



PREET 3549 CHALLENGER TRACTOR



सत्यमेव जयते

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, CO-OPERATION AND FARMERS WELFARE)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

ट्रैक्टर नगर, बुदनी (म.प्र.) ४६६ ४४५

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16. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

16.1 Evaluative (mandatory) / Non-evaluation (Non-mandatory) parameter applicable for qualifying Minimum Performance criteria as per Clause-4 (Table-1) of IS: 12207-2014 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: 12207-2014 | Values declared by the applicant (D)/ Requirement (R) | As observed | Whether meets the requirements (Yes/No.) |
|--------|---|--|---|---|-------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16.1.1 | PTO Performance : | | | | | |
| a) | Maximum power under 2 h test, (kW) (Natural ambient condition) | Evaluative | Declared value to be achieved with a tolerance of: -5 / +10% for PTO power >26 kW. -7.5/+10% for PTO power ≤ 26 kW or -5 / +10% for Engine power >26 kW. -7.5/+10% for Engine power ≤ 26 kW | 23.2 (D) | 21.6 | Yes |
| b) | Power at rated engine speed, (kW) | Non Evaluative | -do- | 23.2 (D) | 21.5 | Yes |
| c) | Specific fuel consumption corresponding to maximum power, (g/kWh) | Non Evaluative | ± 5% | 280 (D) | 283 | Yes |
| d) | Maximum equivalent crankshaft torque, (Nm) | Non Evaluative | ± 8% | 135 (D) | 137.51 | Yes |
| e) | Back-up torque, percent | Non Evaluative | 10 percent, min. | 10 percent, min. (D) | 36.65 | Yes |
| f) | Maximum operating temperature, (°C) | | | | | |
| | 1) Engine oil | Non 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) | 113 | Yes |
| | 2) Coolant (water) | 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. | 118 (D) | 96 | Yes |



| 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 | Maximum 2.89 (R) | 0.95 | Yes |
| h) | Smoke level | 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 per meter (R) | 0.09 | Yes |
| 16.1.2 Drawbar performance : | | | | | | |
| a) | Max. drawbar pull with ballast corresponding to 15 percent wheel slip, (kN) | Non Evaluative | Minimum 65% of static mass with ballast | 16.50 (D) 16.42 (R) Minimum | 18.97 | Yes |
| b) | Max. drawbar pull with standard ballast corresponding to 15 percent wheel slip, (kN) | Evaluative | Minimum 65% of static mass of tractor without ballast | 12.36 (D) 12.27 (R) Minimum | 14.37 | Yes |
| c) | Maximum drawbar power without ballast, (kW). | Evaluative | Minimum 80 % of PTO power as referred in Sl No. i) a) of PTO performance in case of tractors having total static mass > 1500 kg Minimum 75 % of PTO power as referred in Sl 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 Sl No. i) a) of engine performance in case of tractors which do not have a PTO shaft. | 18.6 (D) 17.3 (R) Minimum | 19.3 | Yes |
| d) | Max. transmission oil temperature, (°C) | Non Evaluative | The declared value should not exceed the maximum value specified by oil company | 120 (D) | 83 | Yes |
| 16.1.3 Power lift and hydraulic pump performance : | | | | | | |
| a) | Maximum lifting capacity throughout the range of lift, (kN): | | | | | |
| | 1) At hitch points | Non Evaluative | [Tolerance of minus 10%] | 11.75 (D) | 19.26 | 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 | 5.46 (D) 5.09 (R) Minimum | 16.07 | 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 | Observed value should not exceed 50 mm. | 50 (D) | 17 | Yes |

| 16.1.4 Brake performance at 25 kmph: | | | | | | | |
|--------------------------------------|---|------------|------------|---------|------------|------|-----|
| a) | Maximum stopping distance at a force, equal to or less than 600 N on brake pedal with road ballasted (m): | | | | | | |
| | 1) | Cold brake | Evaluative | 10 | 10 (R) | 7.88 | Yes |
| | 2) | Hot brake | Evaluative | 10 | 10 (R) | 7.98 | Yes |
| b) | Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s^2 (N) | Evaluative | 600 | 600 (R) | 268 to 284 | 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 (R) | Yes | Yes | |

| 16.1.5 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 |

| 16.1.6 Amplitude of mechanical vibrations at : | | | | | | | |
|--|----|---------------------------|----------------|-------------------|---------|-----|-----|
| | 1) | Left foot rest | Non Evaluative | 100 microns (max) | 100 (R) | 150 | No |
| | 2) | Right foot rest | | | 100 (R) | 200 | No |
| | 3) | Seat (with driver seated) | | | 100 (R) | 130 | No |
| | 4) | Steering wheel | | | 100 (R) | 100 | Yes |

| | | | | | |
|--------|---------------------------|----------------|-------------|----------------------------------|----------------|
| 16.1.7 | Air cleaner pull over (%) | Non Evaluative | 0.25% (Max) | Dry type air cleaner is provided | Not applicable |
|--------|---------------------------|----------------|-------------|----------------------------------|----------------|

| 16.1.8 Haulage requirements : | | | | | | | |
|-------------------------------|---|------------|----------------|----|--------------|--------------|-----|
| a) | Gross mass of the trailers, (tones): | | | | | | |
| | 1) | Two wheel | Non Evaluative | -- | 4.0 | 4.0 | Yes |
| | 2) | Four wheel | Evaluative | -- | 5.0 | 5.0 | Yes |
| b) | Distance travelled / litre of fuel consumption, (km/l): | | | | | | |
| | 1) | Two wheel | Non Evaluative | -- | 3.0 to 7.0 | 5.56 to 5.91 | Yes |
| | 2) | Four wheel | Evaluative | -- | 3.0 to 7.0 | 5.51 to 5.56 | Yes |
| c) | Fuel consumption (ml/km/tonne): | | | | | | |
| | 1) | Two wheel | Non Evaluative | -- | 25.0 to 50.0 | 42.3 to 45.0 | Yes |
| | 2) | Four wheel | Evaluative | -- | 25.0 to 50.0 | 35.8 to 36.3 | Yes |



| 16.1.9 | | 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. | The manufacturer has recommended that the tractor is not suitable for wetland cultivation (puddling operation). | Not recommend | Not applicable |
| 1) | Clutch assembly | | | | | |
| 2) | Brake housing | | | | | |
| 3) | Front axle hubs | | | | | |
| 4) | Engine oil | | | | | |
| 5) | Transmission oil | | | | | |

| 16.1.10 | | Safety features : | | | | |
|---------|--|-------------------|---|---|-------------------------------|------|
| a) | Guards against moving and hot parts | Evaluative | Belt drives, pulley, silencer, hydraulic pipes As per IS 12239 (part 2) | Requirements as per clause no.4 of table no.1 | Meets the requirement | Yes |
| b) | Lighting arrangement | Evaluative | As per CMVR | --do-- | Meets the requirement | Yes |
| c) | Seating requirement (Tractors having more than 1150 mm rear track width) | Non Evaluative | Should meet the requirements of IS 12343 (as amended from time to time) | --do-- | Does not meet the requirement | No |
| d) | Technical requirements for PTO shaft | Non Evaluative | Should meet the requirements of IS 4931 (as amended from time to time) | --do-- | Does not meet the requirement | No |
| e) | Dimension of three point linkage | Non Evaluative | Should meet the requirements of IS 4468 (part 1) (as amended from time to time) | --do-- | Does not meet the requirement | No |
| f) | Specification of linkage drawbar | Non Evaluative | Should meet the requirements of IS 12953 and IS 12362 (part 3) (as amended from time to time) | --do-- | Meets the requirement | Yes |
| g) | Specification of swinging drawbar | Non Evaluative | | --do-- | Not provided | N.A. |

| 16.1.11 | | Labelling of tractors (Provision of labelling plate): | | | | |
|---------|--------------------------------|---|--|---|-----------------|-----|
| 1) | Make | Evaluative | Should conform to the requirements of CMVR along-with declared value of PTO HP | - | PREET | Yes |
| 2) | Model | Evaluative | | - | 3549 CHALLENGER | Yes |
| 3) | Year of manufacture | Evaluative | | - | FEBRUARY, 2016 | Yes |
| 4) | Engine number | Evaluative | | - | P336 - 06062 | Yes |
| 5) | Chassis number | Evaluative | | - | 02163518345 | Yes |
| 6) | Declaration of PTO power, (kW) | Evaluative | | - | 23.2 | Yes |

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PREET 3549 CHALLENGER TRACTOR - Commercial (Initial)



| 16.1.12 Discard limit for: | | | | | | |
|----------------------------|--|----------------|------------------------------------|--------|-----------------|-----|
| (a) | Cylinder bore diameter, (mm) | Evaluative | To be declared by the manufacturer | 100.40 | 99.99 to 100.01 | Yes |
| (b) | Clearance between piston & cylinder liner at skirt, (mm) | Non Evaluative | -do- | 0.80 | 0.134 to 0.142 | Yes |
| (c) | Ring end gap (mm): | | | | | |
| | - Top comp. ring. | Evaluative | -do- | 2.0 | 0.35 to 0.40 | Yes |
| | - 2 nd comp. ring. | | -do- | 2.0 | 0.85 to 0.90 | Yes |
| | - Oil ring. | | -do- | 2.0 | 0.40 to 0.45 | Yes |
| (d) | Ring groove clearance (mm): | | | | | |
| | - Top comp. ring. | Evaluative | -do- | 0.50 | Tapered | -- |
| | - 2 nd comp. ring. | | -do- | 0.50 | 0.042 to 0.047 | Yes |
| | - Oil ring. | | -do- | 0.50 | 0.050 to 0.066 | Yes |
| (e) | Clearance of main bearings (mm): | | | | | |
| | - Diametrical clearance | Evaluative | -do- | 0.90 | 0.05 to 0.11 | Yes |
| | - Crankshaft end float | Evaluative | -do- | 1.0 | 0.18 | Yes |
| (f) | Clearance of big end bearings, (mm): | | | | | |
| | - Diametri-cal | Evaluative | To be declared by the manufacturer | 0.90 | 0.07 to 0.11 | Yes |
| | - Axial | | -do- | 1.0 | 0.35 | Yes |
| (g) | Clearance between king pin and bush, (mm) | Non Evaluative | -do- | 0.6 | 0.08 to 0.10 | Yes |
| (h) | Clearance between center pin and bush, (mm) | Non Evaluative | -do- | 1.0 | 0.14 to 0.16 | Yes |

| 16.1.13 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 |

| 16.1.14 CATEGORY OF BREAKDOWNS / DEFECTS : | | | | | |
|--|------------------------|--|---|-------------|--|
| S. No. | Category of breakdowns | Category (Evaluative / Non Evaluative) | Requirements as per IS: 12207-2014 | 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 |

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| 16.1.12 Discard limit for: | | | | | | |
|----------------------------|--|----------------|------------------------------------|--------------|-----------------|-----|
| (a) | Cylinder bore diameter, (mm) | Evaluative | To be declared by the manufacturer | 100.40 | 99.99 to 100.01 | Yes |
| (b) | Clearance between piston & cylinder liner at skirt, (mm) | Non Evaluative | -do- | 0.80 | 0.134 to 0.142 | Yes |
| (c) | Ring end gap (mm): | | | | | |
| | - Top comp. ring. | Evaluative | -do- | 2.0 | 0.35 to 0.40 | Yes |
| | - 2 nd comp. ring. | | -do- | 2.0 | 0.85 to 0.90 | Yes |
| - Oil ring. | -do- | | 2.0 | 0.40 to 0.45 | Yes | |
| (d) | Ring groove clearance (mm): | | | | | |
| | - Top comp. ring. | Evaluative | -do- | 0.50 | Tapered | -- |
| | - 2 nd comp. ring. | | -do- | 0.50 | 0.042 to 0.047 | Yes |
| | - Oil ring. | | -do- | 0.50 | 0.050 to 0.066 | Yes |
| | | | | | | |
| (e) | Clearance of main bearings (mm): | | | | | |
| | - Diametrical clearance | Evaluative | -do- | 0.90 | 0.05 to 0.11 | Yes |
| | - Crankshaft end float | Evaluative | -do- | 1.0 | 0.18 | Yes |
| (f) | Clearance of big end bearings, (mm): | | | | | |
| | - Diametri-cal | Evaluative | To be declared by the manufacturer | 0.90 | 0.07 to 0.11 | Yes |
| | - Axial | | -do- | 1.0 | 0.35 | Yes |
| (g) | Clearance between king pin and bush, (mm) | Non Evaluative | -do- | 0.6 | 0.08 to 0.10 | Yes |
| (h) | Clearance between center pin and bush, (mm) | Non Evaluative | -do- | 1.0 | 0.14 to 0.16 | Yes |

| 16.1.13 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 |

| 16.1.14 CATEGORY OF BREAKDOWNS / DEFECTS : | | | | | |
|--|------------------------|--|---|-------------|--|
| S. No. | Category of breakdowns | Category (Evaluative / Non Evaluative) | Requirements as per IS: 12207-2014 | 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 |

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| | | | | | |
|----|------------------|------------|--|------|-----|
| 4. | Total breakdowns | Evaluative | In no case, the total number of breakdowns should exceed five, that is, (2 major + 3 minor) or 5 minor breakdowns. | None | Yes |
|----|------------------|------------|--|------|-----|

| 16.2 Optional requirements as per Clause-4 (Table-2) of IS:12207-2014: | | | | |
|--|-----------------|--|--------------|--|
| S. No. | Characteristic | Requirements as per IS: 12207-2014 | As observed | Whether meets the requirements (Yes/No.) |
| 1. | Fitment of ROPS | With a provision for fitment of ROPS. | Not provided | No |
| | | If ROPS fitted it should meet the requirement of IS: 11821-1992. | Not provided | Not applicable |
| 2. | Accessories | Trailer hitch, front tow hook, linkage drawbar may be provided. | Provided | Yes |

16.3 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 in March, 2009)] : **Conforms**
- ii) Agricultural tractors – Rear mounted power take-off - Types 1, 2 and 3 (third revision) [IS: 4931-1995 (Reaffirmed in March, 2009)] : **Does not conform**
- iii) Agricultural wheeled tractors - Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS 4468 (Part-1):1997 (Reaffirmed in February, 2012)] : **Does not conform**
- iv) Drawbar for agricultural tractors – Link type [IS 12953:1990 (Reaffirmed in February, 2012)] : **Conforms**
- v) Agricultural tractors - Operator's seat technical requirement [IS 12343 –1998 (First revision) (Reaffirmed in March, 2009)] : **Does not conform**
- vi) Guide for safety & comfort of operator of agricultural tractors: Part 1 General requirements (first revision) : [IS 12239 (Part-1)-1996 (Reaffirmed in February, 2012) / ISO 4254-1:1989] : **Does not conform**
- vii) Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) IS 12239 (Part-2)-1999 (Reaffirmed in March, 2009)] : **Does not conform**
- viii) Tractors and machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Symbols for Agricultural Tractors and Machinery [IS: 6283 (Part-2) – 2007(Reaffirmed in March, 2009) / ISO 3767-2:1991)] : **Does not conform**
- ix) Guidelines for location and operation of operator controls on agricultural tractors and machinery (first revision) (IS: 8133 – 1983) (Reaffirmed in March, 2009) / ISO 3789: 1982] : **Does not conform**
- x) Agricultural Tractor & Machinery Lighting device for travel on public roads [IS: 14683-1999 (Reaffirmed in March, 2009)] : **Conforms**



16.4 Salient Observations:

16.4.1 Laboratory tests:

16.4.1.1 PTO Performance:

- i) The maximum PTO power was recorded as **21.6 kW** against the declaration of **23.2 kW**, which meets the requirement of IS: 12207-2014 with regard to tolerance limit.
- ii) The specific fuel consumption corresponding to maximum power was recorded as **283 g/kWh**, against the declaration of **280 g/kWh**, which is within the tolerance limit of IS: 12207-2014.
- iii) The backup torque is **36.65%**.

16.4.1.2 Drawbar Performance :

- i) During ten hours drawbar test, creeping of RHS rear tyre over the rim was observed as 25 mm. This should be looked into for necessary corrective action.

16.4.1.3 Hydraulic Performance:

- i) The moment about rear axle was computed as 23.86 kN-m at standard frame, which is considered on higher side as compared to the moment from front axle i.e. 15.65 kN-m. It is therefore, recommended that the lifting capacity of the hydraulic system may be reduced suitably or standard ballast mass at front axle may be provided to avoid the front lifting of the tractor.
- ii) The maximum tilt angle of mast from vertical recorded as 8.40 degree against the minimum requirement of 10 degree. This should be looked into for necessary corrective action.

16.4.1.4 Mechanical Vibration:

The amplitude of mechanical vibration marked as (*) in chapter-8 of this report is on higher side especially at LHS and RHS foot rest & operator's seat. This calls for reduction in amplitude of vibration in view of improving service life of the component(s) and the operator's comfort.

16.4.1.5 Three point linkage :

The lateral distance from lower hitch point to center line of tractor does not meet the requirements of IS-4468-(Part I)-1997. This should be looked into for necessary corrective action.

16.4.1.6 Operator's Seat :

The inclination of seat towards rear direction does not meet the minimum requirements of IS: 12343-1998 (Re-affirmed in March, 2009). This should be looked into for corrective action.

16.4.1.7 Symbols for operator's controls and displays:

Oil, grease lubrication type and its frequency are not identifiable with the symbols as per IS: 6283 (Part I & II)-1998. This should be looked into for corrective action.

16.4.1.8 Location and movement of operator's controls:

Location and movement of operator's controls meets the requirements of IS: 8133-1993, **except the following:**

- i) The fuel shut off lever does not remain in 'STOP' position without sustained manual effort.
- ii) Differential lock

16.4.1.9 Operator's work place:

Operator's work place meets the requirements of IS-12239(part-I)—1996, **except the following:**

- i) Spark arresting device in the exhaust system is not provided.
- ii) Width of foot step is not provided as per the above standard.
- iii) Differential lock



- 16.4.1.10 Constructional requirement with regard to safety:**
The working clearance between Position control and draft control lever has not been provided as per IS: 12239(Part-II) 1999. This should be looked into for corrective action.
- 16.4.1.11 Specification of Power Take Off Shaft:**
The dimensions "dø" of the PTO shaft does not meet the requirements of IS-4931-1995. This should be looked into for necessary corrective action.
- 16.4.1.12 PTO Master shield:**
PTO master shield not provided on tractor as per the requirements of IS: 4931-1995. This should be looked into.
- 16.4.2 Field performance:**
- 16.4.2.1 Wet land cultivation (Puddling Operation):**
The manufacturer has recommended that the tractor is not suitable for wetland cultivation (puddling operation) and therefore, the wetland cultivation (puddling operation) was not conducted. It is recommended that in all the literature this fact that the tractor is not suitable for wetland (puddling) operation should be mentioned clearly & boldly in all the relevant literature of the tractor & also a cautionary notice regarding non-suitability of tractor for puddling operation may be displayed on the bonnet of the tractor.
- 16.5 Maintenance / Service Problems:**
No noticeable maintenance/ service problem was observed during the test.
- 16.6 Recommendation with regard to safety on tractor**
The following requirements, inter alia, may be considered for incorporation on the tractor:
- i) Provision for spark arresting device in the exhaust system.
 - ii) Provision of differential lock.
 - iii) PTO shaft master shield should be provided to avoid the accident.
 - iv) The fuel shut-off lever does not remain in "STOP" position.
 - v) The working clearance between the draft control lever & position control lever should be provided as per the requirement of relevant Indian Standard.
 - vi) The rear tyres should be guarded so that operator's feet may not come in contact with the wheels.
 - vii) The lateral distance from lower hitch point to center line of tractor should be provided as per the requirement of relevant Indian Standard.
- 16.7 Adequacy of Literature supplied with machine:**
The following literature was supplied with the tractor for reference during the test.
- a) Operator's Manual in respect of PREET 3549 CHALLENGER tractor.
 - b) Tractor Parts Catalogue in respect of PREET 3549 CHALLENGER tractor.
 - c) Service Manual in respect of PREET 3549 CHALLENGER tractor.
- 16.7.1** The supplied literature was found adequate.
- 16.7.2** The literatures supplied by applicant should also in national as well as other regional languages for the guidance of users and service personnel.



17. 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 | 11 Months (October, 2016 to September, 2017) | No | Due to seasonal constraints |

TESTING AUTHORITY:

C.V.CHIMOTE
TEST ENGINEER

Y.K. RAO
SENIOR AGRICULTURAL ENGINEER

J.J.R.NARWARE
DIRECTOR

This test report is compiled by **Shri. Shwetabh Singh, Senior Tech. Assistant**

18. APPLICANT'S COMMENTS

| Para No. | Our Reference | Applicant's comments |
|----------|----------------------|--|
| 18.1 | 16.1.6 (1),(2) & (3) | We will look into for corrective action. |
| 18.2 | 16.1.10 (c) | |
| 18.3 | 16.1.10 (d) | |
| 18.4 | 16.1.10 (e) | |