

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)
COMMERCIAL TEST REPORT (INITIAL)

संख्या/No. : T-1726/2257/2023
माह/Month : April, 2023

Application Reference No. 28/2022-23/23

(यह परीक्षण रिपोर्ट 30/04/2028 तक वैध है / THIS TEST REPORT IS VALID UPTO 30/04/2028)



MAHINDRA, 275 DI XP PLUS TRACTOR



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

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1. SPECIFICATIONS

- 1.1 Tractor:**
- Make : Mahindra
 Model : 275 DI XP PLUS
 Brand name, if any : BHOOMIPUTRA (apa)
 Type : Rear Wheel Drive, Standard Agricultural Tractor.
 Month & year of manufacture : 05/22
 Chassis number : MBNGAAE1ANZB00856
 Country of origin : India
- 1.2 Engine:**
- Manufacturer's address : M/s. Mahindra & Mahindra Limited
 (Farm Equipment Sector),
 Near Bidar "T" Junction , Mahindra Nagar,
 Zaheerabad- 502 220
 Medak District, Telangana
- Make : Mahindra
 Model : MM22373AH
 Type : Four stroke, naturally aspirated, liquid cooled, direct injection, diesel engine.
 Serial number : ZNB5NFN0863
 Country of origin : India
- 1.2.1 Engine speed (rpm), (Manufacturer's recommended production settings):**
- Maximum speed at no load : 2250 to 2450
 - Low idle speed : 750 to 850
 - Speed at maximum torque : 1100 to 1400
- Rated speed, (rpm):**
- For PTO use : 2100
 - For drawbar use : 2100
- 1.3 Cylinder & Cylinder Head:**
- Number : Three
 Disposition : Vertical, Inline
 Bore/stroke, (mm) : 88.9/ 120
 Capacity as specified by the applicant, (cc) : 2235
 Compression ratio : 20 : 1 (± 1.0)
 Type of cylinder head : Monoblock
 Type of cylinder liners : Wet, replaceable
 Type of combustion chamber : Direct Injection, re-entrant type
 Arrangement of valves : Over head, inline
- Valve clearance:**
- | | <u>Cold</u> | <u>Hot</u> |
|-----------------------|-------------|------------|
| - Inlet valve, (mm) | 0.4 | 0.3 |
| - Exhaust valve, (mm) | 0.5 | 0.4 |
- 1.4 Fuel System:**
- Type of fuel feed system : Gravity and force feed
- 1.4.1 Fuel tank:**
- Capacity, (l) : 49.5
 Location : Above clutch housing
 Provision for draining of sediments/ water : Provided
 Material of fuel tank : Sheet metal
- 1.4.2 Water separator** : Not provided

18. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

18.1 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: 12207-2019 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: 12207-2019	Values declared by the applicant/ (D) Requirement (R)	As observed	Whether meets the requirements(Yes/No)
1	2	3	4	5	6	7
18.1.1	PTO Performance:					
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 ≤ 26 kW.	24.5 (D)	25.3	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	24.5 (D)	25.3	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Evaluative	+ 10% max.	256 (D)	251	Yes
d)	Maximum equivalent crankshaft torque, (Nm)	Non Evaluative	$\pm 8\%$	146.0 (D)	135.0	Yes
e)	Back-up torque, percent	Evaluative	12 percent	15 (D) 12 (R)	17.5	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 high ambient condition should not exceed the declaration.	130 (D)	120	Yes
	2) Coolant	Evaluative	The declared value should not exceed the boiling temperature of coolant under the pressurized or otherwise and the observed value under high ambient condition should not exceed the declaration.	112 (D)	104	Yes
g)	Engine oil consumption, (g/kWh)	Evaluative	Not exceeding 1% of SFC at max. Power under High ambient conditions.	2.51 Maximum (R)	0.32	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).	3.25 per meter Maximum (R)	0.26	Yes
18.1.2	Drawbar performance:					
a)	Max. drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)	Non Evaluative	Minimum 70% of static mass of tractor with ballast.	15.85 (D) 15.61 Minimum (R)	18.92	Yes

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1	2	3	4	5	6	7	
b)	Max. drawbar pull with standard ballast corresponding to 15 percent wheel slip, (kN)	Evaluative	Minimum 70% of static mass of tractor without ballast or with standard ballast, as the case may be.	12.74 (D)	15.38	Yes	
				12.54 (R) Minimum			
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.	19.6 (D)	22.6	Yes	
				20.2 (R) Minimum			
d)	Maximum transmission oil temperature, (°C)	Evaluative	The declared value should not exceed the maximum value specified by oil company	120 (D)	80	Yes	
18.1.3	Power lift and hydraulic pump performance:						
a)	Maximum lifting capacity throughout the range of lift, (kN):						
	1)	At hitch points	Evaluative	Tolerance of ± 10%	14.60 (D)	13.61	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.	10.20 (D) 5.95 (R) Minimum	9.79	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	100	No	
18.1.4	Brake performance at 25 kmph:						
a)	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)	7.05	Yes
	2)	Hot brake	Evaluative	10	10 (R)	7.11	Yes
b)	Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s ² , (N)	Evaluative	600	600 (R) Maximum	168 to 208	Yes	
c)	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	
18.1.5	Noise measurement:						
a)	Maximum ambient noise emitted by the tractor, dB(A)	Evaluative	As per CMVR	88 (R)	82	Yes	
b)	Maximum noise at operator's ear level, dB(A)	Evaluative	As per CMVR	96 (R)	93	Yes	

1	2	3	4	5	6	7
18.1.6	Amplitude of mechanical vibrations at:					
	1) Left foot rest	Non Evaluative	100 microns (max.)	100 (R)	81	Yes
	2) Right foot rest				64	Yes
	3) Seat (with driver seated)				68	Yes
	4) Steering wheel				134	No
18.1.7	Air cleaner:					
	Maximum air cleaner oil pull over, (%)	Evaluative	0.25 (Max.)		0.12	Yes
18.1.8	Haulage requirements:					
a)	Gross mass of the trailers, (tonne):					
	Two wheel	Non Evaluative	As specified by the manufacturer	5.0 (D)	5.0	Yes
	Four wheel	Non Evaluative		7.0 (D)	7.0	Yes
b)	Distance travelled / liter of fuel consumption, (km/l):					
	Two wheel	Non Evaluative	As specified by the manufacturer	5 to 6 (D)	6.17 to 6.36	No
	Four wheel	Non Evaluative		5 to 6 (D)	5.59 to 5.83	Yes
c)	Fuel consumption, (ml/km/tonne):					
	Two wheel	Non Evaluative	As specified by the manufacturer	30 to 35 (D)	31.43 to 32.40	Yes
	Four wheel	Non Evaluative		25 to 30 (D)	24.52 to 25.56	No
18.1.9	Wetland cultivation :					
	Sealing for the following assemblies:	Evaluative	The identified assemblies should essentially meet the requirement of IS: 11082. No water ingress in the identified assembly given in column-2. If tractor does not meet the requirements of wetland cultivation, it may be recommended for dry land operation only.	There should be no ingress of water and/or mud (R)	No ingress of water and/or mud was observed	Yes
	1) Clutch assembly	-do-				
	2) Brake housings	-do-				
	3) Front axle hubs	-do-				
	4) Engine Oil	-do-				
	5) Transmission Oil	-do-				
18.1.10	Safety features :					
a)	Guards against moving and hot parts	Evaluative	Belt drives, pulleys, silencer, hydraulic pipes [As per IS 12239 (Part2)]		Meets the requirement	Yes
b)	Lighting arrangement	Evaluative	As per CMVR		Meets the requirement	Yes
c)	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)		Does not meet the requirement	No
d)	Technical requirements for PTO shaft	Evaluative	Should meet the requirements of IS: 4931 (As amended from time to time)		Meets the requirement	Yes
e)	Dimensions of three point linkage	Non Evaluative	Should meet the requirements of IS: 4468 (Part-I) (As amended from time to time)		Does not meet the requirement	No

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1	2	3	4	5	6	7
f)	Specifications of linkage drawbar	Evaluative	Should meet the requirements of IS: 12953 (As amended from time to time)		Meets the requirement	Yes
g)	Swinging drawbar (wherever fitted)	Evaluative	Should meet the requirement of IS: 12362 (Part 3) (As amended from time to time)		Not provided	Not applicable
h)	1) Maximum travelling speed at rated engine speed in reverse gears, kmph	Evaluative	Should not exceed 20 kmph		11.27 (Meets the requirement)	Yes
	2) Audible warning signal on tractor	Evaluative	As soon as the travelling speed in reverse gear reaches to 20 kmph, an audible warning signal on tractor shall be activated. The safety aspects about the operation of shuttle technology shall be brought in operation and manufacturer /dealer shall ensure the training on this aspect to operator before the delivery of tractor.		Not fitted	Not applicable
18.1.11	Labelling of tractors (Provision of labelling plate):					
	1) Make	Evaluative	Should conform to the requirements of CMVR along with maximum PTO Power in kW and year of manufacture in numerical form. MM YY		Mahindra	Yes
	2) Model	Evaluative			275 DI XP PLUS	Yes
	3) Month & Year of manufacture	Evaluative			05/22	Yes
	4) Engine number	Evaluative			ZNB5NFN0863	Yes
	5) Chassis number	Evaluative			MBNGAAE1ANZB00856	Yes
	6) Maximum PTO power, (kW)	Evaluative			24.5	Yes
18.1.12	Discard limit for:					
(a)	Cylinder bore diameter, (mm)	Evaluative	To be specified by the manufacturer and supported by the printed literature	89.13	88.900 to 88.924	Yes
(b)	Clearance between piston & cylinder liner at skirt, (mm)	Non Evaluative		0.20	0.109 to 0.116	Yes
(c)	Piston diameter at skirt, (mm)	Non Evaluative		88.15	88.808 to 88.811	Yes
d)	Ring end gap (mm):					
	- Top comp. ring.	Evaluative	To be specified by the manufacturer and supported by the printed literature	2.50	0.35	Yes
	- 2 nd comp. ring.			2.50	0.60	Yes
	- Oil ring.			2.00	0.30 to 0.35	Yes
e)	Ring groove clearance (mm):					
	- Top comp. ring.	Evaluative	To be specified by the manufacturer and supported by the printed literature	Tapered		Yes
	- 2 nd comp. ring.			0.30	0.070 to 0.073	Yes
	- Oil ring.			0.20	0.047 to 0.049	Yes
f)	Clearance of main bearings (mm):					
	- Diametrical clearance	Evaluative	To be specified by the manufacturer and supported by the printed literature	0.20	0.069 to 0.071	Yes
	- Crankshaft end float	Evaluative		0.60	0.10	Yes

1	2	3	4	5	6	7	
(g)	Clearance of big end bearings, (mm):						
	-	Diametrical	Evaluative	-do-	0.20	0.064 to 0.068	Yes
	-	Axial	Evaluative	-do-	0.75	0.25	Yes
(h)	Clearance between king pin and bush, (mm)	Non Evaluative	-do-	0.30	0.070 to 0.080	Yes	
(i)	Clearance between centre pin and bush, (mm)	Non Evaluative	-do-	0.30	0.052 to 0.057	Yes	
18.1.13	Literature (Submission to test agency)						
(a)	Operator manual	Evaluative	Provided / Not Provided	Provided	Provided	Yes	
(b)	Parts Catalogue	Evaluative	Provided / Not Provided	Provided	Provided	Yes	
(c)	Workshop/ Service manual	Evaluative	Provided / Not Provided	Provided	Provided	Yes	
18.1.14	Fitment of Roll Over Protective Structures (ROPS):						
	For tractor having more than 1150 mm rear track width	Evaluative	ROPS should meet the requirement of IS:1182 or OECD code or equivalent International Standard		Not fitted	Not applicable	
18.1.15	Standard Accessories	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor		Provided	Yes	
18.1.16	Accessories (optional)	Non Evaluative	Ballast weight, if fitted, should meet the requirement of CMVR		Not fitted	Not applicable	

18.2 CATEGORY OF BREAKDOWNS / DEFECTS (As per clause 5.0 of IS:12207-2019):					
S. No.	Category of break-downs	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2019	As observed	Whether meets the Requirements (Yes/No)
1.	Critical	Evaluative	No critical breakdown	None	Yes
2.	Major	Evaluative	Not more than two and neither of them should be repetitive in nature	None	Yes
3.	Minor	Evaluative	Not more than five and frequency of each should not be more than two.	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

18.3 Conformity with following IS:

- i) Guidelines for declaration of power and specific fuel consumption and labeling of agricultural tractors (First revision) [IS10273:1987 (Reaffirmed in January,2019)] : Conforms
- ii) Agricultural tractors - Rear mounted power take-off - Types 1, 2 and 3 (third revision) [IS:4931-1995 (Reaffirmed in January,2019)] : Conforms
- iii) Agricultural wheeled tractors – Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS4468(Part-I):1997/ ISO730-1:1994 (Reaffirmed in 2017)] : **Does not conform**
- iv) Drawbar for agricultural tractors – Link type [IS 12953:1990 (Reaffirmed October, 2017)] : Conforms
- v) Agricultural tractors- Operator's seat technical requirement [IS12343–2021] : **Does not conform**

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vi)	Guide for safety & comfort of operator of agricultural tractors:Part 1 General requirements (first revision):[IS 12239 (PT-1)-2018 / ISO4254-1:2018]	:	Does not conform
vii)	Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) (IS 12239 (PT-2) 1999) (Reaffirmed in January,2019)]	:	Does not conform
viii)	Guide lines for location and operation of operator controls on agricultural tractors and machinery [IS: 8133-2021]	:	Does not conform
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 and IS: 6283 (Part-2)-2007(Reaffirmed in January,2019)]	:	Does not conform
x)	Agricultural Tractors and Machinery-Lighting device for travel on public roads (IS:14683-1999) (Reaffirmed in January,2019)]	:	Conforms

18.4 Salient Observations:

18.4.1 Laboratory tests:

18.4.1.1 Hydraulic performance test

During maintenance of lift load test, cumulative drop in the height of lower links was measured as 100 mm against the maximum permissible limit of 50 mm which does not meet the requirement of IS: 12207-2022. 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.

18.4.1.2 Mechanical Vibration

The amplitude of mechanical vibration on various assemblies marked as (*) in Chapter – 10 of this test report is on higher side. This calls for dampening down of vibrations, especially on steering control wheel, to improve the operational comfort and service life of components.

18.4.1.3 Three point linkage:

The dimensions viz. diameter of lower hitch pin hole, width of balls at lower hitch, lateral distance from lower hitch point to centre line of tractor and lower hitch point height do not meet the requirement of IS: 4468 -1997 (Part-1). This should be looked into for necessary corrective action.

18.4.1.4 Operator's seat:

- 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 from SIP to centre of clutch pedal has been measured as 470 mm against the requirement of 230 to 460 mm.
- iii)** Vertical distance from SIP to centre of accelerator pedal has been measured as 540 mm against the requirement of 230 to 460 mm.
- iv)** Longitudinal distance from SIP to centre of steering control wheel has been measured as 610 mm against the requirement of 425 to 525 mm.
- v)** Vertical distance from SIP to centre of steering control wheel has been measured as 225 mm against the requirement of 265 to 385 mm.
- vi)** Vertical distance of SIP from foot rest has been measured as 595 mm against the requirement of 450 to 520 mm.

Above parameters does not meet the requirement of IS: 12343-2021. This should be looked into for necessary corrective action at production level.

18.4.1.5 PTO master shield:

PTO master shield has not been provided on tractor. This should be looked into for necessary corrective action.

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18.5 Haulage Test:

- i) Distance travelled per litre fuel consumption with two wheel trailer was observed as 6.17 to 6.36 km against the declaration of 5.0 to 6.0 km. This should be looked into.
- ii) Specific fuel consumption with four wheel trailer was observed as 24.52 to 25.56 cc/km/ton against the declaration of 25 to 30 cc/km/ton.

18.6 Components/ Assembly Inspection:

During Final wear assessment/components & assembly inspection, presence of oil was observed in the clutch housing due to leakage from the plug (Part No. 006037228) fitted on the main oil gallery towards the clutch housing. This should be looked into for corrective action.

18.7 Specification

- i) The brand name of the tractor has been specified as BHOOMIPUTRA under clause 4 of Application Format No1. Whereas, on labeling plate riveted on the tractor as well as in the printed literature submitted with test sample, brand name is not available. This should be looked into for necessary corrective action.
- ii) The model of tractor has been specified as "275 DI XP Plus" in the specification sheet. Whereas, the same has been specified as "275 XP Plus" vide P. No. 3-1 to 3-3 of Operator's manual.
- iii) The model of tractor has been specified as "275 DI XP Plus" in the specification sheet. Whereas, the same has been specified as "275 XP Plus" vide cover page of Parts Catalogue and service Manual.
- iv) The oil change period of air cleaner has been specified as "after every 50 hours or earlier if required in arduous condition" in the specification sheet. Whereas, the same has been specified as "at every 250 hours or earlier, if required in arduous condition" in the Operator's manual.
- v) Method of front wheel track adjustment is recommended by reversing the wheel disc vide specification sheet. Whereas, the track width adjustment has been recommended by extending the telescopic front axle vide P. No. 12-2 of operator's manual.

Above parameters should be looked into for necessary corrective action.

18.8 Maintenance / Service Problems:

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

18.9 Recommendation with regard to safety on tractor:

- i) Identifying symbol for Neutral position on main gear shifting lever and range selection lever has not been provided as per the requirement of IS: 6283 (Part1)-2007.
- 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.
- iii) The distance of engine stop control has been measured as 350 mm from engine start control, which should be within 150 mm as per the requirement of IS: 8133-2021.
- iv) Vertical retainer is not provided on inner side of clutch pedal as per the requirement of IS: 12239 (Part-1)-2018.
- v) Width of foot step has been measured as 165 mm against the minimum requirement of 200 mm as per the requirement of IS: 12239 (Part-1)-2018.
- vi) Spark arresting device has not been provided in the exhaust system as per the requirement laid down in IS: 12239 (Part-1)-2018.
- vii) The working clearance between draft control lever and RHS fender has been measured as 40 mm against the minimum requirement of 70 mm as per IS: 12239 (Part-1)-2018.
- viii) The working clearance between parking brake lever and RHS fender has been measured as 40 mm against the minimum requirement of 70 mm as per IS: 12239 (Part-1)-2018.

Above parameters should be looked into for necessary corrective action.

18.10 Adequacy of Literature supplied with machine:

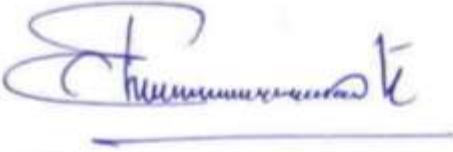

18.10.1 The following literatures were supplied with the test tractor for reference during the test. -

- a) Operator's Manual for "Mahindra, XP Plus & SP Plus" tractor models.
- b) Parts Catalogue for "Mahindra, 275 DI XP Plus" tractor model.
- c) Service Manual for "Mahindra, 275 DI XP Plus" tractor model.

18.10.2 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) Safe hitch height while using four wheel trailer.
- ii) Coolant water ratio.
- iii) Recommended gross mass of trailers for haulage operation.
- iv) Recommended water ballasting mass for different operations.

TESTING AUTHORITY:

<p>C.V. CHIMOTE TEST ENGINEER</p>	
<p>A. K. UPADHYAY DIRECTOR (I/C)</p>	

Draft test report compiled by: **Partha Lodh**, Senior Technical Assistant

19. APPLICANT'S COMMENTS

Para no.	Our reference	Applicant comments
19.1	17.1	Root cause of the leakage will be studied and necessary corrective action will be taken.
19.2	18.7 (i)	As per our system, brand name "Bhoomiputra" is not part of model name, therefore it is not punched on labeling plate. However, a suitable decal is provided on scuttle of tractor.
19.3	18.7 [(i) to (v)]	Differences observed in between submitted specification and operator's manual, corrective actions will be taken to make them common throughout all literatures and specifications.
19.4	18.10.2	Parameters in product literature will be studied & necessary action will be initiated.

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ANNEXURE-I

BRIEF SPECIFICATION OF MATCHING IMPLEMENTS AS DECLARED BY APPLICANT

S. No.	Parameters	Disc Plough	Rotavator	Puddler
1	Make	Farmking	Farmking	Not available
2	Type	Mounted	Mounted	Mounted
3	No. of Discs / Blades	Two	30 in 5 flanges	12 (6 in 2 gangs)
4	Type of Discs / Blades	Plain concave	Hatchet	Notched
5	Size of Discs / Blades, (mm)	655	220 x 75 x 7	460
6	Spacing of Discs /Flanges, (mm)	495	240	165
7	Lower hitch point span, (mm)	760	800	680
8	Mast height, (mm)	480	640	500
9	Overall Dimensions, (mm):			
	Length	1480	970	1190
	Width	1060	1510	1810
	Height	1180	1100	1330
10	Gross Mass, (kg)	200	200	240
11	Working width (cm)	2 x 30	125	210

ANNEXURE-II

BRIEF SPECIFICATION OF MATCHING CAGE WHEEL AS DECLARED BY APPLICANT

S. No.	Items	Specification
1	Type	Half cage wheel
2	Outer dia. (mm)	1200
3	Width (mm)	360
4	No. & Type of Lugs	14, straight lugs made of MS angle section welded to angle iron frame
5	Size of angle section, (mm)	50 x 50 x 5
6	Length of lug, (mm)	360
7	Spacing of lug, (mm)	260
8	Weight of each cage wheel, (kg)	100

ANNEXURE-III

BRIEF SPECIFICATION OF TRAILER DECLARED AS MATCHING TRAILER BY APPLICANT

S. No.	Item	Trailer	Trailer
1.	Type of trailer	Semi - Trailer	Semi – Trailer
2.	Number of axles	Single	Double
3.	Un laden Weight of Trailer, kg	1670	2800
4.	Fully laden Weight of Trailer, Tons (Kg)	5.0	7.0
5.	Overall dimensions of Trailer, (mm):		
	Overall Width	1870	2140
	Overall Length	4180	5785
	Overall Height	2175	2110
	Wheel Base	Not applicable	2835
	Wheel Track	1600	1740 (Front) & 1765 (Rear)
6.	Dimension of fitted Platform, (mm):		
	Length	3040	4225
	Width	1830	2135
	Height from ground	1190	1305
7.	Brakes of Trailer	Not Provided	Not Provided

T-1726/2257/2023	MAHINDRA, 275 DI XP PLUS TRACTOR - COMMERCIAL (INITIAL)
	THIS TEST REPORT IS VALID UPTO: 30/04/2028

ANNEXURE-IV

TRACTOR RUN HOURS DURING TEST

A.	LABORATORY AND TRACK TESTS:	HOURS
1.	Running-in	60.08
2.	PTO performance test	12.6
3.	Power lift and hydraulic pump performance test	4.2
4.	Drawbar performance test	14.5
5.	Turning ability & Location of centre of gravity	0.7
6.	Operator's field of vision	--
7.	Brake test	2.0
8.	Air cleaner oil pull over test	3.5
9.	Noise measurement	1.5
10.	Mechanical vibration test	1.0
11.	Nominal speed test	0.5
B.	FIELD TEST:	
1.	Disc ploughing	10.5
2.	Rotavation	10.8
3.	Puddling (including 5.0 hours water proof test)	15.3
C.	HAULAGE TEST:	5.2
D.	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	5.9
TOTAL:		148.28