

व्यावसायिक परीक्षण रिपोर्ट (प्रथम बैच)

संख्या/No. : T- 1600/2131/2021

COMMERCIAL TEST REPORT (1st Batch)

माह/Month : November, 2021

[ONLINE TESTING]

(यह परीक्षण रिपोर्ट 30/11/2026 तक वैध है | / THIS TEST REPORT IS VALID UPTO: 30/11/2026)



TAFE LTD., MF 7250 DI V1.1 TRACTOR



भारत सरकार

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

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

(DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

ट्रैक्टर नगर, बुदनी (म.प्र.) 466 445

CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE

(An ISO 9001: 2015 Certified Institute)

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| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

The “TAFE LTD., MF 7250 DI V1.1” tractor model had undergone “Initial Commercial Test” at this Institute vide test report No. T-1101/1627/2017 released in **August, 2017**. Now the applicant has submitted an application No. 28/2020-21/30 dated: 22.12.2020 for batch testing of “TAFE LTD., MF 7250 DI V1.1” tractor.

All necessary tests as per Table-1 of clause 6.0 of IS: 5994 - 1998 (Reaffirmed in January, 2019) were carried out and test report released as under.

| | |
|--|--|
| Manufacturer | : M/s Tractors and Farm Equipment Limited, Old 35, New 77, Mahatma Gandhi Road, Post Box No. 3302 Nungambakkam, Chennai – 600 034 (Tamil Nadu) |
| Location of manufacturing plant | : i) M/s Tractors and Farm Equipment Limited, Kalladipatti Plant, 10/205, Kalladipatti (PO), Dindigul Dist., Pincode – 624 201(Tamil Nadu) ii) M/s Tractors and Farm Equipment Limited, Doddaballapur Plant, Plot No. – 1, KIADB Industrial Estate, Doddaballapur, Bangalore- 561 203 (Karnataka) |
| Test requested by (applicant) | : The manufacturer |
| Selected for test by | : The manufacturer |
| Place of running-in | : At manufacturer’s work place |
| Duration of said running-in, (h): | |
| - Engine | : 12 |
| - Transmission | : 24 |
| Method of Selection | : Due to Covid-19 Pandemic, it was not possible to conduct the random selection. Nor was possible for applicant to facilitate the random selection. As a last resort applicant requested to allow the direct submission of Test Sample, which was allowed. |

1. SPECIFICATIONS

| | |
|-----------------------------|--|
| 1.1 Tractor: | |
| Make | : TAFE LTD. |
| Model | : MF 7250 DI V1.1 |
| Brand Name | : None |
| Variants, if any | : None |
| Type | : Four wheeled, Rear wheel driven, General purpose, Unit Construction, Agricultural tractor. |
| Month & Year of manufacture | : 01 / 21 |
| Chassis number | : MEA0AD05AM2342502 |
| Country of origin | : India |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

15. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

15.1 On the basis of tests conducted the performance results have been summarized as evaluative (mandatory) and non-evaluation (not-mandatory) parameter 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: -

| S. 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 |
| 15.1.1 | PTO Performance: | | | | | |
| a) | Max. power under 2 h test, (kW) (Natural ambient condition) | Evaluative | Declared value to be achieved with a tolerance of: $\pm 5\%$ for PTO power or engine power >26 kW, $\pm 10\%$ for PTO power or Engine power ≤ 26 kW. | 32.8 (D) | 32.7 | Yes |
| b) | Power at rated engine speed, (kW) | Non-Evaluative | -do- | 32.8 (D) | 32.7 | Yes |
| c) | Specific fuel consumption corresponding to maximum power, (g/kWh) | Evaluative | + 10% Max. | 265 (D) | 249 | Yes |
| d) | Maximum equivalent crankshaft torque, (Nm) | Non-Evaluative | $\pm 8\%$ | 161.5 (D) | 165.0 | Yes |
| e) | Back-up torque, percent | Evaluative | 12 percent, min. | 12%(D) 12%(R) | 19.1 | 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. | 132 (D) | 107 | Yes |
| | 2) Coolant (liquid) | 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) | 95 | Yes |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|---|----------------|--|--------------------|-------|-----|
| g) | Engine oil consumption, (g/kWh) | Evaluative | Not exceeding 1% of SFC at max. power under High ambient conditions | 2.49 (Maximum) (R) | 0.48 | Yes |
| h) | Smoke level, (m ⁻¹) | Evaluative | Maximum light absorption coefficient of 3.25 per metre or equivalent BOSCH No. 5.2 or 75 Hatridge value (As per CMVR) | 3.25 (Maximum) (R) | 0.24 | Yes |
| 15.1.2 | Drawbar performance: | | | | | |
| a) | Maximum drawbar pull with ballast corresponding to 15 percent wheel slip, (kN) | Non-Evaluative | Minimum 70% of static mass with ballast | 18.5 (D) | 24.54 | Yes |
| | | | | 19.70 (R) | | |
| b) | Maximum drawbar pull with standard ballast corresponding to 15 percent wheel slip, (kN) | Evaluative | Minimum 70% of static mass of tractor without / standard ballast | 13.0 (D) | 16.67 | Yes |
| | | | | 14.07 (R) | | |
| c) | Maximum drawbar power without ballast, or with standard ballast as the case may be, kW | Evaluative | <p>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</p> <p>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.</p> <p>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.</p> | 26.3 (D) | 27.7 | Yes |
| | | | | 26.2 (R) (Minimum) | | |
| d) | Maximum transmission oil temperature (°C) | Evaluative | The declared value should not exceed the maximum value specified by oil company | 120 (D) | 89 | Yes |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---------------|---|---------------------------|--|--|--------------------|-----------|-----------|
| 15.1.3 | Power lift and hydraulic pump performance: | | | | | | |
| a) | Maximum lifting capacity throughout the range of lift, (kN): | | | | | | |
| | 1) | At hitch points | Evaluative | ±10 percent | 15.0 (D) | 15.16 | 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 | 11.5 (D) | 13.30 | Yes |
| | | | | | 7.70 (R) (Minimum) | | |
| 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 minute, (mm) | Non-Evaluative | The observed value should not exceed 50 mm | 50 (D) | 160 | No | |
| | | | | 50 (R) (Maximum) | | | |
| 15.1.4 | Brake performance at 25 kmph: | | | | | | |
| a) | Maximum stopping distance at a force, equal to or less than 600 N on brake pedal with ballast, (m): | | | | | | |
| | 1) | Cold brake | Evaluative | 10 m | 10 (R) | 6.81 | Yes |
| | 2) | Hot brake | Evaluative | 10 m | 10 (R) | 6.81 | 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) | 232 to 248 | Yes | |
| c) | Whether parking brake is effective at a force of 600 N at foot pedal(s) or 400 N at hand lever, N | Evaluative | Yes / No | Yes | 360 | Yes | |
| 15.1.5 | Noise measurement: | | | | | | |
| a) | Maximum ambient noise emitted by the tractor dB(A) | Evaluative | As per CMVR | 88(R) (Maximum) | 83 | Yes | |
| b) | Maximum noise at operator's ear level dB(A) | Evaluative | As per CMVR | 96(R) (Maximum) | 94 | Yes | |
| 15.1.6 | Amplitude of mechanical vibrations at: | | | | | | |
| | 1) | Left foot rest | Non-Evaluative | 100 microns (max) | 100(R) (Maximum) | 95 | Yes |
| | 2) | Right foot rest | | -do- | | 121 | No |
| | 3) | Seat (with driver seated) | | -do- | | 57 | Yes |
| | 4) | Steering wheel | | do- | | 109 | No |
| 15.1.7 | Air cleaner oil pull over: | | | | | | |
| | Maximum air cleaner oil pull over | Evaluative | 0.25 % (max.) | 0.25 (Maximum) | 0.13 | Yes | |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|----------------|--|---|---------------|-----------|
| 15.1.8 | Haulage requirements: | | | | | |
| a) | Gross mass of the trailers, (tones): | | | | | |
| | 1) Two wheel | Non Evaluative | -- | 5.0 (D) | 5.0 | Yes |
| | 2) Four wheel | Evaluative | -- | 5.0 (D) | 5.0 | Yes |
| b) | Distance travelled / litre of fuel consumption, (km/l): | | | | | |
| | 1) Two wheel | Non Evaluative | -- | 4.80 to 6.50 (D) | 7.00 to 7.46 | No |
| | 2) Four wheel | Evaluative | -- | 4.80 to 6.50 (D) | 6.78 to 7.33 | No |
| c) | Fuel consumption (ml/km/tonne): | | | | | |
| | 1) Two wheel | Non Evaluative | -- | 25 to 40 (D) | 40.6 to 42.55 | No |
| | 2) Four wheel | Evaluative | -- | 25 to 40 (D) | 36.6 to 41.10 | No |
| 15.1.9 | 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. | The major breakdowns were not observed in the field test during initial commercial testing of this tractor model having test report No. T-1101/1627/2017 released in August, 2017. So, as per the provision as laid down in clause 7.2 of IS: 12207- 2019, the field test during the batch testing of this tractor model was not conducted. | | Yes |
| | 1) Clutch assembly | -do- | | | | |
| | 2) Brake housings | -do- | | | | |
| | 3) Front axle hubs | -do- | | | | |
| | 4) Engine Oil | -do- | | | | |
| | 5) Transmission Oil | -do- | If tractor does not meet the requirements of wetland cultivation, it may be recommended for dry land operation only. | | | |
| 15.1.10 | Safety features : | | | | | |
| a) | Guards against moving and hot parts | Evaluative | Belt drives, pulleys, silencer, hydraulics pipes(as per IS-12239 Part 2) | Meet the requirements | | Yes |
| b) | Lighting arrangement | Evaluative | As per CMVR | Meet the requirements | | 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 requirements | | No |
| d) | Technical requirements for PTO shaft | Evaluative | Should meet the requirements of IS: 4931 (As amended from time to time) | Meet the requirements | | 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 requirements | | No |
| f) | Specifications of linkage drawbar | Evaluative | Should meet the requirements of IS 12953 (As amended from time to time) | Meet the requirements | | Yes |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
|----------------|--|----------------|---|---|------------------------------------|-----------------------|------|-----|
| g) | Specifications of Swinging drawbar (wherever fitted) | Evaluative | Should meet the requirements 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 | | 14.53 kmph (Meet the requirements) | 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. | | Not provided | Not Applicable | | |
| 15.1.11 | Labelling of tractors (Provision of labelling plate): | | | | | | | |
| | 1) Make | Evaluative | Should conform to the requirements of CMVR along with maximum declared value of PTO power in kW and for month & year of manufacture in <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>MM</td><td>YY</td></tr></table> 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 | MM | YY | | TAFE | Yes |
| MM | YY | | | | | | | |
| | 2) Model | Evaluative | | | | MF 7250 DI V1.1 | Yes | |
| | 3) Month & Year of manufacture | Evaluative | | | | 01 / 21 | Yes | |
| | 4) Engine number | Evaluative | | | | SJ327B01392 | Yes | |
| | 5) Chassis number | Evaluative | | | | MEA0AD05AM 2342502 | Yes | |
| | 6) Declaration of PTO power, kW | Evaluative | | | 32.8 | Yes | | |
| 15.1.12 | Discard limit for: | | | | | | | |
| (a) | Cylinder bore diameter, (mm) | Evaluative | To be specified by Manufacturer | 95.180(D) | 94.982 to 95.008 | Yes | | |
| (b) | Clearance between piston & cylinder liner at skirt, (mm) | Non Evaluative | | 0.180 (D) | 0.108 to 0.118 | Yes | | |
| (c) | Piston diameter at skirt, (mm) | Non Evaluative | | Piston is discarded when ring groove clearance exceeds 0.25 mm with new rings | 94.888 to 94.896 | Yes | | |
| (d) | Ring end gap, (mm): | | | | | | | |
| | - Top comp. ring. | Evaluative | -do- | 1.50 (D) | 0.40 to 0.50 | Yes | | |
| | - 2 nd comp. ring. | | -do- | 1.50 (D) | 0.65 to 0.70 | Yes | | |
| | - Oil ring. | | -do- | 1.50 (D) | 0.45 to 0.50 | Yes | | |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|----------------|--|-----------------------------|----------------|--|--|----------------|----------------|
| (e) | Ring groove clearance, (mm): | | | | | | |
| | - | Top comp. ring. | Evaluative | -do- | --Tapered rings-- | | Not applicable |
| | - | 2 nd comp. ring. | | -do- | 0.25 (D) | 0.063 to 0.066 | Yes |
| - | Oil ring. | -do- | | 0.25 (D) | 0.045 to 0.053 | Yes | |
| (f) | Diametrical clearance of main bearings, (mm): | | Evaluative | -do- | 0.25 (D) | 0.104 to 0.150 | Yes |
| (g) | Clearance of big end bearings, (mm): | | | | | | |
| | - | Diametrical | Evaluative | -do- | 0.25 (D) | 0.105 to 0.155 | Yes |
| | - | Axial | Evaluative | -do- | 0.75 (D) | 0.25 | Yes |
| (h) | Crankshaft end float, (mm) | | Evaluative | -do- | 0.50 (D) | 0.24 | Yes |
| (i) | Clearance between king pin and bush, (mm) | | Non Evaluative | -do- | 0.35 (D) | 0.14 to 0.21 | Yes |
| (j) | Clearance between center pin and bush, (mm) | | Non Evaluative | -do- | 0.10 (D) | 0.07 to 0.08 | Yes |
| 15.1.13 | 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 |
| 15.1.14 | Fitment of Roll Over Protective Structure (ROPS): for tractors 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 Provided (D) Provided (R) (Optional as per CMVR) | Not Fitted | Not Applicable |
| 15.1.15 | Standard accessories | | Evaluative | Trailer hitch, front tow hook, linkage drawbar should be provided with tractor | Provided | Provided | Yes |
| 15.1.16 | Accessories (Optional) | | Non Evaluative | Ballast weights if fitted should meet the requirement of CMVR. | Provided | Not Provided | Not Applicable |

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

| 15.2 CATEGORY OF BREAKDOWNS / DEFECTS (As per clause 5.0 of IS:12207-2019): | | | | | |
|---|-----------------------|--|--|-------------|---|
| S. No. | Category of Breakdown | Category (Evaluative / Non-Evaluative) | Requirements as per IS: 12207-2019 | As observed | Whether meets the requirement (Yes/No.) |
| 1. | Critical breakdown | Evaluative | There is no 'critical breakdown' during the course of testing | None | Yes |
| 2. | Major breakdowns | Evaluative | There are not more than 1 major breakdowns and neither of them is of repetitive nature | None | Yes |
| 3. | Minor breakdowns | Evaluative | There are not more than 3 minor defects during the test and the frequency of each is not be more than two | None | Yes |
| 4. | Total breakdowns | Evaluative | In no case, the total number of breakdowns should exceed four that is, (1 major + 3 minor) or 4 minor breakdowns | None | Yes |

15.3 Salient Observations:

15.3.1 Laboratory tests:

15.3.1.1 PTO Performance Test:

- i) The maximum PTO power was recorded as **32.7 kW** against the declaration of **32.8 kW**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- ii) The PTO power at rated engine speed was recorded as **32.7 kW** against the declaration of **32.8 kW**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- iii) The specific fuel consumption corresponding to maximum power was recorded as **249 g/kWh** against the declaration of **265 g/kWh**, which is within the tolerance limit of IS: 12207-2019.
- iv) The maximum equivalent crankshaft torque was recorded as **165.0 N-m** against the declaration of **161.5 N-m**, which is within the permissible limit as specified in IS: 12207-2019.
- v) The backup torque is recorded as **19.1 %** and meets the evaluative requirement of IS: 12207-2019.

15.3.1.2 Drawbar Performance Test:

During ten hours drawbar performance test, creeping of LHS & RHS rear tyres over the rims are recorded as **25 & 50 mm**. This should be looked into for necessary corrective action.

15.3.1.3 Hydraulic performance test:

- i) The moment about rear axle with standard frame is computed as **19.62 kN-m**. Whereas, the moment about front axle was computed as **16.28 kN-m**. The moment about rear axle is on higher side as compared to the moment about front axle. It is therefore, recommended that the lifting capacity of the hydraulic system may be reduced suitably to avoid the front lifting of the tractor.

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

- ii) During the lift load maintenance test, the cumulative drop in height of lift during the first five minutes was recorded as **95 mm** against the requirement of **50 mm** maximum. Maximum cumulative drop in height of hydraulic lift during lift maintenance load test for a total duration of 30 minute has been recorded as **160 mm** against the requirement of **50 mm** maximum and does not meet the requirement of IS: 12207-2019. This should be looked into for necessary corrective action.

15.3.1.4 Mechanical Vibration:

The amplitude of mechanical vibration on various assemblies / components marked as (*) in Chapter – 8 of this test report is on higher side. This calls for dampening down of vibrations especially on right foot rest and steering control wheel to improve the operational comfort and service life of components.

15.3.1.5 Operator's seat:

Vertical distance from Seat Index Point to centre of clutch and brake pedal has been recorded as **350** and **350 mm** respectively against the requirement of **380 to 620 mm**. Hence these dimensions does not meet the requirement of IS:12343-1998, (Re-affirmed in January, 2019). This should be looked into for necessary action.

15.3.1.6 Haulage test:

- i) Distance travelled per litre of fuel consumption with two wheel and four wheel are recorded **7.00 to 7.46** and **6.78 to 7.33 km/l** respectively against the declaration of **4.80 to 6.50 km/l**.
- ii) Fuel consumption km per tonne with two wheel and four wheel are recorded **40.6 to 42.55 ml** and **36.6 to 41.10 ml** respectively against the declaration of **25 to 40 ml**. This should be looked into for necessary corrective action.

15.3.1.7 Three-point linkage:

- i) The dimensions of width of ball of lower hitch point and Lateral distance from lower hitch point to centre line of tractor does not meet the requirement of IS:4468- 1997 (Part-I) (Reaffirmed in October, 2017). This should be looked into for necessary corrective action.
- ii) Some of the parameters of three-point linkage conform to Cat. I and some of them conform to Cat. II. Keeping in view the spirit of standardization, necessary improvement may be incorporated.

15.3.1.8 Components / Assembly Inspection:

During the final inspection the spring rate was found in the range 14.0 to 14.8 N/mm which is higher than the initial setting as specified by the manufacturer i.e., 13.68 N/mm. This should be looked into for necessary corrective action.

15.4 Maintenance / Service Problems:

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

15.5 Recommendation with regard to safety on tractor:

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

- i) Vertical distance from Seat Index Point to centre of clutch and brake pedal has been recorded as 350 and 350 mm respectively. These shall be provided as per IS:12343-1998, (Re-affirmed in January, 2019).
- ii) Vertical retainess at both side in clutch clutch pedal shall be provided as per IS:12239 (Part-1)-2018
- iii) Working clearance around the draft control lever and mudguard shall be provided as per IS:12239 (Part-2)-1999 (Re-affirmed in January, 2019).

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

- iv) There shall be provision of spark arrester in the exhaust system of tractor's engine as per IS:12239 (Part-2)-1999 (Re-affirmed in January, 2019).
- v) Vertical retainness at both side in clutch pedal shall be provided as per IS:12239 (Part-1)-2018
- vi) There shall be provision of master shield around the PTO shaft as per IS:4931-1995 (Reaffirmed in January, 2019).

15.6 Adequacy of Literature:

15.6.1 Following literature of following tractor models were supplied with the test sample for reference during the test.



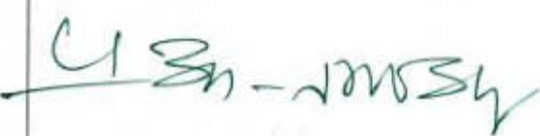
- i) Operator's Instruction Book of MF 7250 DI V1.1 tractor models
- ii) Part's Book of MF 7250 DI V1.1 tractor models
- iii) Workshop Service Manual of MF 7250 DI V1.1 tractor models

15.6.2 Literatures submitted by applicant are found sufficient, except the following:

- i) Service schedule and routine maintenance details for engine and air cleaner are provided in Operator's Instruction Book does not match with the details as specified in the application.
- ii) Brand name of coolant recommended for cooling system of tractor is not available in Operator's Instruction Book.

15.6.3 The literature should be brought out in national as well as other regional languages of India for guidance of users.

TESTING AUTHORITY:

| | |
|---|--|
| C.V. CHIMOTE TEST ENGINEER |  |
| Y. K. RAO SENIOR AGRICULTURAL ENGINEER |  |
| P. K. PANDEY DIRECTOR |  |

Test Report is compiled by: **C.S.Raghuwanshi**, Agricultural Engineer.

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|-------------------|--|
| T- 1600/2131/2021 | TAFE LTD., MF 7250 DI V1.1 TRACTOR – COMMERCIAL- (FIRST BATCH TEST) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2026 |

16. APPLICANT'S COMMENTS

| Para no. | Our reference | Applicant comments |
|----------|---|--|
| 16.1 | 15.3.1.2,15.3.1.3,15.3.1.4,15.3.1.5, 15.3.1.6,15.3.1.7,15.3.1.8 & 15.6.1 | We will study & take appropriate corrective actions. |

ANNEXURE - I

TRACTOR RUN HOURS DURING TEST

| A. | LABORATORY AND TRACK TESTS | HOURS |
|---------------|--|--------------|
| 1. | Running-in | 36.0 |
| 2. | PTO Performance test | 11.5 |
| 3. | Power lift and hydraulic pump performance test | 3.3 |
| 4. | Drawbar performance test | 18.6 |
| 5. | Brake test | 2.0 |
| 6. | Noise measurement | 1.5 |
| 7. | Mechanical vibration test | 1.3 |
| 8. | Air cleaner oil pull over | 3.7 |
| 9. | Nominal speed test | 0.9 |
| B. | HAULAGE TEST | 4.7 |
| C. | Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test | 1.9 |
| TOTAL: | | 85.4 |