



**NEW HOLLAND INDIA, NEW HOLLAND 3630 TX
TURBO SUPER 12+3 UG TRACTOR**



भारत सरकार

GOVERNMENT OF INDIA

कृषि मंत्रालय (कृषि एवं सहकारिता विभाग, मशीनीकरण एवं प्रोद्योगिकी प्रभाग)

Ministry of Agriculture (Deptt. of Agri. & Co-op, Mechanization & Technology Division)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE

(An ISO : 9001-2008 Certified Institute)

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3. ESSENTIAL TESTS

3.1 SPECIFICATIONS

3.1.1 Tractor:	Base Model	Variant Model
Make	: NEW HOLLAND INDIA	
Model	: New Holland 5500 TURBO SUPER 12+3 UG	: New Holland 3630 TX TURBO SUPER 12+3 UG

Variants ,if any:

S.No	Variant models *	Variant features
1.	New Holland 5500 DT Turbo super 12+3 UG	With four wheel drive version
2.	New Holland 3630 TX Turbo super 12+3 UG	With TX metal styling

Type	: Four wheeled, rear wheel drive, general purpose, agricultural tractor.
Year of manufacture	: 2011 (L1)
Chassis serial number	: 2190367
Country of origin	: India
3.1.2 Engine:	
Make	: Iveco
Model	: 8035.25.720
Type	: Four stroke, turbocharged, liquid cooled, direct injection, diesel engine.
Serial number	: 080845DT
Country of origin	: Italy
Engine speed (rpm), (Manufacturer's recommended production setting):	
- Maximum speed at no load	: 2450 to 2600
- Low idle speed	: 600 to 700
- Speed at maximum torque	: 1200 to 1600
Rated speed, (rpm):	
- For PTO use	: 2300
- For drawbar use	: 2300
3.1.3 Cylinder & Cylinder Head:	
Number	: 2300
Disposition	: Three
Bore/stroke, (mm)	: Vertical, Inline
Capacity as specified by the applicant, (cc)	: 104 / 115
Compression ratio	: 2931
Type of cylinder head	: 18:1±0.5
Type of cylinder liners	: Mono block
Type of combustion chamber	: Dry, replaceable
Arrangement of valves	: Re-entrant, omega Shape
Valve clearance (cold/hot):	: Overhead
- Inlet valve, (mm)	: 0.30/0.30
- Exhaust valve, (mm)	: 0.30/0.30
3.1.4 Fuel System:	
Type of fuel feed system	: Gravity and force feed



3.1.4.1 Fuel tank:	Base Model	Variant Model
Capacity, (l)	: 62.70	: 62.70
Location	: Above clutch housing	
Provision for draining of sediments/ water	: Not provided	: Not provided
Material of fuel tank	: HDPE (apa)	: HDPE (apa)
3.1.4.2 Water separator:		
Make	: Alert	
Type	: Inverted funnel, gravity separation.	
Location	: On RHS of engine in between fuel tank & feed pump.	
3.1.4.3 Fuel feed pump:		
Make	: Iveco	: Iveco
Type	: Diaphragm	: Diaphragm
Model/Group combination No.	: Not available	: Not available
Provision of sediment bowl	: None	: None
Method of drive	: Through timing gears	
3.1.4.4 Fuel filters:		
Make	: New Holland (apa)	: New Holland (apa)
Model/Group combination No.	: 479 5600 EC 77 3150	: 479 5600 EC 77 3150
Number	: Two	: Two
Type of elements:		
-Primary	: Paper	: Paper
-Secondary	: Paper	: Paper
Capacity of final stage filter, (l)	: 0.50	: 0.50
3.1.4.5 Fuel Injection pump:		
Make	: Bosch, India	: Bosch, India
Model/Group combination No.	: 0460 423 063	: 0460 423 063
Type	: Rotary	: Rotary
Serial number	: 08825	: 08825
Method of drive	: Through timing gears	
3.1.4.6 Fuel injectors:		
Make	: Bosch, India	: Bosch, India
Holder Number	: F002 C70 567 108	: F002 C70 567 108
Nozzle Number	: DSLA 142P 5565	: DSLA 142P 5565
Type	: Multi hole (six holes)	: Multi hole (six holes)
Manufacturer's production pressure setting, (MPa)	: 25.5	
Injection timing	: 0.35 ± 0.1 mm plunger lift at TDC	: 0.35 ± 0.1 mm plunger lift at TDC
Firing order	: 1 - 2 - 3	: 1 - 2 - 3
3.1.4.7 Governor:		
Make	: Bosch, India	
Model/Group combination No.	: In built with fuel injection pump	
Type	: Mechanical, centrifugal variable speed	
Governed range of engine speed, (rpm)	: 600 to 2600	



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7. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

7.1 On the basis of test conducted the performance results have been summarized as evaluative (mandatory) and non - evaluative (not mandatory) parameters applicable for qualifying Minimum Performance Criteria as per clause-4 table-1 of Indian Standard 12207: 2008 for acceptance of tractor for the purpose of subsidies/NABARD financing for the applicable features for this tractor model.

Sl. No.	Characteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2008	Values declared by the applicant/ Requirement		Whether Variant model meets the requirements (Yes/ No.)
				Base model	Variant model	
1	2	3	4	5	6	7
7.1.1	Labelling of tractors (Provision of labelling plate):					
1)	Make	Evaluative	Should conform to the requirements of CMVR along-with declared value of PTO HP	New Holland India	New Holland India	Yes
2)	Model	Evaluative		New Holland 5500 TX TURBO SUPER 12+3 UG	New Holland 3630 TX TURBO SUPER 12+3 UG	Yes
3)	Year of manufacture	Evaluative		L110	L110	Yes
4)	Engine number	Evaluative		080845DT	080845DT	Yes
5)	Chassis number	Evaluative		2190367	2190367	Yes
6)	Declaration of PTO power, kW (Ps)	Evaluative		37.3(50.7)	37.3(50.7)	Yes

7.2 Salient Observations:**7.2.1.2 Three point linkage:**

- The width of ball of upper & lower hitch points conforms to category-I whereas the diameter of hitch pin holes conforms to category-II. Therefore, it is recommended that, both should be provided as per category-I or Category-II.
- The distance from end of Power take-off to centre of lower hitch point (lower link in horizontal position) does not meet the requirement of IS: 4468 (Part-1)-1997. This should be looked into for necessary corrective action.

7.2.1.3 Specifications of Power Take Off Shaft:

The dimensions 'dø' of the Power take-off shaft does not meet the requirement of IS: 4931-1995. This should be looked into for necessary corrective action.

7.3 Maintenance / Service Problems:

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

7.4 Recommendation with regard to saety on tractor:

The following requirements, inter alia, may be considered for incorporation on the tractor:



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- Power take-off shield for the PTO shaft may be provided.
- Provision for spark arresting device in exhaust system.
- The working clearance between main gear shifting lever (when engaged in reverse gear) & the mudguard is not provided as per the above indian standard: 12239 (Part-2) - 1999.

7.5 Adequacy of Literature supplied with machine:

The following literature has been supplied for the tractor.

- Operator manual for 7500, 6500 & 5500 turbo super model tractors.
- Service manual for 7500, 6500 & 5500 turbo super model tractors
- Service Part's catalogue for 7500, 6500 & 5500 turbo super model tractors
- Service Part's catalogue Trem 3A Supplementary for 7500, 6500 & 5500 turbo super model tractors

7.5.1 Information on variant models & their features at a glance shall also be included in the operator's manual.

7.5.2 The literature supplied was found adequate. However the literature should be developed in national as well as regional languages also.

The results of the tests carried out on variant model "New Holland India, New Holland 3630 TX Turbo Super 12+3 UG" have been compared with those on base model "New Holland India, New Holland 5500 Turbo Super 12+3 UG" and found within the limit, as specified in Indian Standard:12207-2008.

8. CITIZEN CHARTER

Time frame for Testing & Evaluation as per Citizen Charter	Duration of Test	Whether the Test Report is released within the time frame given in Citizen Charter	Remarks
10 Months	1 Months (August, 2013)	Yes	None

TESTING AUTHORITY:

P.K. Verma
P.K. VERMA
SENIOR AGRICULTURAL ENGINEER

C.R. Lohi
C.R. LOHI
DIRECTOR

Test Report compiled by: Shri. Chanchlesh Singh Raghuwanshi, Senior Technical Assistant.

9. Applicant's Comments

Para No.	Our Reference	Applicant's comments
9.0	3.1.15.1, 7.2.1.3, 3.1.13.2.1b, 7.2.1.2.i, 3.1.13.2.v, 7.2.1.2.ii, 3.1.21.4, 7.4, 3.1.21.5, 7.4, 7.5.1 & 7.5.2	Your valuable comments & suggestions for improvements are well taken. Under our policy of continuous product improvement these aspects are further being looked into & will take appropriate actions to eliminate these deviations soon wherever necessary.