt. Gautam Budh Nagar,

Uttar Pradesh, India.



भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय (कृषि एवं किसान कल्याण विभाग)

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE (DEPARTMENT OF AGRICULTURE & FARMERS WELFARE)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान ट्रैक्टर नगर, बुदनी (म.प्र.) 466 445

CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE

TRACTOR NAGAR, BUDNI (M.P.) 466 445 (An ISO 9001:2015 Certified Institute)

E-mail: fmti-mp@nic.in Web site: http://www.fmttibudni.gov.in Telephone: 07564-299003

Page 1 of 35

T- 1818/2349/2024	NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST
1 1010/2040/2024	THIS TEST REPORT IS VALID UPTO: 31/01/2029

IMPORTANT INFORMATION

The Government of India, Ministry of Agriculture and Farmers Welfare has directed, vide a OM No. 13-17/2021-M&T (I&P) dated 28.07.2022, that since 15th August, 2022, only mandatory tests will be carried out on a tractor unless applicant has expressly requested for optional tests as well, mentioned in the above captioned OM.

In the instant case, there is no request from the applicant to carry out the optional tests hence only Mandatory Tests, as given below, have been conducted and reported in this report: -

- 1. PTO performance
- 2. Hydraulic performance
- 3. Drawbar performance
- 4. Brake performance

Month: January Test Report No.: T-1818/2349/2024 Year: 2024



GOVERNMENT OF INDIA
CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE
TRACTOR NAGAR, BUDNI (MADHYA PRADESH) 466445, INDIA

E-mail: fmti-mp@nic.in

Web site:http://www.fmttibudni.gov.in

Telephone: 07564-299003

CENTRAL FARM MACHINERY TRAINING AND TESTING INSTITUTE - BUDNI

Page 2 of 35

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

There is apparently a "Three Modes" in the tractor. The applicant has christened the different mode as "Power, ECO and ECO+". However, the applicant vide letter no. PD-PV 210216 dated 22.11.2023 requested to conduct the test only on so called Power mode. Therefore, this report contains the observation on the so call "Power mode" only

[C] Tractor manufacturer's name and : CNH Industrial (India) Pvt. Ltd.,

address Plot No.-3, Udyog Kendra, Greater

Noida-201306, Distt. Gautam Budh Nagar,

Uttar Pradesh, India.

[C] Submitted for test by (Applicant) : The Manufacturer

[C] Selected for test by : The Ministry vide OM No. 13-17/2021 - M&T

(I&P) dated 28.07.2022, has allowed the applicant to submit the test sample directly to the Institute without requiring any random selection for Initial Commercial Testing. Thus, the applicant directly submitted the test sample to the Institute

for test.

[D] Place of running-in : At manufacturer's works

[D] Duration of running-in:

-Engine : 50 -Transmission : 50

[C] Location of test : Government of India,

Central Farm Machinery Training and Testing

Institute, P.O. - Tractor Nagar, BUDNI - 466445 (M.P.), INDIA

1. SPECIFICATIONS OF TRACTOR

1.1 Identification:1.1.1 Denomination

[C] Make of tractor : NEW HOLLAND [C] Model (trade name) : 5630 TX A1

[C] Type : Four Wheel Drive, Standard Agricultural Tractor

[C] Month & year of manufacture : 05/2022 [D] Country of origin : India

1.1.2 Numbers:

[D] 1st Serial No. or prototype : NHN56300ZME553388 [C] Serial No. : NHN56300ZNE606757

1.2 Engine:

[D] Manufacturer's address : TURKY TRAKTOR VE ZIRAAT MAKINELENRI

A.S, GAZI MAHALLESI, ANAD014, BULVARI NO 52-52A YENIMAHALLE ANKARA (Turkey)

[C] Make : TURK TRAKTOR VE ZIRAAT MAKINELERI,

TURKEY

[C] Model : 8035.25D.TRM4

[C] Type : Four strokes, common rail direct injection, Liquid

cooled, turbocharged, diesel engine

[C] Serial No. : 557714

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

6. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

6.1 On the basis of test conducted the performance results have been summarized as evaluative (mandatory) / Non-evaluative (Non-mandatory) parameters applicable for Qualifying Minimum Performance criteria as per Clause-4 (Table-1) of IS: 12207-2022 for acceptance of the tractor for the purpose of subsidies/NABARD financing are summarized as under:

SI. No.	Ch	aracteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2022	Values declared by the applicant/ (D) Requirement (R)	As observed	Whether meets the requirem- ents (Yes/No)
1		2	3	4	5	6	7
	MAN	DATORY TES	TS: (As per M	inistry's Office Memorandum	No. 13-17/	2021-M8	T (I&P)
6.1.1		d 28 th of July, 2 Performance:	2022).				
a)		mum power	Evaluative	Declared value to be achieved	51.5	50.1	Yes
a)	unde (kW)	r 2 h test, (Natural ent condition)	Lvaluative	with a tolerance of: ±5% for PTO power and or engine power >26 kW. ±10% for PTO power and or engine ≤ 26 kW.	(D)	30.1	163
b)	Powe	er at rated	Non	-do-	46.3	45.9	Yes
	(kW)	ne speed,	Evaluative		(D)		
с)	consi	ific fuel umption sponding to mum power, /h)	Evaluative	Should not be more than 10% of declared value.	250 (D)	254	Yes
d)		mum valent vshaft torque,	Non Evaluative	± 8%	325 (D)	311.0	Yes
e)	Back perce	-up torque, ent	Evaluative	Should be min. 12%	12, Min. (D) 12 (R)	63.2	Yes
f)	Maxir	mum operating	temperature, (OC):		_	
	1)	Engine oil	Evaluative	The declared value should not exceed the Max value specified by the oil company and the observed value under natural ambient/high ambient condition should not exceed the declaration.	132 (D)	119	Yes
	2)	Coolant	Evaluative	Observed value should not exceed the declared value or boiling point of coolant at radiator cap pressure whichever is lower. The boiling point of the coolant at radiator pressure shall be provided by the applicant.	124 (D)	107	Yes
g)	Engir consi (g/kW	umption,	Evaluative	Not exceeding 1% of SFC at Max power under natural ambient condition. The value would be based on the test conducted under natural ambient condition	2.54 Maximum (R)	0.60	Yes
h)	Smok	ke level, m ⁻¹	Evaluative	Maximum light absorption coefficient of 3.25 per meter or equivalent BOSCH No. 5.2 or 75 Hatridge value (As per CMVR). Max Smoke level shall be reported out of 6 readings tested as per IS 12062 and observed value should be well within the required limits.	3.25 per meter Maximum (R)	0.01	Yes

CENTRAL FARM MACHINERY TRAINING AND TESTING INSTITUTE – BUDI	ΝI
--	----

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

1	2	3	4	5	6	7
6.1.2	Drawbar performa					
a)	Max. drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)	Non Evaluative	Minimum 70% of static mass of tractor with ballast.	*	*	Not appli- cable
b)	Max. drawbar pull with standard ballast corresponding to 15 percent wheel slip, (kN)	Evaluative	In case of tractors having total static mass ≥ 1500 kg, Min 70% of static mass of tractor without ballast or with standard ballast, as the case may be. In case of light weight tractors having ≤ 1500 kg total static mass of tractor, Min. 65% of static mass of tractor without ballast or with standard ballast, as the case may be.	23.4 (D) 23.48 (R) Minimum	32.18	Yes
c)	Maximum drawbar power with standard ballast, (kW).	Evaluative	Minimum 80 % of PTO power as referred in SI No. i) a) of PTO performance in case of tractors having total static mass > 1500 kg Minimum 75% of PTO power as referred in SI No. i) a) of PTO performance in case of light weight tractors having ≤1500 kg total static mass of tractor. Minimum 75 % of the engine power as referred in SI No. i) a) of engine performance in case of tractors which do not have a PTO shaft.	41.2 (D) 40.1 (R) Minimum	43.5	Yes
d)	Maximum transmission oil temperature, (°C)	Evaluative	The declared value should not exceed the recommendation by the oil manufacturer. The observed value should not exceed the declared value throughout the drawbar test.	132 (D)	131	Yes
6.1.3	Power lift and hyd	raulic pump p				1
a)	Maximum lifting cap	acity througho	out the range of lift, (kN):			
	1) At hitch points	Evaluative	Should not be less than 90% of declared value.	19.61 (D) 17.65 (R) Minimum	18.56	Yes
	2) With the standard frame	Evaluative	The lift capacity should at least be 24 kg/PTO kW and it should be 21.5 kg/engine kW where the tractor is not provided with a PTO shaft.	15.30 (D) 11.79 (R) Minimum	16.20	Yes
b)	Maximum drop in the height of the point of application of the force after each 5 minutes interval for a total duration of 30 Minutes, (mm)	Non Evaluative	The observed value should not exceed 50 mm.	50 (D) Maximum	40	Yes

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

1	2	3	4	5 6	7
6.1.4	Brake performance	at 25 kmph:	-		
a)	Maximum stopping		force, equal to or less than 600	N on brake pedal v	vith road
	ballast, (m):			T	
	1) Cold brake	Evaluative	10	10 (R) 7.69	Yes
	2) Hot brake	Evaluative	10	10 (R) 7.88	Yes
b)	Whether parking	Evaluative	Yes / No	Yes Yes	Yes
	brake is effective at a force of 600 N				
	at a force of 600 N				
	400 N at hand				
	lever				
6.1.5	OPTIONAL TESTS	•	L	L L	
	As the applicant h	as not applie	d for any optional tests, there	efore no optional te	sts was
	conducted.		,	•	
6.1.6	Safety features :				
a)	Guards against	Evaluative	Belt drives, pulleys, silencer,	Meets the	Yes
	moving and hot		hydraulic pipes [As per IS	requirement	
	parts	F	12239 (Part2)]	0(
b)	Lighting	Evaluative	As per CMVR	Conforms	Yes
c)	arrangement Seating	Non	Should meet the	Does not	No
	requirements	Evaluative	requirements of IS: 12343	meet the	110
	(Tractors having	Lvaidative	(As amended from time to	requirement	
	more than 1150		time)		
	mm rear track		,		
	width)				
d)	Technical	Non	Should meet the	Conforms	Yes
	requirements for	Evaluative	requirements of IS: 4931 (As		
- ^	PTO shaft	Man	amended from time to time)	Daga not	Na
e)	Dimensions of three point linkage	Non Evaluative	Should meet the requirements of	Does not meet the	No
	unee point iirikage	Evaluative	IS: 17231:2019	requirement	
f)	Specifications of	Non	Should meet the	Meets the	Yes
,	linkage drawbar	Evaluative	requirements of IS: 12953	requirement	
			(As amended from time to	,	
			time)		
g)	Swinging drawbar	Non	Should meet the	Not fitted	Not
	(wherever fitted)	Evaluative	requirement of IS: 12362		appli- cable
			(Part 3) (As amended from		Cable
b)	Audible werning	Evaluative	time to time)	Not fitted	Not
h)	Audible warning signal on tractor	⊏valuative	If tractor travel speed in reverse gear exceeds 20	(16.20 kmph in HR	
	Signal on tractor		kmph, an audible warning	gear)	cable
			signal on tractor shall get	9501/	
			activated.		
			A sticker to the effect that		
			"operating the tractor		
			beyond 20 kmph speed in		
			reverse gear is not safe"		
			should be prominently		
			displayed.		

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

1		2	3	4	5	6	7
6.1.7	Lak			of labelling plate):		-	
	1)	Make	Evaluative	Should conform to the	New	Holland	Yes
	2)	Model	Evaluative	requirements of CMVR		TX A1	Yes
	3)	Month &	Evaluative	along-with declared value of		05/22	Yes
		Year of		PTO in kW, Specific fuel			
		manufacture		consumption (SFC)			
	4)	Engine	Evaluative	corresponding to maximum	5	557714	Yes
	-\	number		power in g/kWh and year of manufacture in numerical	A !! ! ! ! .	000071150	
	5)	Chassis	Evaluative	form	_	6300ZNE6	Yes
	C)	number	Evaluative			06757	Vaa
	6)	Maximum PTO power,	Evaluative		•	51.5	Yes
		(kW)		Digit 01-12 in box No. 1 for			
	7)	Specific fuel	Evaluative	MM will represent the month		250	Yes
	',	consumption,	Lvaldative	and next two digit in the box No. 2 for YY will represent		200	103
		(g/kWh)		the year of manufacturing.			
6.1.8	Lite	erature (Submis	sion to test a		<u>I</u>		
(a)		erator manual	Evaluative	The printed literature in	Pr	ovided	Yes
(b)		ts Catalogue	Evaluative	booklet form should be		ovided	Yes
(c)		rkshop/	Evaluative	provided as per IS 8132		ovided	Yes
		vice manual		and should submit along			
				with the test sample.			
6.1.9				Structures (ROPS):			
		tractor having	Evaluative	ROPS should meet the		fitted [Meets	Yes
		re than 1150		requirement of IS:11821	the requ	uirement of	
	mm			or OECD code or	-	vide test	
	wid	th		equivalent International	certifica		
				Standard.		15/1499976	
						2063 Dated	
					28/11/2		
						15/1499976	
					374/P20 Extensi		
						03/03/2020]	
6.1.10	Sta	ndard	Evaluative	Trailer hitch, front tow hook,		ovided	Yes
		essories		linkage drawbar should be			
		<u> </u>		provided with tractor			
6.1.11		essories	Non	Ballast weight, if fitted,	Pr	ovided	Yes
	(ob	tional)	Evaluative	should meet the requirement			
				of CMVR			

6.2	CATEGORY C	CATEGORY OF BREAKDOWNS / DEFECTS (As per clause 5.0 of IS:12207-2022):					
S. No.	Category of break-downs		Requirements as per IS: 12207-2022	As observed	Whether meets the Requirement (Yes/No)		
1.	Critical	Evaluative	There is no 'critical breakdown' during the course of testing.	None	Yes		
2.	Major	Evaluative	There are not more than 2 major breakdowns and neither of them should be of repetitive nature.	None	Yes		
3.	Minor	Evaluative	There are not more than 5 minor defects during the test and neither of them should of repetitive nature.	None	Yes		
4.	Total breakdowns	Evaluative	In no case, the total number of breakdowns should exceed five that is, (2 major + 3 minor) or (1 major + 4 minor) or 5 minor breakdowns.	None	Yes		

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

6.3 Conformity with following IS:

i)	Guidelines for declaration of power and specific fuel consumption and	:	Conforms
	labeling of agricultural tractors (First revision) [IS:10273 -1987 (Reaffirmed		
	Year 2019)]		

- ii) Agricultural tractors Rear mounted power take-off Types 1, 2 and 3 (third : Conforms revision) [IS:4931-1995 (Reaffirmed Year 2019)]
- iii) Agricultural wheeled tractors Rear mounted three-point linkage: Part 1 : Does not Categories 1N, 1, 2N, 2, 3N, 3, 4 & 4N [IS:17321-2019] : conform
- iv) Drawbar for agricultural tractors Link type [IS 12953:1990 (Reaffirmed Year: Conforms 2022)]
- v) Agricultural tractors- Operator's seat technical requirement [IS12343 2021] : Does not conform
- vi) Guide for safety & comfort of operator of agricultural tractors:Part 1 General : Does not requirements (first revision):[IS 12239 (Part 1) 2018] conform
- vii) Tractors and machinery for agriculture and forestry Technical means for ensuring safety Part 2: Tractors (first revision) (IS 12239 (Part 2) 1999) conform (Reaffirmed Year 2019)]
- viii) Guide lines for location and operation of operator controls on agricultural tractors and machinery [IS: 8133 2021] Conform
- Tractors and machinery [rs. 6133 2021]

 Tractors and machinery for agriculture and forestry, powered lawn and garden equipment Symbols for operator controls and other displays Part2

 Symbols for agricultural tractors and machinery [IS: 6283(Part-1) 2006

 (Reaffirmed Year 2019) and IS: 6283 (Part-2) 2007 (Reaffirmed Year 2019)]
- x) Agricultural Tractors and Machinery-Lighting device for travel on public roads : Conforms (IS:14683-1999) (Reaffirmed Year 2019)]

6.4 Salient Observations:

6.4.1 Dimension of Three Point Linkage:

The dimensions viz. width of ball of upper hitch points & lower hitch point tyre clearance does not meet the requirements of IS: 17231:2019 and needs to be looked into for necessary corrective actions.

6.4.2 Operator's seat:

The following parameters does not meet the requirement of IS: 12343-2021:

- i) Provision for adjustment of driver's mass has been specified as 50 to 120 kg against the requirement of 40 to 100 kg.
- ii) Vertical distance of SIP from accelerator pedal has been measured as 495 mm against the requirement of 230 to 460 mm.
- iii) Longitudinal distance of SIP from accelerator pedal has been measured as 200 mm against the requirement of 410 to 720 mm
- iv) Vertical distance of SIP from foot rest has been measured as 550 mm against the requirement of 450 to 550 mm.

Therefore, all of the above should be looked into for necessary corrective action.

6.4.3 Operator's work place:

The following parameters does not meet the requirement of IS: 12239 (Part-I) 2018.

- i) Vertical retainers on inner side of clutch and brake pedals have not been provided.
- ii) Spark arresting device has not been provided in the exhaust system.

Therefore, all of the above should be looked into for necessary corrective action.

6.4.4 PTO master shield:

PTO master shield has not been provided on tractor as per IS: 12239-1999 (Part-2). This should be looked into for necessary corrective action.

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

6.4. 5 Specification of Tractor

Discrepancies in the specification between the Specification sheet and Operator's manual are as under:

S. No.	Description	As per Specification Sheet	As per Operator's manual
i)	Brand name of coolant	AMBRA AGRIFLU-OT	ASTM D 3306
			(P. No. 9-9)
ii)	Front axle & front final	8.0	5 (Front axle)
	drive oil capacity (I)		1.25 each side
			(front final drive)
			(P. No. 9-9)

6.5 Maintenance / Service Problems:

No noticeable maintenance or service problem was observed during the test.

6.6 Recommendation with regard to safety on tractor:

- i) Colour codes on illuminated display has not been provided as per the requirement as laid down in IS: 6283 (Part 2): 2007.
- ii) Identification of PTO engage lever by colour has not been provided as per the requirement as laid down in Table 5 of IS: 8133-2021.
- iii) The hand accelerator lever, when moved away from the operator (i.e. forward) decreases the engine speed, which does not meet the requirement as laid down in Table 1 of IS: 8133-2021.
- iv) The working clearance between mudguard & PTO clutch has been measured as 30 mm against the minimum requirement of 70 mm as per the requirement of IS: 12239 (Part II) 2019

Above parameters should be looked into for necessary corrective action.

6.7 Adequacy of Literature supplied with machine:

- **6.7.1** The following literatures were supplied with the test tractor for reference during the test:
 - a) Operator Manual for "New Holland 5620TX A1, 5620TX A2, 5620TX A3, 5620TX A4, 5630TX A, 5630TX A1, 5630TX A2, 5630TX A3" tractor models.
 - b) Parts catalogue for "New Holland 5620TX A1, 5620TX A2, 5620TX A3, 5620TX A4, 5630TX A, 5630TX A1, 5630TX A2, 5630TX A3" tractor models..
 - c) Service manual Part I, II & III for "New Holland 5620TX A1, 5620TX A2, 5620TX A3, 5620TX A4, 5630TX A, 5630TX A1, 5630TX A2, 5630TX A3" tractor models.
- 6.7.2 The operator manual may be brought out for the guidance of users and service personnel as per IS: 8132-1999 incorporating, inter alia, the following:
 - i) Recommended ballast masses for different operations.
 - ii) Safe hitch height while using trailer.
 - iii) Coolant water ratio

NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST

THIS TEST REPORT IS VALID UPTO: 31/01/2029

TEST CARRIED OUT AT C.F.M.T. & T.I., BUDNI (M.P.), INDIA

TESTING AUTHORITY

B.N DIXIT AGRICULTURAL ENGINEER	
R.P. PANDEY SENIOR INSTRUMENTATION ENGINEER	Rander
A. K. UPADHYAY DIRECTOR (I/C)	My

Draft Test Report compiled by Poonam Khurasia, Senior Technical Assistant.

7. APPLICANT'S COMMENTS

Para no	Our reference	reference Applicant's comments	
7.1	6.4.1, 6.4.2, 6.4.3, & 6.4.4	Your valuable comments and suggestions for improvement are well taken. Under our policy of continuous product improvement, these aspects are being looked into further, and we will take appropriate action to eliminate these deviations soon wherever necessary.	
7.2	6.4.5 & 6.7.2	We will study this further, and appropriate action will be taken.	

T- 1818/2349/2024	NEW HOLLAND, 5630 TX A1 - INITIAL COMMERCIAL TEST
	THIS TEST REPORT IS VALID UPTO: 31/01/2029

ANNEXURE-I

TRACTOR RUN HOURS DURING TEST

A.	LABORATORY AND TRACK TESTS:	HOURS
1.	Running-in	Applicant has declared it to be conducted on
		their work place.
2.	PTO performance test	16.2
3.	Power lift and hydraulic pump performance test	4.2
4.	Drawbar performance test	6.6
5.	Brake performance test	2.0
6.	Nominal speed test	2.0
B.	Miscellaneous test and other run hours including	2.0
	idle run, transportation, trials and preparation for	
	test	
TOTAL:		33.0