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| दिनांक एवं हस्ताक्षर SIGN & DATE |  | उत्पाद मानक PRODUCT STANDARD ELECTRICAL MACHINES ENGINEERING | TG60619 पृष्ठ 6 का 1 Page 1 of 6 |
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| सामग्री सूची संख्या INVENTORY NO. | <p><u>SELF-PROPELLED ELEVATING FLAT BED TRAILER</u></p> <p>1.0 <u>SCOPE:</u></p> <p>The scope of this specification is as below:</p> <p>1.1 Engineering, design and supply of a Self-propelled elevating flat bed trailer along with its own Powerpack.</p> <p>1.2 Supply of all standard spares & tool kit (to be listed in the offer) as an integral part of self-propelled elevating flat bed trailer supply.</p> <p>1.3 Providing 10 copies of the O&M manuals.</p> <p>1.4 Acceptance testing of the equipment.</p> <p>2.0 <u>APPLICATION STANDARD:</u></p> <p>There is no national standard pertaining to this item.</p> <p>3.0 <u>DESIGNATION:</u></p> <p>A Self-propelled elevating flat bed trailer shall be designated as below:</p> <p>3.1 <u>On Drawings:</u></p> <p>Material specification column : TG 60619</p> <p>Description column : Self-propelled elevating flat bed trailer</p> <p>3.2 <u>On Indent:</u></p> <p>Self-propelled elevating flat bed trailer as per product standard no. TG60619</p> <p>3.3 <u>On Enquiries & Purchase Order:</u></p> <p>In addition to incorporating the above information, a copy of this specification shall be enclosed.</p> |
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इस प्रलेख में दी गई सूचना
आपका रूप से किसी भी रूप में
प्रयोग, जो कि कंपनी के हित में
सैनिकारक हो न किया जाए।

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| EMT | | | | | |
| TSX | | | अनुवादक TRANSLATED BY | | |
| PSC Member | | | निर्माणकर्ता WORKED BY | AK Malhotra | |
| QAX | | | जांचकर्ता CHECKED BY | AK Malhotra | |
| सहमत विभाग AGREED DEPTT. | नाम NAME | दिनांक एवं हस्ताक्षर DATE & SIGNATURE | पर्यवेक्षणकर्ता SUPERVISED BY | KR Gupta | |

सामग्री सूची संख्या
INVENTORY NO.

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| | | | स्वीकृति : APPROVED : DEVRAJ (AGM/TGE) | | |
| REV. NO. 00 | | | निर्माण PREPARED | जारी ISSUED | दिनांक : DATE |
| DATED | | | EME, HEEP, HWR | EME, HEEP, HWR | |



सामग्री सूची संख्या
को अधिकारित करता है। INVENTORY NO. SUPERSEDES

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स्वत्वाधिकार एवं गोपनीय

इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रत्यक्ष एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए ।

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सामग्री सूची संख्या
INVENTORY NO.

4.0 FUNCTIONAL DESCRIPTION:

The self-propelled elevating flat bed trailer shall be used in the assembly area of large size Turbogenerators. It shall mainly be used for the following operations:

- To carry the rotors of Turbogenerators within the assembly area. (Maximum dia 1250 mm with barrel length of about 8000 mm and total length - including shaft ends - of about 15000 mm).
- For insertion of rotor into the stator during the assembly of generator
- For removal of rotor from the stator during dis-assembly of generator

For this, an erection base of suitable height (not in supplier's scope) shall be fixed on the self-propelled module platform.

5.0 TECHNICAL REQUIREMENTS:

The self-propelled elevating flat bed trailer comprises of the following minimum requirements:

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| 1. | Payload capacity (T) | 125 |
| 2. | Loading platform length (mm) | 15000 |
| 3. | Loading platform width (mm) | 3000 |
| 4. | Loading platform height in lowered condition (mm) | 1150 |
| 5. | Loading platform height in running condition (mm) | 1500 |
| 6. | Loading platform height in elevated condition (mm) | 1850 |
| 7. | Suspension stroke (mm) | 700 |
| 8. | Diesel engine of suitable rating | 1 no. |
| 9. | Maximum surmountable slope at full load | 5 % (app) |
| 10. | Maximum speed on even ground (empty) (km/h) | 12 -14 (app) |
| 11. | Maximum speed on even ground (full load) (km/h) | 4 - 5 (app) |

6.0 BASIC CONFIGURATION:

1. **Frame:**

- Consisting of longitudinal carrying beams with high yielding point, made of steel, suitably crossed by transverse beams.
- The loading platform to be partially covered by panels in checkered plates. It should be possible to remove these panels easily for maintenance purposes.

2. Console for drive and control onboard the vehicle:

The vehicle should be provided with all the devices for steering, lifting, braking and lighting operations.

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हस्ताक्षर एवं दिनांक

| सामग्री सूची संख्या | INVENTORY NO. |
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सामग्री सूची संख्या **SUPERSEDES**
को अधिकारित करता है। **INVENTORY NO.**

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3. Suspensions and axles:

- Compass suspensions with 700 mm stroke.

4. **Drive system:**

- Hydrostatic system
- Systems to prevent the diesel engine and drive components from overloading.

5. **Lifting system:**

- A suitable lifting system for equal and proper lifting of the platform, irrespective of the loading.
- The lifting system shall be provided with an overload protection.
- The lifting and lowering speed should be adjustable.

6. **Brake system:**

- The vehicle module shall be provided with a suitable hydraulic / compressed air brake system, acting on the brake drum of the brake wheels. Suitable safety features shall be incorporated.

7. **Electric and electronic system:**

- Direct current from 24 V battery, recharged by diesel engine
- Lighting system consisting of headlights, direction indicators at all corners of frame, hazard-warning lights, warning beacons and working lights along with a suitable horn.

8. Electronic multi-mode steering systems:

Electronic controls with a central computer in the main box and peripheral elements on each suspension to be provided. Hydraulic mechanical auxiliary control on each suspension to be provided. The following steering modes are desired:

- Frontal drives at correct turning radius (Ackermann type) between 0° and 73° .
- Circular drive (carousel)
- Parallel lateral drive at 90° .
- Parallel diagonal drive (crabbing) variable up to 90° .
- Lateral drive at correct turning radius from 0° to 100° .

The steering control takes place by means of the remote control as well as from the control panel.

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| <div>समग्री सूची संख्या</div> <div>INVENTORY NO.</div> | <div>समग्री सूची संख्या</div> <div>INVENTORY NO.</div> | <div>9. <u>Console for remote drive and control:</u></div> <div>The remote control, cable or radio connected to the vehicle shall permit the operation of all the transported functions. The main functions are:</div> <div> <ul style="list-style-type: none"> - LH and RH steering - Set-up of all the different steering modes - Brake operation - Forward / reverse gear - Accelerator (regulator of speed) - Lifting and lowering system - Ignition on / off - Emergency stop </div> <div>10. <u>Standard set of tools:</u></div> <div>One standard set of tools for maintenance shall be delivered with the vehicle. The complete list shall be included in the offer</div> | <div>समग्री सूची संख्या</div> <div>INVENTORY NO.</div> |
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| <div>समग्री सूची संख्या</div> <div>INVENTORY NO.</div> | <div>समग्री सूची संख्या</div> <div>INVENTORY NO.</div> | <div>REV. 00</div> | <div>निर्माणकर्ता</div> <div>Worked by</div> <div>AKM</div> <div>जांचकर्ता</div> <div>Checked by</div> <div>AKM</div> |



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This period of deputation shall be further used for training of BHEL personnel.

11.0 MANUALS:

The following manuals, in English language, shall be delivered along with the vehicle:

- Operation manual
- Maintenance manual
- Spare parts catalogue.

12.0 INFORMATION REQUIRED ALONGWITH OFFER:

The following information should be supplied invariably alongwith the quotations:

- i) Assembly drawing of the vehicle showing all items, overall and fixing dimensions, component list, material specification of important components, weights etc along with bill of material.
- ii) Supplier's Quality Assurance Plan, indicating the tests / checks carried out at their works alongwith acceptance norms during manufacturing and final inspection.
- iii) List of recommended spares required for smooth running of the equipment for a period of five years.
- iv) Catalogue of the equipment offered.

13.0 **GUARANTEE:**

The equipment shall be guaranteed for a period of 24 months from the date of dispatch or 18 months from the date of commissioning, whichever is earlier for its trouble free operation.

The supplier shall be responsible for any rectification / replacement of damaged components during transit / storage / commissioning of the equipment.

13.0 CROSS REFERRED STANDARDS:

- NIL -

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