### 1.0 General Information:

**Location of Manufacturing Plant (s):**

1.1 Address of Manufacturing Plant:

- [ ]

1.2 Telephone Number (s):

- [ ]

1.3 Fax Number (s):

- [ ]

1.4 E-mail Address:

- [ ]

1.5 Website:

- [ ]

1.6 Name and Designation of contact person:

- [ ]

1.7 Telephone Number / E-mail ID of contact person:

- [ ]

### 2.0 Detailed Technical Specifications of the tractor:

2.1 Make:

- [ ]

2.2 Model:

- [ ]

2.3 Brand name, if any:

- [ ]

2.4 Indian Trade name, if imported:

- [ ]

2.5 Type:

- [ ]

2.6 Variant(s) if any:

- [ ]

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variant Model</th>
<th>Brand name, if any</th>
<th>Variant Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.7 Location of the identification Mark/code for:

- Engine identification Number
- Chassis identification Number
- Gearbox/Transmission housing identification Mark
- Hydraulic System identification Mark
- Year of Manufacturing
- Other major assemblies, if any

### 2.8 Country of origin:

- [ ]
2.9 Method of selection (Applicant or by testing Authority):

2.11 Duration of running-in (h):

- Engine:
- Transmission:

3.0 Specifications of Prime Mover:

3.0.1 Make:

3.0.2 Model:

3.0.3 Type:

3.0.4 Type of suction, [Naturally aspirated / super charged / turbo charged (Please specify)]

3.0.5 Serial Number:

3.0.6 Year of manufacture:

3.0.7 Country of origin

3.0.8 Name and address of engine manufacturer:

3.0.9 Engine speed (Manufacturers recommended production settings) (rpm):

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Max speed at no load i.e. high idling speed:

Low idling speed:

Speed at maximum torque:

Rated speed, (rpm):

- For PTO work:
- For drawbar work:

3.1 Cylinders and Cylinder Head:

3.1.1 Number of cylinders:

3.1.2 Disposition:

3.1.3 Nominal bore (mm):

3.1.4 Stroke (mm):

3.1.5 Capacity as specified by applicant (cc):

3.1.6 Compression ratio:

3.1.7 Type of cylinder liners [Dry/wet, replaceable/ Non replaceable (please specify)]

3.1.8 Cylinder Head:

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<thead>
<tr>
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<td>Date:</td>
<td>Designation: S.T.E.</td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td>Date:</td>
</tr>
</tbody>
</table>
3.1.9 Type :
3.1.10 Type of combustion chamber :
3.1.11 Number of valves per cylinder :
   - Inlet :
   - Exhaust :
3.1.12 Arrangement of valves :
3.1.13 Minimum cross section area of ports (cm²):
   - Inlet :
   - Outlet :
3.1.14 Valve Clearance (mm):
   - Inlet :
   - Exhaust :
3.1.15 No. of valve springs /valve
3.1.16 Valve lift
   - Inlet :
   - Exhaust :
3.1.17 Free length of valve springs when new :
   Inner / Outer (mm)
3.1.18 Compressed (assembled) length of valve springs (mm)
3.2 Fuel Supply System:
   - Type :
3.2.1 Fuel tank:
   - Make :
   - Material :
   - Capacity, ( l ) :
   - Location :
   - Type of mounting :
   - Provision for draining of sediments/water :
   - Type of strainer at filling mouth :
3.2.2 Water Separator (if provided):
   Make :
   Type :
   Location :
3.2.3 Primary Pump (Fuel transfer pump/ Feed pump):
   - Make :
   - Model/Group combination No. :
   - Type :
   - Location :
   Method of drive :
   - Whether sediment bowl has been provided: Yes / No
3.2.4 Fuel Filters:

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</tbody>
</table>
3.2.5 Type of filter element(s):
- Primary:
- Secondary:
- Capacity of Secondary filter bowl with filter elements:

3.2.6 Additional filter(s), if any:
- Make:
- Type:

3.2.7 Fuel Injection Pump:
- Make:
- Model / Group Combination No.:
- Type:
- Serial number:
- Injection timing (by spill cut off method): degrees before TDC
- Whether arrangement for Advancing / retarding fuel injection is provided, if yes, give range.
- Firing order:
- Fuel delivery for---No. strokes at pump speed of --- rpm, (mm³) (Test bench figures):

3.2.8 Governor:
- Make:
- Model/group combination No.:
- Type:
- Rated engine speed (rpm)

Governed range of engine speed (rpm)

3.2.9 Injectors:
- Make:
- Model/group combination No.:
- Type:
- No. of holes in each injector:
- Dia of holes (mm):
- Opening pressure (manufacturer’s production setting), MPa (kgf/cm²):

3.3 Air Intake System:
3.3.1 Pre-cleaner:
Name of Manufacturer/Applicant: 
Document No, if any and its Revision status: 
Name of Testing Agency: CFMT&TI, BUDNI (M.P.)

Signature: 
Name: 
Designation: 
Date: 

Make: 
Type: 
Location: 

3.3.2 Air Cleaner:
- Make: 
- Type: 
- Location: 
- Suction pressure at Maximum power, (kPa)/(mm of Hg): 

3.3.3 If dry type:
- Make: 
- No. of elements: 
Size of element (mm): 
Inner element: 
Outer element: 
- Material: 
- Vacuum indicator and its range (mm of water/mm of Hg): 
- Whether dust unloading valve has been provided: (Yes/No) 
- Servicing/maintenance schedule: 

3.3.4 Turbocharger/Supercharger/EGR (If fitted):
- Make: 
- Model: 
- Type: 
- Boost (Pressure ratio): 
- Speed at rated engine speed (rpm): 
- Method of lubrication: 
- Location: 

3.5 Exhaust System:
- Make: 
- Type of silencer: Up drought/down drought [cylindrical/elliptical] 
Location on tractor: 
- Exhaust Gas pressure at maximum power, kPa/(mm of Hg): 
- Provision of spark arresting device, (Yes/No): 
- Make and Type of spark arresting device, if provided: 

3.6 Lubrication System:
- Type: Force Feed-Cum-Splash/ specify if other 
- Minimum permissible lubricating oil pressure, kPa (kgf/cm²): 
- Type of cooling device / inter cooler, if any: 

3.6.1 Lub oil filter (s): 

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</tr>
</tbody>
</table>
3.6.2 Lub. oil pump:
- Make :
- Model :
- Type :
- Method of drive :
- Pressure release setting of relief valve, kPa (kgf/cm²) :
- Pump speed at rated engine speed (rpm) :
- Pump discharge at rated engine speed (l/min) :

3.7 Cooling System:
- Type : Air cooled or Force circulation of coolant/water

3.7.1 Radiator:
- Make :
- Model, if any :
- Outer dimensions (mm) :
- Size of frontal area, (cm²) :
- Recommended Pressure of cap, kPa/ (kgf/cm²) :
- Name & or brand name of coolant :
- Coolant water ratio (as applicable) :
- Bare radiator capacity (l) :
- Capacity of expansion tank (l) :
- Total capacity of cooling system (l) :

3.7.2 Air cooled system, If provided:
Details of blower: :
Blower capacity at rated engine speed (m³/h) :
Method of drive :

3.7.3 Fan:
- Make and type :
- Number of blades :
- Outer dia of fan, (mm) :
- Inner dia of cowl :
- Method of drive :

3.7.4 Coolant pump:
- Make and Type :
- Type of impeller, :
  closed/open/semi-open

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</table>
- Dia of impeller (mm) :
- Number of blades/vanes :
- Number and Type of bearings :
- Arrangement for Lubrication :
- Period/Frequency of lubrication :
- Method of drive :
- Size of drive belt and No. (s) :

3.7.5 **Means of Temp control :**
- Type :
- Location :
- Opening temp. of thermostat valve (°C) :
- Temp. of fully open thermostat valve (°C) :

3.8 **Starting System:**
- Type :
- Aid for cold starting :
- Any other device for easy starting :

3.9 **Electrical System:**
3.9.1 **Batteries:**
- Make :
- Model, if any :
- Type :
- Capacity and rating : --------- Ah at 20 hours discharge rating
- Location :
- Ground polarity :

3.9.2 **Self Starter:**
- Make :
- Model :
- Capacity & Power rating :
- Serial Number :

3.9.3 **Generator (Alternator/Dynamo):**
- Make :
- Model :
- Type : Dynamo/Alternator
- Output rating : --------- V, -------- Amp @ speed of -------- rpm
- Power rating : -------- watts continuous @ ---- rpm
- Serial Number :

3.9.4 **Voltage regulator:**
- Make :
- Model :
- Type :
- Location :

---

<table>
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</tbody>
</table>
3.9.5 Lighting:

Standard to which it conforms(IS:14683-1999/AIS:030):

Details of Lighting and reflectors:

<table>
<thead>
<tr>
<th>Description</th>
<th>No. of lights and capacity of bulbs, (W)</th>
<th>Shape and size of light(s), (mm)</th>
<th>Height of centre of lights above ground level, (mm)</th>
<th>Distance of centre of light from outer edge of the tractor, (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Front Lights:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head lights</td>
<td></td>
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</tr>
<tr>
<td>Parking lights</td>
<td></td>
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</tr>
<tr>
<td>Turn indicator lights</td>
<td></td>
<td></td>
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<tr>
<td>Hazard Warning lights</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Reflectors</td>
<td></td>
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<tr>
<td><strong>Rear Lights:</strong></td>
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<tr>
<td>Parking lights</td>
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<tr>
<td>Turn indicator lights</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazard Warning lights</td>
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<tr>
<td>Stop lights</td>
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<td></td>
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<tr>
<td>Registration plate lights</td>
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<td></td>
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</tr>
<tr>
<td>Reflectors</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Any other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.10 Details of Instruments panel:

i) Engine speed –cum-cumulative run hour meter. Provided/ not provided
ii) Lubricant oil pressure gauge/ indicator lamp Provided/ not provided
iii) Coolant (water) temperature gauge (with colour zones). Provided/ not provided
iv) Fuel level gauge (with colour zones). Provided/ not provided
v) Main switch (key-turn type). Provided/ not provided
vi) Light switch (rotary type). Provided/ not provided
vii) Turn indicator light switch Provided/ not provided
viii) Hazard light switch Provided/ not provided
ix) Head light (long beam) indicator lamp. Provided/ not provided
x) Battery charging indicator lamp. Provided/ not provided
xi) Turn indicator-cum-hazard indicator tell-tale Provided/ not provided
xii) Fuel shut-off knob Provided/ not provided
xiii) Horn push button. Provided/ not provided
xiv) Specify other if any Provided/ not provided

3.11 Transmission:

- Make : 
- Model/ identification number : 
- Type : Mechanical / Hydrostatic
Transmission ratio : Please enclose line diagram of complete transmission system as Annexure-III
Arrangement of power transmission : 2WD / 4WD

3.11.1 Clutch:
- Make : 

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| Name                           |                                             | Name : J.J.R. NARWARE                      |
| Designation                    | Date :                                      | Designation : S.T.E.                        |
| Date                           |                                             | Date :                                      |
3.11.2 Gear Box:
Make : 
Model/identification mark : 
Type : Combination of constant & sliding mesh/ Constant mesh/ Synchro mesh/ Specify if other
Number of speeds : 
- Forward : 
- Reverse : 
Location of main gear shifting levers : Front /LHS/RHS of operator
Location of speed range selector (L/M/H) lever : Front /LHS/RHS of operator
- Gear shifting pattern : (please give sketch)

3.11.3 Nominal Speed:

<table>
<thead>
<tr>
<th>Movement</th>
<th>Gear No.</th>
<th>No. of engine revolutions for one revolution of driving wheel</th>
<th>Nominal speed at rated engine speed when fitted with size tyres of mm rolling index (kmph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.11.4 Number of front wheel revolutions for one revolution of rear wheel (for 4WD) : 

3.11.5 Make of Rear axle :
Make : 
Model /identification number :

3.11.6 Rear Differential:
- Type : Crown wheel & pinion with differential unit accommodated inside the differential housing/ specify if other
- Speed reduction through crown wheel and bevel pinion : (Please specify up to three decimal places)

3.11.7 Differential lock:
Type : Dog clutch/ pin type
Location :
Method of operation :

3.11.8 Rear Final Drive:
- Type :
- Speed reduction through rear final drive :
- Location :

3.11.9 Front Axle:
Make :
Model /identification number :

3.11.10 Front Differential (In case of 4WD):
- Make :
- Type :
- Speed reduction through crown wheel and bevel pinion :
- Location :

3.11.11 Front Final Drive (In case of 4WD):
- Type :
- Speed reduction through front final drive :
- Location :

3.12 Power Lift (Hydraulic System):
- Make :
- Model/ identification mark :
- Type :
- Number & name of control levers/knobs :
- Method of draft sensing :
- Provision & type of transporting lock :
- Type of hydraulic ram cylinder(s) :
- Number & location of internal ram cylinders :
- Number & location of external ram cylinders (If fitted) :

3.12.1 Pump:
- Make :
- Type :
- Model, if any :
- Location :

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- Speed of pump corresponding to rated engine speed, (rpm) :
- Rated speed of pump, (rpm) :
- Discharge of pump at rated engine speed and minimum pressure, (l/min) :
- Crack-off pressure of relief valve, MPa/(kgf/cm²) :
- Pressure sustained by open relief valve, MPa/(kgf/cm²) :
- Max. hydraulic power, (kW) :
- Pump delivery rate at max. power, (l/min) :
- Pressure corresponding to max. power, MPa/(kgf/cm²) :

3.11.2 No. and Type of Oil filter(s) :
- Location of filters

3.12 Three Point Linkage:
- Category :
- Standard to which it conforms : [Cat-N/Cat-I/Cat-II]
- Whether any category adopter provided : Yes / No

3.12.1 Linkage Drawbar:
- Category :
- Conforms to : IS:………………

3.12.2 Swinging Drawbar:
- Type :
- Conforming to : IS:-------------

3.13 Power Take-off shaft:
- Number of shaft(s) :
- Type : Type-I/ Type-II
- Number of speeds available : Single/dual speeds
- whether ground PTO speed, provided : Yes/No
- Location of PTO Shaft :
- Method of engaging :
- PTO speed corresponding to rated engine speed, (rpm) :
- Other speeds corresponding to rated engine speed (rpm) (If provided) :
- Engine to PTO speed ratio : (Please specify up to three decimal places)
- Distance behind rear axle, (mm) :
- Whether PTO Shaft is capable of transmitting the full power of engine :
- Master shield provided : Yes / No

3.14 Towing Hitch:
3.14.1 Front:
- Type :
- Location :
- Height above GL (mm) :
- Arrangement for height adjustment if any :
- Dia of pin hole (mm) :

3.14.2 Rear:
- Type :
- Location :

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</table>
- Height above Ground level (mm)
- Maximum
- Minimum
- Method of changing height

3.15  **Steering System:**
- Make :
- Type of system : Mechanical/ Hydrostatic/Hydraulic or pneumatic assisted
- Type of steering gearbox :
- Location of steering gearbox :
- Dia of steering control wheel (mm) :

3.15.1  **Details of hydrostatic steering system, if provided:**
- Make & Type of distributor :
- Pressure setting of relief valve :
- Make of pump :
- Type of pump : Gear / Lobe / Plunger / specify if other
- Location of pump :
- Method of drive of pump :
- Make & type of hydraulic ram cylinder :
- Location of ram cylinder :

3.16  **Brake:**
3.16.1  **Service Brake:**
Make
- Type : Hydraulic/Mechanical/Pneumatic/ any other
- Type of brake disc : Shoe /Dry / Oil immerse
- Number of brake disc :
- Area of lining on each wheel side (cm²) :
- Material of brake liner :
- Location of braking system :
- Method of operation : Individual / combine RHS foot pedal operated

3.16.2  **Parking brake:**
- Type :
- Location :
- Method of operation :

3.17  **Wheel Equipment:**
3.17.1  **Steered Wheel(s):**
- Make :
- Type :
- Number(s) :
- Size and Ply rating of tyres :

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- Max. permissible load on each tyre at inflation pressure recommended for road work kN (kgf)

Recommended inflation pressure, kPa/(kgf/cm²):
- For field work :
- For road work :
- Standard track width, (mm) :
- Other track width(s), (mm) :
- Method of changing track width :

3.17.2 Wheel Rim:
- Make :
- Type :
- Size (should conform to the requirement of CMVR) :

3.17.3 Drive Wheel(s):
- Make :
- Type :
- Number :
- Size and Ply rating of tyres :
- Max. permissible load on each tyre at inflation pressure recommended for road work kN (kgf)

Recommended inflation pressure, kPa/(kgf/cm²):
- For field work :
- For road work :
- Standard track width, (mm) :
- Other track width(s), (mm) :
- Method of changing track width :

3.17.4 Wheel Rim:
- Make :
- Type :
- Size (should conform to the requirement of CMVR) :

3.17.5 Wheel base:
Method of changing wheel base, if any :

3.18 Operator’s Seat:
- Make :
- Type : Cushioned / Bucket
- Type of suspension : Helical coil springs / specify if others
- Type of dampening : Hydraulic shock absorber/ specify if others

- Range of adjustment (mm):

<table>
<thead>
<tr>
<th>Vertical</th>
<th>Lateral</th>
<th>Longitudinal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Manufacturer/ Applicant</th>
<th>Document No, if any and its Revision status</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Signature :</td>
<td>Make and Model of Tractor: :</td>
<td>Signature :</td>
</tr>
<tr>
<td>Name :</td>
<td>Name : J.J.R. NARWARE</td>
<td></td>
</tr>
<tr>
<td>Designation :</td>
<td>Designation : S.T.E.</td>
<td></td>
</tr>
<tr>
<td>Date :</td>
<td>Date :</td>
<td></td>
</tr>
</tbody>
</table>
3.19 Roll Over Protective structure, (if fitted should be tested & should meet the requirements as per IS: 11821, and enclose a copy of the test certificate):
Make/Model/Type:
Manufacturer's name and address:
Protective device:
- Cab/frame/rollguard/other:
Tiltable/not tiltable:
Test certificate approval number:
Date of approval:

3.20 Mass and Ballast:

<table>
<thead>
<tr>
<th>Front</th>
<th>Rear</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.20.1 Unballasted Tractor: Mass of the tractor in working order with full tanks &amp; radiators. [Optional front &amp; rear weights (ballast), tyre ballast, the tractor operator, mounted implements, mounted equipments or any specialized components are not included].</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.20.2 Tractor with standard ballast: Mass of the tractor in working order with standard ballast of ------- kgf at front and ------- kgf at rear, full tanks & radiators. [Tyre ballast, the tractor operator, mounted implements, mounted equipments or any specialized components are not included].

3.20.3 Approximate recommended ballast for different test:

<table>
<thead>
<tr>
<th>Ballast mass</th>
<th>For drawbar test</th>
<th>For field test</th>
<th>For road test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front - C.I. Ballast (kg)</td>
<td>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Water ballast (kg)</td>
<td>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear - C.I. Ballast (kg)</td>
<td>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Water ballast (kg)</td>
<td>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front - Location of C.I. ballast weights</td>
<td>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear - Location of C.I. ballast weights</td>
<td>:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.20.4 Approx. Mass of tractor in Ballasted condition (kg):

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Test</th>
<th>Front</th>
<th>Rear</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>For drawbar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>For Field tests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>For Puddling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>For Haulage</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.21 Overall Dimension of Tractor (mm):
- Length:
- Width:
- Height:
- Ground clearance(mm): ---------------, below transmission housing or any other part.

3.22 Colour of tractor:
- Chassis & Engine:

Name of Manufacturer/ Applicant

Document No, if any and its Revision status

Name of Testing Agency: CFMT&TI, BUDNI (M.P.)

Signature:
Name:
Designation:
Date:
3.23 Lubricants/Coolant:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particulars</th>
<th>Recommended grade</th>
<th>Capacity (l)</th>
<th>Change period (h)</th>
<th>Filter change period (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Air cleaner oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>Bare engine sump</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>Total lub. oil of engine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv)</td>
<td>Steering housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>Gearbox housing oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi)</td>
<td>Differential housing oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii)</td>
<td>Front axle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii)</td>
<td>Rear axle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix)</td>
<td>Final drive (front)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x)</td>
<td>Final drive (rear)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi)</td>
<td>Hydraulic system (*)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xii)</td>
<td>Other (Brake etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xiii)</td>
<td>Grease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) State if common with gear box and rear axle.

3.24 Number of lubricating points:

- Oiling: 
- Grease nipples: 
- Grease cups: 

3.25 Tightening torque (kgmf):

- i) Cylinder head nut & bolts: 
- ii) Main bearings nut & bolts: 
- iii) Big end bearings nut & bolts: 
- iv) Flywheel bolts: 

4.0 Performance Characteristics (to declare the following please refer IS:12207-2008):

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Requirements/Tolerance as per IS:12207-2008</th>
<th>Declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

4.1 PTO Performance:
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Max. power under 2 h test, (kW) (Natural ambient condition)</td>
<td>Declared value to be achieved with a tolerance of: -5 / +10% for PTO power &gt;35hp, -7.5/+10% for PTO power ≤ 35 hp</td>
</tr>
<tr>
<td>b)</td>
<td>Power at rated engine speed, (kW)</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Specific fuel consumption corresponding to maximum power, (g/kWh)</td>
<td>± 5%</td>
</tr>
<tr>
<td>d)</td>
<td>Maximum equivalent crankshaft torque, (Nm)</td>
<td>± 8%</td>
</tr>
<tr>
<td>e)</td>
<td>Equivalent crankshaft torque at maximum power, Nm (kgf-m)</td>
<td>--</td>
</tr>
<tr>
<td>f)</td>
<td>Back-up torque, percent</td>
<td>7 percent, min.</td>
</tr>
<tr>
<td>g)</td>
<td>Maximum operating temperature (°C)</td>
<td>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.</td>
</tr>
<tr>
<td>h)</td>
<td>Engine oil consumption, (g/kWh)</td>
<td>Not exceeding 1% of SFC at max. power under High ambient conditions</td>
</tr>
<tr>
<td>i)</td>
<td>Smoke level [At 80 % load in a speed bend of Maximum power and 55% of speed corresponding to Maximum power or 1000 rpm whichever is high]</td>
<td>Maximum light absorption coefficient of 3.25 per metre or equivalent BOSCH No. 5.2 or 75 Hatridge value (As per CMVR)</td>
</tr>
</tbody>
</table>

### 4.2 Drawbar Performance:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Max. drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)</td>
<td>Minimum 65% of static mass with ballast</td>
</tr>
<tr>
<td>b)</td>
<td>Max. drawbar pull without ballast/ with standard ballast corresponding to 15 percent wheel slip, (kN)</td>
<td>Minimum 65% of static mass of tractor without ballast/ with standard ballast</td>
</tr>
<tr>
<td>c)</td>
<td>Maximum drawbar power without ballast/with standard ballast, (kW).</td>
<td>Min. 80% of PTO power as referred in 4.1 I(a) of PTO performance</td>
</tr>
<tr>
<td>e)</td>
<td>Max. transmission oil temperature (°C)</td>
<td>The declared value should not exceed the maximum value specified by oil company</td>
</tr>
</tbody>
</table>

### 4.3 Power lift and hydraulic pump performance:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Maximum lifting capacity throughout the range of lift, (kN):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- At hitch points</td>
<td>Tolerance, minus 10%</td>
</tr>
<tr>
<td></td>
<td>- With the standard frame</td>
<td>The lift capacity should at least be 18 kg/PTO hp. and it should be 16 kg/engine hp where the tractor is not provided with a PTO shaft</td>
</tr>
<tr>
<td>b)</td>
<td>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)</td>
<td>Tolerance ± 5 mm</td>
</tr>
</tbody>
</table>

### 4.4 Brake performance at 25 kmph travel speed:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Maximum stopping distance at a force, equal to or less than 600 N on brake</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Manufacturer/ Applicant</th>
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<th>Name of Testing Agency: CFMT&amp;TI, BUDNI (M.P.)</th>
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<td>Signature :</td>
</tr>
<tr>
<td>Name :</td>
<td>Designation :</td>
<td>Name : J.J.R. NARWARE</td>
</tr>
<tr>
<td>Date :</td>
<td>Designation : S.T.E.</td>
<td>Date :</td>
</tr>
<tr>
<td>Pedal with ballast, (m):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>- Cold brake</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>- Hot brake</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>b) Maximum force exerted on the brake pedal to achieve a deceleration of (2.5 \text{ m/s}^2) (N)</td>
<td>(600)</td>
<td></td>
</tr>
<tr>
<td>c) Whether parking brake is effective at a force of (600) N at foot pedal(s) or (400) N at hand lever</td>
<td>Yes / No</td>
<td></td>
</tr>
</tbody>
</table>

4.5 Noise measurement:

a) Maximum ambient noise emitted by the tractor dBA: 88 (As per CMVR)

b) Maximum noise at operator's ear level dBA: 98 (As per CMVR)

4.6 Amplitude of mechanical vibrations at:

- Foot rest (left / right): 100 microns (max)
- Seat (with driver seated): 100 microns (max)
- Steering wheel: 100 microns (max)

4.7 Air Cleaner Oil Pull Over:

Max. percentage of oil pull over: 0.25 % Maximum

4.8 Haulage requirements:

<table>
<thead>
<tr>
<th>Four wheel</th>
<th>Two wheel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross mass of the trailers, (tones):</td>
<td>--</td>
</tr>
<tr>
<td>Distance travelled / litre of fuel consumption, (km/l):</td>
<td>--</td>
</tr>
<tr>
<td>Fuel consumption (ml/km/tonne):</td>
<td>--</td>
</tr>
</tbody>
</table>

4.9 Wetland cultivation:

Whether the tractor is recommended for wetland cultivation: Yes / No

[The identified assemblies should essentially meet the requirement of IS: 11082. No water ingress in the identified assemblies]

4.10 Limits and Tolerances:

4.10.1 Initial setting and discard limits of following measurements:

<table>
<thead>
<tr>
<th>Initial Setting</th>
<th>Discard limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Cylinder bore dia (mm)</td>
<td></td>
</tr>
<tr>
<td>ii) Cylinder bore taperness and ovality (mm)</td>
<td></td>
</tr>
<tr>
<td>iii) Piston dia at the skirt (mm)</td>
<td></td>
</tr>
<tr>
<td>iv) Piston to cylinder clearance at the skirt (mm)</td>
<td></td>
</tr>
</tbody>
</table>

v) Piston ring end gap (mm):

- Compression rings
- Oil rings

vi) Piston ring groove clearance (mm):

- Compression rings
- Oil rings

vii) Clearance of main bearings (mm):

Diometrical clearance
Crankshaft end float

viii) Clearance of big end bearings, (mm):

Diometrical
Axial

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ix) Clearance between king pin and bush, (mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x) Clearance between center pin and bush, (mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi) Clearance between valve guide and stem (mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xii) Spring index of valve springs N/mm/(kgf/mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of Manufacturer/ Applicant | Document No, if any and its Revision status | Name of Testing Agency: CFMT&TI, BUDNI (M.P.)
---|---|---|
Signature : | Make and Model of Tractor: |
Name : | Signature : |
Designation : | Name : J.J.R. NARWARE |
Date : | Designation : S.T.E. |
| xiii) | Backlash of timing gears (mm) |
| xiv) | Overall thickness of clutch plate (mm) |
|      | - Transmission clutch |
|      | - PTO shaft |
| xv)  | Height of lining over rivet head of clutch lining (mm) |
|      | - Transmission clutch |
|      | - PTO shaft |
| xvi) | Thickness of brake lining (mm) |
|      | Height of lining over rivet head of brake lining (mm) |
|      | Depth of oil groove of brake disc in case of oil immerse brake |

### 4.10.2 Backlash of transmission gears (mm):

- Transmission gears
- Crown wheel and pinion
- Final drive gear
- Safety features, if any

### 4.11 Optional requirements:

| i)  | Seating requirements | Should meet the requirements of IS: 12343-1998 | Conforms/Does not conform |
| ii) | Fitment of ROPS | With a provision for fitment of ROPS. If ROPS fitted it should meet the requirement of IS: 11821-1992 | Provided/ not provided |
| iii) | Technical requirements for PTO shaft | Should meet the requirements of IS: 4931 -1995 | Conforms/Does not conform |
| iv) | Dimensions of three point linkage | Should meet the requirements of IS: 4468 (Part-I)-1997 | Conforms/Does not conform |
| viii) | Accessories | Trailer hitch, front tow hook, linkage drawbar may be provided. | Provided/ not provided |

I,.................................................................................................................of M/s ........................................................................................................ hereby declare that information given above in page no. 1 to 19 is as per design / drawings of the prototype/commercial model of tractor submitted for Confidential/Commercial test and is correct to the best of my knowledge and belief.

Applicant / Manufacturer :
Signature of Authorised Signatory :
Name :
Designation :

Place: 
Date:

**PRE-TEST CONDITION CERTIFICATE**

**FOR COMMERCIAL TEST (I.C.T./VARIANT/SUPPLIMENTARY)**

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<td>Designation</td>
<td>Date</td>
<td>Designation : S.T.E.</td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td>Date :</td>
</tr>
</tbody>
</table>
Make of tractor : 
Model of tractor : 
Nature of test : 

(a) The selection procedure followed for submitting the tractor meets the requirement of clause 4.3 of Indian Standard 5994-1998.

(b) It is certify that the specification of machine submitted for test conforms to the production model, which we propose to introduce.

(c) It is also understood that the test will be carried out on the machine as it stands together with accessories and attachments essential to the satisfactory performance of the machine. We will not be allowed to introduce alternations or modifications on the machine which should affect its normal performance during the progress of tests. If any major modifications or alterations are considered necessary, we shall withdraw the machine from tests and submit another machine of same make and model with fresh application for testing.

I/We do hereby abide by the above preconditions referred to at (a), (b) & (c) above in respect of the test sample submitted for Test at this Institute and in case of any violation we shall withdraw the tractor from test.

Signature of Applicant/Authorized signatory :
Name & Designation :
Address: 
Telephone No. :
Fax No. :
Date :

<table>
<thead>
<tr>
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