

Application Reference No. 28/2022-23/136

(यह परीक्षण रिपोर्ट 31/10/2028 तक वैध है / THIS TEST REPORT IS VALID UPTO 31/10/2028)



**Make of Agricultural Tractor : Mahindra**  
**Model : Novo 605 DI PP V1**  
**Manufactured by : Mahindra & Mahindra Limited**  
(Farm Equipment Sector)  
Mahindra Research Valley, Mahindra World City,  
Plot no. 41/1, Anjur P.O.,  
District Chengalpattu – 603 004.



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)**

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## 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 15<sup>th</sup> 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: October	Test Report No.: T-1790/2321/2023	Year: 2023
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There is apparently a “**Multi Drive Mode Switch (MDM)**” in the tractor. The applicant has christened the different modes as “Diesel Saver, Normal and Power Mode”. However, institute was requested vide letter no. FD/BVH/ICT/NOVO605DIPPV1/22-23/02 dated 23.08.2023 to conduct the tests only on so called “Power mode”. Therefore, this report contains the observation on the so called “**Power Mode**” only.

[C]	Tractor manufacturer’s name and address	: <b>M/s. Mahindra &amp; Mahindra Limited (Farm Equipment Sector)</b> Mahindra Research Valley, Mahindra World City, Plot no. 41/1, Anjur P.O., District Chengalpattu – 603 004.
[D]	Location of tractor assembly	Mahindra & Mahindra Limited (Farm Equipment Sector) : (i) Akurli Road, Kandivali (E), Mumbai – 400 101 (ii) MIDC Hingna Road, Nagpur– 440 028 (iii) Khatima Panipat Highway, Rudrapur, Udhamsingh Nagar – 263 153. (iv) Jaipur Ajmer Road, Jaipur– 303 007 (v) Near Bidar “T” Junction, Mahindra Nagar, Zaheerabad- 502 220 (vi) Mahindra Research Valley, Mahindra World City, Plot no. 41/1, Anjur P.O., District Chengalpattu – 603 004
[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 (h):	
	-Engine	: 30
	-Transmission	: 32
[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	: Mahindra
[C]	Model (trade name)	: NOVO 605 DI PP V1
[C]	Type	: Two Wheel Drive, Standard Agricultural Tractor.
[C]	Month & year of manufacture	: 02/23
[D]	Country of origin	: India

#### 1.1.2 Numbers:

[D]	1 <sup>st</sup> Serial No. of prototype	: MBNWEDB9VNNG00001
[C]	Serial No.	: MBNWEDB9VPNL00006

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<b>1.2</b>	<b>Engine:</b>	
[D]	Manufacturer's address	: Mahindra & Mahindra Limited (Farm Equipment Sector), i) Akurli Road, Kandivali (E), Mumbai - 400101 ii) MIDC, Hingna Road, Nagpur – 440028 iii) Jaipur Ajmer Road, Jaipur – 303 007 iv) Khatima Panipat Highway, Rudrapur, Udhamsinghnagar, 263 153 v) Near Bidar "T" junction, Mahindra Nagar, Zaheerabad – 502 220 vi) Mahindra Research Valley, Mahindra World City, Plot No.41/1, Anjur P.O., District, Chengalpattu – 603 004
[C]	Make	: Mahindra
[C]	Model	: MTMSC38NA060TR4
[C]	Type	: Four stroke, liquid cooled, naturally aspirated, common rail direct injection, diesel engine.
[C]	Serial No.	: NPL5SDE0066
<b>1.2.1</b>	<b>Cylinders:</b>	
[C]	Number/disposition	: Four, vertical, in-line
[D]	Bore / Stroke, (mm)	: 96 / 132
[D]	Capacity, cm <sup>3</sup>	: 3822
[D]	Compression ratio	: 18.5:1 (±1)
[D]	Arrangement of valves	: Overhead, inline
[D]	Cylinder liners	: Wet, replaceable
[D]	Type of combustion chamber	: Re-entrant bowl (hemispherical)
<b>1.2.2</b>	<b>Supercharging</b>	: <b>Not available</b>
<b>1.2.3</b>	<b>Fuel system:</b>	
[C]	Fuel feed system	: Gravity and force feed
	<b>Filter(s):</b>	
	<b>Main Filter</b>	
[C]	Make	: UFI
[C]	Model	: 2424830
[C]	Type	: Spin on with primer and replaceable bowl.
[C]	Number(s)	: One
	<b>Protect filter</b>	
[C]	Make	: Bosch
[C]	Model	: F002 H25 037
[C]	Type	: Aluminum bowl with replaceable element (cartridge)
[C]	Number(s)	: One
[D]	Capacity of fuel tank, (l)	: 60.0
	<b>Injection pump:</b>	
[C]	Make	: Bosch
[C]	Model	: CB18/ 0445.025 14B
[C]	Type	: Mechanical – high pressure pump
[C]	Serial Number	: A000591897
	<b>Manufacturer's production setting of injection pump:</b>	
[C]	Flow rate (rated engine speed & full load), (kg/h)	: 10.87 to 11.04
[D]	Timing	: Dynamic injection timing

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## 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:

Sl. No.	Characteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2022	Values declared by the applicant/ (D) Requirement (R)	As observed	Whether meets the requirements (Yes/No)
1	2	3	4	5	6	7
<b>MANDATORY TESTS: (As per Ministry's Office Memorandum No. 13-17/2021-M&amp;T (I&amp;P) dated 28<sup>th</sup> of July, 2022).</b>						
<b>6.1.1 PTO Performance:</b>						
a)	Maximum power under 2 h test, (kW) (Natural ambient condition)	Evaluative	Declared value to be achieved with a tolerance of: $\pm 5\%$ for PTO power and or engine power $>26$ kW. $\pm 10\%$ for PTO power and or engine $\leq 26$ kW.	40.2 (D)	39.8	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	40.2 (D)	39.8	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Evaluative	Should not be more than 10% of declared value.	264 (D)	276	Yes
d)	Maximum equivalent crankshaft torque, (Nm)	Non Evaluative	$\pm 8\%$	235 (D)	217.8	Yes
e)	Back-up torque, percent	Evaluative	Should be min. 12%	21 (D) 12 (R)	20.5	Yes
f)	Maximum operating temperature, ( $^{\circ}$ C):					
	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.	135 (D)	129	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.	112 (D)	112	Yes
g)	Engine oil consumption, (g/kWh)	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	2.76 Maximum (R)	0.20	Yes
h)	Smoke 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)	0.21	Yes

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1	2	3	4	5	6	7
<b>6.1.2</b>	<b>Drawbar performance:</b>					
<b>a)</b>	Max. drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)	Non Evaluative	Minimum 70% of static mass of tractor with ballast.	*	*	*
<b>b)</b>	Max. drawbar pull without ballast corresponding to 15 percent wheel slip, (kN)	Evaluative	In case of tractors having total static mass $\geq$ 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 $\leq$ 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.	17.9 (D) 18.47 (R) Minimum	22.20	Yes
<b>c)</b>	Maximum drawbar power without 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 $\leq$ 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.	32.2 (D) 31.8 (R) Minimum	36.8	Yes
<b>d)</b>	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.	120 (D)	102	Yes
Applicant vide letter no. FD/BVH/ICT/NOVO605DIPPV1/22-23/02 dated 23.08.2023 has requested not to conduct the ballasted drawbar performance test & ten-hour drawbar test which was allowed as per the additional guidelines for testing of tractors as per new regime of testing of tractors vide an OM No. 13-32/2023-M&T(I&P) (FTS-125476) dated 16.05.2023. Accordingly, drawbar performance test under unballasted condition was conducted only.						
<b>6.1.3</b>	<b>Power lift and hydraulic pump performance:</b>					
<b>a)</b>	Maximum lifting capacity throughout the range of lift, (kN):					
	1) At hitch points	Evaluative	Should not be less than 90% of declared value.	26.5 (D) 23.85 (R) Minimum	26.69	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.	19.1 (D) 9.37 (R) Minimum	20.06	Yes
<b>b)</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	0	Yes

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1	2	3	4	5	6	7	
<b>6.1.4</b>	<b>Brake performance at 25 kmph:</b>						
<b>a)</b>	Maximum stopping distance at a force, equal to or less than 600 N on brake pedal with road ballast, (m):						
	1)	Cold brake	Evaluative	10	10 (R)	7.88	Yes
	2)	Hot brake	Evaluative	10	10 (R)	7.89	Yes
<b>b)</b>	Whether parking brake is effective at a force of 600 N at foot pedal (s) or 400 N at hand lever	Evaluative	Yes / No	Yes	Yes	Yes	
<b>6.1.5</b>	<b>OPTIONAL TESTS: As the applicant has not applied for any optional tests, therefore no optional tests was conducted.</b>						
<b>6.1.6</b>	<b>Safety features :</b>						
<b>a)</b>	Guards against moving and hot parts	Evaluative	Belt drives, pulleys, silencer, hydraulic pipes [As per IS 12239 (Part2)]	Meets the requirement	Yes		
<b>b)</b>	Lighting arrangement	Evaluative	As per CMVR	Conforms	Yes		
<b>c)</b>	Seating requirements (Tractors having more than 1150 mm rear track width)	Non Evaluative	Should meet the requirements of IS: 12343 (As amended from time to time)	<b>Does not meet the requirement</b>	<b>No</b>		
<b>d)</b>	Technical requirements for PTO shaft	Non Evaluative	Should meet the requirements of IS: 4931 (As amended from time to time)	<b>Does not meet the requirement</b>	<b>No</b>		
<b>e)</b>	Dimensions of three point linkage	Non Evaluative	Should meet the requirements of IS: 4468 (Part-I) (As amended from time to time)	<b>Does not meet the requirement</b>	<b>No</b>		
<b>f)</b>	Specifications of linkage drawbar	Non Evaluative	Should meet the requirements of IS: 12953 (As amended from time to time)	Meets the requirement	Yes		
<b>g)</b>	Swinging drawbar (wherever fitted)	Non Evaluative	Should meet the requirement of IS: 12362 (Part 3) (As amended from time to time)	Not fitted	Not applicable		
<b>h)</b>	Audible warning signal on tractor	Evaluative	If tractor travel speed in reverse gear exceeds 20 kmph, an audible warning signal on tractor shall get activated. A sticker to the effect that "operating the tractor beyond 20 kmph speed in reverse gear is not safe" should be prominently displayed.	Fitted & meets the requirement.  However, maximum nominal speed at RH gear was observed as 18.04 kmph.	Yes		

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1	2	3	4	5	6	7
<b>6.1.7</b>	<b>Labelling of tractors (Provision of labelling plate):</b>					
	1)	Make	Evaluative	Should conform to the requirements of CMVR along-with declared value of PTO in kW, Specific fuel consumption (SFC) corresponding to maximum power in g/kWh and year of manufacture in numerical form MM    YY Digit 01-12 in box No. 1 for MM will represent the month and next two digit in the box No. 2 for YY will represent the year of manufacturing.	MAHINDRA	Yes
	2)	Model	Evaluative		NOVO 605 DI PP V1	Yes
	3)	Month & Year of manufacture	Evaluative		02/23	Yes
	4)	Engine number	Evaluative		NPL5SDE0066	Yes
	5)	Chassis number	Evaluative		MBNWEBD9VPN L00006	Yes
	6)	Maximum PTO power, (kW)	Evaluative		40.2	Yes
	7)	Specific fuel consumption, (g/kWh)	Evaluative		264	Yes
<b>6.1.8 Literature (Submission to test agency):</b>						
(a)	Operator manual	Evaluative	The printed literature in booklet form should be provided as per IS 8132 and should submit along with the test sample.	Provided	Yes	
(b)	Parts Catalogue	Evaluative		Provided	Yes	
(c)	Workshop/ Service manual	Evaluative		Provided	Yes	
<b>6.1.9 Fitment of Roll Over Protective Structures (ROPS):</b>						
	For tractor having more than 1150 mm rear track width	Evaluative	ROPS should meet the requirement of IS:11821 or OECD code or equivalent International Standard.	Not fitted	Not applicable	
<b>6.1.10</b>	Standard Accessories	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor	Provided	Yes	
<b>6.1.11</b>	Accessories (optional)	Non Evaluative	Ballast weight, if fitted, should meet the requirement of CMVR	Not fitted	Not applicable	
<b>6.2 CATEGORY OF BREAKDOWNS / DEFECTS ( As per clause 5.0 of IS:12207-2022):</b>						
S. No.	Category of break-downs	Category (Evaluative / Non Evaluative)	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	



**6.3 Conformity with following IS:**

- |       |  |   |                         |
|-------|--|---|-------------------------|
| i)    | Guidelines for declaration of power and specific fuel consumption and labeling of agricultural tractors (First revision) [IS:10273 -1987 (Reaffirmed Year 2019)]   | : | Conforms                |
| ii)   | Agricultural tractors - Rear mounted power take-off - Types 1, 2 and 3 (third revision) [IS:4931-1995 (Reaffirmed Year 2019)]  | : | <b>Does not conform</b> |
| iii)  | Agricultural wheeled tractors – Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS 17231: 2019]   | : | <b>Does not conform</b> |
| iv)   | Drawbar for agricultural tractors – Link type [IS 12953:1990 (Reaffirmed Year 2022)]   | : | Conforms                |
| v)    | Agricultural tractors- Operator’s seat technical requirement [IS12343 - 2021]  | : | <b>Does not conform</b> |
| vi)   | Guide for safety & comfort of operator of agricultural tractors:Part 1 General requirements (first revision):[IS 12239 (Part 1) - 2018]  | : | <b>Does not conform</b> |
| vii)  | Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) (IS 12239 (Part 2) 1999) (Reaffirmed Year 2019)]   | : | <b>Does not conform</b> |
| viii) | Guide lines for location and operation of operator controls on agricultural tractors and machinery [IS: 8133 - 2021]   | : | <b>Does not conform</b> |
| ix)   | 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)] | : | <b>Does not conform</b> |
| x)    | Agricultural Tractors and Machinery-Lighting device for travel on public roads (IS:14683-1999) (Reaffirmed Year 2019)]   | : | Conforms                |

**6.4 Salient Observations:**

**6.4.1 Laboratory tests:**

**6.4.1.1 PTO performance test:**

- i) The applicant vide letter no. FD/BVH/ICT/NOVO605DIPPV1/23-24/05 dated 11.09.2023 has requested to restrict the PTO performance test to 1000 engine rpm during the test at full load & varying speed, which was allowed. Hence, test at full load and varying speed under natural and high ambient conditions were conducted up to 1000 engine rpm.
- ii) During the entire two hour max power test under high ambient condition, coolant temperature warning indicator was glowing on cluster, whereas, the coolant temperature throughout the test was observed as 107 to 108°C, which is within the maximum operating temperature as declared by the applicant i.e. 108°C.
- iii) During the two hour max power test under high ambient condition, fluctuation in engine speed was observed. The minimum & maximum PTO power were observed as 36.51 kW & 38.77 kW respectively, The power variation during the maximum PTO power test was observed more than ±2% from the average power (i.e. 37.74 kW).

Upon the issues mentioned in S. No. (ii) & (iii), the applicant vide email dated 18.09.2023 has requested to measure the coolant temperature at radiator upper hose, which was allowed. Accordingly, the coolant temperature sensor was fitted on the radiator upper hose as recommended by the applicant. The clause 6.1.2.1 of IS: 12036-1995 provides to repeat the two hour max power test when the power variation is more than ±2% from the average and hence two hour max power test under high ambient condition was repeated and variation in power from average reading was observed within the tolerance of ±2%.

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#### 6.4.1.2 Drawbar performance test:

- (i) Applicant vide letter no. FD/BVH/ICT/NOVO605DIPPV1/22-23/02 dated 23.08.2023 has requested not to conduct the ballasted drawbar performance test & ten-hour drawbar test which was allowed as per the additional guidelines for testing of tractors as per new regime of testing of tractors vide an OM No. 13-32/2023-M&T(I&P) (FTS-125476) dated 16.05.2023. Accordingly, drawbar performance test under unballasted condition was conducted only.
- (ii) The applicant vide letter no. FD/BVH/ICT/NOVO605DIPPV1/23-24/05 dated 11.09.2023 also requested to restrict the drawbar performance test to 1000 engine rpm as per minimum operating range of tractor under full load condition. Hence, drawbar performance test was conducted up to 1000 engine rpm only.
- (iii) During unballasted drawbar performance test in 4L gear, the air valve of RHS rear tyre tube got broken. Upon this, the applicant vide letter no. FD/BVH/ICT/NOVO605DIPPV1/23-24/07 dated 26.09.2023 has requested to replace the RHS rear tyre tube with a new one of same specification, which was allowed. Accordingly, the tube for RHS rear tyre (size: 16.9 – 28) was replaced with a new one and further test was conducted. This should be looked into for necessary corrective action.

#### 6.4.1.3 Dimension of Three-point linkage:

The dimensions viz. diameter of upper and lower hitch pin holes & width of ball of lower hitch point and lateral distance from lower hitch point to centre line of tractor do not meet the requirements of IS:17231 - 2019. Even though this parameter is categorized as 'Non-evaluative', as per IS: 12207-2022, yet for the sake of improvement it would be advisable to look into the matter to make it conforming to the requirement.

#### 6.4.1.4 Technical requirements for PTO shaft:

The height of centre of PTO shaft from ground level has been measured as 680 mm against the requirement of 450 to 675 mm as per IS: 4931 – 1995. Even though this parameter is categorized as 'Non-evaluative', as per IS: 12207-2022, yet for the sake of improvement it would be advisable to look into the matter to make it conforming to the requirement.

#### 6.4.1.5 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.

#### 6.4.1.6 Operator's seat:

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

- i) Inclination of seat towards rear direction has been measured as 0.9 degree against the requirement of 3 to 12 degrees.
- ii) Vertical adjustment of seat upward and downward from the mid position has been measured as  $\pm 25$  mm against the minimum requirement of  $\pm 30$  mm.
- iii) Provision for adjustment of driver's mass has been specified as 50 to 130 kg against the requirement of 40 to 100 kg.
- iv) Vertical distance from SIP to centre of steering control wheel has been measured as 230 mm against the requirement of 265 to 385 mm.
- v) Position of silencer outlet (upward) with respect to SIP has been measured as 685 mm against the minimum requirement of 800 mm.

All of the above parameters should be looked into for necessary corrective action.

#### 6.4.1.7 Operator's work place:

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

- i) Vertical retainer on inner side of clutch pedal has 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.

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**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 for engine revolution gauge on illuminated display has not been provided as per the requirement as laid down in IS: 6283 (Part 2): 2007.
- ii) Identification of controls viz. engine speed control, transmission control, differential lock and PTO engaging lever by colour code have not been provided as per the requirement as laid down in Table – 5 of IS: 8133-2021.
- ii) 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 draft control lever and position control lever has been measured as 30 mm, against the minimum requirement of 70 mm as per 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 "Mahindra NOVO 605 DI PP V1" tractor model.
- b) Parts Catalogue for "Mahindra NOVO 605 DI PP V1" tractor model.
- c) Service Manual for "Mahindra NOVO 605 DI PP V1" tractor model.

**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 safe hitch height for trailer

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

**TESTING AUTHORITY**

C. K. TIJARE AGRICULTURAL ENGINEER	
R. P. PANDEY SENIOR INSTRUMENTATION ENGINEER	
A.K. UPADHYAY DIRECTOR(I/C)	

Draft test report compiled by Partha Lodh, Senior Technical Assistant.

T-1790/2321/2023	MAHINDRA, NOVO 605 DI PP V1 - INITIAL COMMERCIAL TEST
	THIS TEST REPORT IS VALID UPTO: 31/10/2028

## 6. APPLICANT'S COMMENTS

Para no.	Our reference	Applicant comments
7.1	6.7.2	Parameters in product literature will be studied & necessary action will be initiated.

### 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	14.7
3.	Power lift and hydraulic pump performance test	5.0
4.	Drawbar performance test	5.9
5.	Brake performance test	1.5
6.	Nominal speed test	2.0
<b>B.</b>	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	2.9
	<b>TOTAL:</b>	<b>32.0</b>