

EXPRESSION OF INTEREST (EOI)

Office of the Bhagalpur Municipal Corporation,
Government of Bihar.

EOI Reference No: 01/I.T CELL/2026-27

Date: 01/06/2026

Short Term Notice Inviting Expression of Interest (EOI) for Unit Rate of SWM Vehicles.

The Bhagalpur Municipal Corporation (BMC) invites Expression of Interest (EOI) from reputed Manufacturers / Authorized Dealers / Suppliers for the determination of per-unit rates for the supply of Refuse Compactor, Auto Tipper, and E-Rickshaw for Solid Waste Management (SWM) activities.

1. Submission Process & Timeline

Interested bidders must submit their Technical and Financial proposals in two separate sealed envelopes, enclosed within a main single envelope, superscribed with "EOI for SWM Vehicles Rate Discovery".

- **Last Date of Submission:** Till 15th June, 2026, Time : 03:00 PM
- **Place of Submission:** Office of Bhagalpur Municipal Corporation, Swami Vivekanand Path, Near Ghuran Peer Baba Chowk, Bhagalpur.
- **Date of Opening of Technical and Financial Proposals:** 15th June, 2026, Time : 03:30 PM

2. Scope of Supply & Specifications

The bidders are required to submit their financial quotes **per piece (Unit Rate)** including all taxes, transportation, and registration charges as per the following specifications:

Sl. No.	Vehicle / Equipment Type	Minimum Specifications	Unit	Price Per Unit (INR)
1)	Refuse Compactor	Attached as annexure-1	1 Pcs	[To be filled by Bidder]
2)	Hopper Tipper	Attached as annexure-2	1 Pcs	[To be filled by Bidder]
3)	E-Rickshaw Tipper	Attached as annexure-3	1 Pcs	[To be filled by Bidder]

4)	Generator 63 KVA	Attached as annexure-4	1 Pcs	[To be filled by Bidder]
5)	Loader Backhoe	Attached as annexure-5	1 Pcs	[To be filled by Bidder]
6)	Tractor (small)	Attached as annexure-6	1 Pcs	[To be filled by Bidder]
7)	Tractor (Big)	Attached as annexure-7	1 Pcs	[To be filled by Bidder]
8)	Tractor Trolley (Big)	Attached as annexure-8	1 Pcs	[To be filled by Bidder]
9)	Tractor Trolley (small)	Attached as annexure-9	1 Pcs	[To be filled by Bidder]
10)	Mobile Toilet	Attached as annexure-10	1 Pcs	[To be filled by Bidder]
11)	Generator 1500 kVA	Attached as annexure-11	1 Pcs	[To be filled by Bidder]

Detailed specifications can be downloaded from the <https://bhagalpurnagarnigam.in/>

3. Eligibility Criteria:-

- **GST & PAN:** Bidder must submit valid GSTIN registration and PAN Card are mandatory.
- **Income Tax Return :** Bidder must submit valid any one of Last three financial year Income Tax Return(i.e F.Y 2022-23, 2023-24, 2024-25)

4. Terms & Conditions-

Important Note on Procurement: This EOI is solely for the purpose of discovering rates. A separate bid will be floated on the GeM portal/E-Procure tendering based on the lowest rate.

- **Rate Validity:** The rates quoted by the bidder must remain valid for at least 1 Year from the date of opening of the financial evaluation.



- **Taxes and Duties:** The per-piece rate must be inclusive of GST, Freight/Transportation, Road Tax, Insurance, and Temporary/Permanent Registration in Bihar. No extra cost will be entertained later.
- **Warranty:** Minimum 1-year comprehensive warranty from the date of delivery for the chassis and equipment, and specific manufacturer warranty for E-Rickshaw batteries.
- **Jurisdiction:** All disputes arising out of this EOI shall be subject to the exclusive jurisdiction of courts in [Insert District Name, e.g., Patna], Bihar.
- *The authority reserves the right to accept or reject any or all EOIs without assigning any reason thereof.*
- All details and information can be seen at website www.prd.bihar.gov.in & www.bhagalpurnagarnigam.in.

Municipal Commissioner,
Bhagalpur Municipal Corporation


01/06/20



Technical Specification of Vehicle Mounted Refuse Compactor (14 CuM).

Generic Parameters

Main Body Container Capacity (m ³)	14 cubic meter
Container Construction Material	Mild Steel as per IS 2062
Main Container Body: Floor Panel Thickness (mm)	4 millimeter
Main Container Body: Side Panel thickness (mm)	4 millimeter
Main Container Body: Roof Panel Thickness (mm)	4 millimeter
Tailgate Hopper Capacity (m ³)	1.75
Type of Compaction	Hydraulic Compaction
Compaction Ratio	2:1
Compaction Pressure (psi)	2500 (minimum)
Bin lifter	Universal Bin Lifter
Capable of unloading garbage from bins of capacity (ltrs)	1100 liter
Waste Unloading Mechanism	Hydraulic Ejection
Lift time (second)	60 second
Discharge time (second)	90 second
Power Source	PTO
Sewage Tank Capacity	80 liter (minimum)
Tailgate Hopper Material	Mild Steel as per IS 2062

Tailgate Hopper: Bottom Thickness (mm)	4 millimeter
Tailgate Hopper: Side Thickness (mm)	3 millimeter
Vehicle Category	N3 (GVW >12 tonnes)
Chassis Maximum Gross Vehicle Weight (Kerb weight + Payload)	16140 kilogram (minimum)
Chassis Load Carrying Capacity (Kg) (Fabricated Body + Weight of Materials to be Carried)	10940 kilogram (minimum)
Chassis Make	Standard Make
Chassis Model Number	Compatible with Technical Specification
Type of Fuel	Diesel
Axle Configuration	4 X 2
Maximum Engine Output / Power (kW) at rated RPM	117.7 kiloWatt
Vehicle Emission Compliance	BS VI
Vehicle Air Intake System	Turbocharged Intercooled
Vehicle Transmission System	Manual
Overall Length of Vehicle	8400 millimeter
Overall Width of Vehicle	2400 millimeter
Overall Height of Vehicle (Unladen)	3400 millimeter
Minimum Ground Clearance	225 millimeter
Wheel Base	3900 millimeter
Turning Radius (mm)	8150 millimeter

Maximum Gradeability in 1st gear (Degree)	12.96 degree
Type of Steering	Power Steering
Front Brakes	Drum Brake
Rear Brakes	Drum Brake
Type of Brake Mechanism	Air/Pneumatic
Tyre Size Designation including ply rating	9.00R20 - 16PR
Air Conditioning in Driver Cabin	No
Certification Type	Chassis Certification along with Form 22
Certifying Agency for Chassis	ARAI (Automatic Research Association of India, Auth. Agency for Testing Certificate.)
Availability of Chassis / Original Vehicle Manufacturer's authorization in case of Body Builders	Yes
Chassis Warranty (Years)	1 year
No of Free Services	5



1
2

TECHNICAL SPECIFICATION OF GARBAGE HOPPER TIPPER.

Sr.No	Component	Specification
Base Vehicle Parameters		
1.	Vehicle Category	N1 (GVW ≤3.5 tonnes)
2.	Chassis Load Carrying Capacity (Kg) (Fabricated Body + Weight of Materials to be Carried)	1500 - 1600
3.	Type of Fuel	Diesel
4.	Axle Configuration	4 X 2
5.	Maximum Engine Output / Power (kW) at rated RPM	50 - 60
6.	Vehicle Emission Compliance	BS VI
7.	Vehicle Air Intake System	Turbocharged
8.	Vehicle Transmission System	Manual
9.	Overall Length of Vehicle	3800 - 4800
10.	Overall Width of Vehicle	1650 - 1750
11.	Overall Height of Vehicle (Unladen)	1900 - 2050
12.	Minimum Ground Clearance	175 - 220
13.	Wheel Base	2450 - 2550
14.	Turning Radius (mm)	5100 - 5550
15.	Maximum Gradeability in 1st gear (Degree)	17 - 25
16.	Type of Steering	Power Steering
17.	Front Brakes	Disc Brake
18.	Rear Brakes	Drum Brake
19.	Type of Brake Mechanism	Hydraulic or Robust
20.	Type of Tyres (ISI Marked)	Tubeless
21.	Tyre Size Designation including ply rating	18 5R 14LT 8PR or 19 5R 15 LT
22.	Air Conditioning in Driver Cabin	No
23.	Seating Capacity in the cabin (Including driver)	2
24.	Certification Type	Chassis Certification along with Form 22
25.	Certifying Agency for Chassis	ARAI or AIS096
26.	Availability of Chassis / Original Vehicle Manufacturer's authorization in case of Body Builders	Yes
27.	Chassis Warranty (Years)	1 or more
Tipper Parameters		
28.	Type of Tipper	Box Body Tipper
29.	Hydraulic System Driven by	Power Pack Unit or PTO
30.	Tipping Angle (Degree)	40 - 45
31.	Tipper Container Capacity/Volume (cubic metres)	3.3
32.	Body Plate Thickness (mm)	1.6 - 2
33.	Tipper Sub Frame Thickness (mm)	3
34.	Tipper Container Material	Mild Steel as per IS 2062



19)	Battery Charger	220/230 V Nominal Input Voltage, High Efficiency Type
20)	Charging Current (Ampere)	15
21)	Type of Motor	Brushless DC Motor
22)	Motor Output Power 48V at Full Load (watt)	1200 -1500 W
23)	Motor brand	Cy gold
24)	controller brand	Cy gold
25)	Differential size	33 inches
26)	Hydraulic system	Automatic Hydraulic system
27)	Type of Bin Cart	Twin Bin (Dry and Wet)
28)	Material of the roof of e-cart garbage loader, please specify the material otherwise put N/A	MS
29)	Garbage Outer Bin size in mm	1200-1300*1000-1050*950- 1000
30)	Length of E-CART GARBAGE LOADER as per Gazette Notification by Ministry of Road and Transport	2.8 Millimeter
32)	Width of E-CART GARBAGE LOADER as per Gazette Notification by Ministry of Road and Transport	950-1000 Millimeter
33)	Height of E-CART GARBAGE LOADER as per Gazette Notification by Ministry of Road and Transport	1750-1800 Millimeter
34)	Size of Front Tyre (mm)	3.75-12 Millimeter
35)	Size of Rear Tyre (mm)	3.75-12 Millimeter
36)	TYRE MAKER	CEAT/JK/MRF
37)	Brake Type (Rear)	Drum
38)	Brake Type (Front)	Drum
39)	Suspension System (Rear)	Leaf Spring
40)	Suspension System (Front)	Shockers
41)	Glass Windshield with wiper motor as approved by ICAT/ARAI	Yes
42)	Equipped with Start and Stop Button, Parking Lights, Back lights with Reverse Gear Facility	Yes
44)	Equipped with Fire Extinguisher	Yes
45)	Reverse Gear Facility	Yes



46)	Yellow Color reflective tape on Front and Rear Side of the Vehicle	Yes
47)	Instrument Panel Containing Speedometer and Battery Charging Indicator	Yes
48)	Compliance of Centre of Gravity of Vehicle as a Compulsory Norms for Safety	Yes
49)	Confirming to Applicable Environmental Test	Yes
50)	Noise level must be Low during Operation	Yes
51)	No. Of Free Service	3
52)	Driver seating capacity	1
53)	Battery Warranty	3 years





63 kVA Diesel Generator Set Comprehensive Technical Specification

This document covers the detailed technical specification for supply, installation, testing and commissioning (SITC) of a 63 kVA silent type Diesel Generator (DG) Set complete with all standard accessories, acoustic enclosure, AMF panel, earthing, exhaust system, fuel system, foundation and associated electrical works.

1. Scope of Work

Supply, installation, testing and commissioning of 63 kVA silent type DG Set including engine, alternator, acoustic canopy, AMF panel, exhaust piping, fuel tank, battery system, earthing, cabling and all accessories required for satisfactory operation.

2. General Technical Parameters

Rated Capacity: 63 kVA / 50 kW
Voltage: 415 Volts $\pm 10\%$
Frequency: 50 Hz
Phase: 3 Phase, 4 Wire
Speed: 1500 RPM
Power Factor: 0.8 Lagging
Cooling: Water Cooled
Starting System: 24V DC Electric Start
Duty Condition: Prime Duty
Noise Level: Maximum 75 dBA at 1 meter
Emission Compliance: CPCB-IV+ / Latest Norms

3. Preferred Makes

Engine: Cummins / Kirloskar / Perkins / Mahindra Powerol / Ashok Leyland
Alternator: Stamford / Leroy Somer / Kirloskar / Crompton Greaves
Panel Components: Schneider / Siemens / ABB / L&T;

4. Engine Specification

The diesel engine shall be 4-stroke, compression ignition type suitable for continuous operation. It shall include radiator cooling, electronic governing, direct fuel injection and safety shutdown protections for low oil pressure, high temperature and overspeed.

5. Alternator Specification

Brushless alternator with Class-H insulation, IP23 protection, copper winding, self-excitation and AVR based voltage regulation with $\pm 1\%$ regulation accuracy.

6. Acoustic Enclosure

Factory built weatherproof acoustic enclosure made from CRCA steel sheet with powder coating. Enclosure shall include soundproof insulation, lockable access doors, emergency stop push button, ventilation arrangement and weather protection.





7. AMF Control Panel

Microprocessor-based AMF panel with auto/manual operation, LCD display, event logging, automatic mains failure detection, protection relays, battery charger and emergency stop facility.

8. Protection Features

Over Voltage, Under Voltage, Over Current, Earth Fault, Short Circuit, Frequency Protection, Reverse Power, Phase Failure and Single Phasing protections.

9. Fuel System

Integrated fuel tank with minimum 100-liter capacity suitable for at least 8 hours operation at 75% loading. Fuel gauge, drain valve and flexible fuel piping shall be provided.

10. Battery & Starting System

24V DC maintenance-free lead acid battery with heavy-duty battery charger. Battery shall support minimum three cranking attempts.

11. Exhaust System

Residential silencer, flexible bellows, insulated MS exhaust piping, rain cap and supporting structure shall be provided.

12. Earthing System

Complete earthing system as per IS 3043 shall be provided.

Body Earthing: 2 Nos

Neutral Earthing: 1 No

Panel Earthing: 1 No

Earth resistance shall be maintained below 1 Ohm.

13. Cabling Work

Supply and laying of suitable size armored power cable and copper control cable including glands, lugs, ferruling and termination.

14. Foundation Work

RCC foundation with anti-vibration pads, PCC base, grouting and foundation bolts suitable for DG loading and vibration control.

15. Standards

DG Set shall comply with IS 4722, IS 13364, IS 3043, IEC standards, CPCB norms and applicable ISO standards.

16. Testing & Commissioning





Insulation test, load test, AMF functional test, voltage and frequency test, safety shutdown verification and earthing resistance test shall be conducted.

17. Documentation

Vendor shall submit OEM certificates, warranty certificates, operation manuals, wiring diagrams, GA drawings and test reports.

18. Warranty

Minimum warranty shall be 12 months from commissioning or 18 months from supply, whichever is earlier.

19. Optional Features

Remote monitoring system, GSM alerts, synchronization facility, DG health monitoring system and fuel monitoring system.

20. Vendor Scope

Transportation, unloading, positioning, installation, cabling, earthing, testing, commissioning and operator training shall be in vendor scope.

Technical Data Summary

Parameter	Specification
DG Rating	63 kVA
Engine Speed	1500 RPM
Voltage	415 V
Frequency	50 Hz
Phase	3 Phase
Cooling	Water Cooled
Fuel	High Speed Diesel
Noise Level	75 dBA
Protection	IP23

Prepared for technical reference and tendering purposes for Government / Smart City / Municipal / Industrial applications.





Annexure - 05

TECHNICAL SPECIFICATION OF BACKHOE LOADER WITH ROAD BREAKER.

Sr.No	Component	Specification
Backhoe Loader		
1.	Max Engine Power at Rated RPM (kW)	54 - 65
2.	Max Torque at Rated RPM (Nm)	300 - 450
3.	Vehicle Emission Compliance	Stage - V
4.	Fuel Type	Diesel
5.	Type of Wheel Drive	Four Wheel Drive
6.	Operating Weight / Unladen Weight (weight in travel mode with 90% fuel, accessories and tools) (Kg)	7200 - 8300
7.	Type of Tyre	16.9X28 - 12 PR (Industrial)
8.	Minimum Turning Radius (mm) with brakes	3500 - 4900
9.	Minimum Turning Radius (mm) without brakes	4150 - 5600
10.	Cold Start Kit	No
11.	Cabin	Non - AC
12.	Type of Loader Bucket	Standard
13.	Loader Bucket Capacity (Cubic Meter)	1.0 - 1.1
14.	Loader Bucket Dump height (Meter)	2.40 - 3.50
15.	Loader Bucket Payload (kg)	1650 - 2000
16.	Backhoe Bucket Capacity (Cubic Meter)	0.24 - 0.30
17.	Backhoe Bucket Digging Depth (Meter)	4.20 - 5.05
18.	Backhoe Bucket Reach from swing Pivot (Meter)	5.44 - 5.75
19.	Backhoe Bucket Cutting Height / Working Height (Meter)	5.40 - 6.50
20.	Certification Type	Complete Vehicle Certification
21.	Certifying Agency	ICAT or ARAI
22.	Compliance to AIS 160 for Earth-Moving Machinery— Safety Requirements for Backhoe Loaders	Yes
23.	Standard Warranty (Minimum)	12 Months or 2000 Hours
Rock Breaker		
24.	Working weight (including tool pin)	300 - 450 kg
25.	Overall Length	1600 - 1650 MM
26.	Rated Impact Energy	700 - 1000 Joules
27.	Impact rate (frequency)	350 - 900 Blows per minute.
28.	Operating Pressure	100 to 170 bars
29.	Carrier Pressure Relief Minimum	Measured Operating Pr. +60 bars
30.	Carrier Pressure Maximum	170 - 175 bars
31.	Maximum return-line pressure	10 bars
32.	Oil Supply-/flow	40 to 80 Liter per minutes
33.	Noise	100 - 110 dbA
34.	Pressure line size	3/4 inch BSP (male)
35.	Return line size	3/4 inch BSP (male)
36.	Carrier Weight range	6 to 12 tons
37.	Coupling	Quick Release
38.	Dampening	Vibration Dampening



Technical Specification of Small Tractor with Trailor/Trolley.

Details	Specification
Vehicle Emission Compliance	Bharat Stage TREM IIIA
Max Engine Power (HP)	22.7
Power Take-Off (PTO) Type	Live
Maximum PTO Power (HP)	19
Operator Station	Open station
Engine Aspiration System	Natural
Engine Cooling	Water cooled
Fuel Injection	Inline
Tractor Transmission System	Partial Constant Mesh
Type of Wheel drive	Two Wheel Drive
Drive Axle	Rear
Type of Steering	Manual
Tractor Brake	Oil Immersed Disc Brake
Clutch Operation	Single
Warranty Time (Month)	36 month
Certification	Vehicle Certification Number as issued by CFMTTI (Budni) / ARAI / ICAT / CIRT / GARC / VRDE / NRFMTTI (Hisar)

Generic Parameters

Tractor Model Number	As per OEM
Tractor Engine Capacity (cc)	1290
Type of Fuel	Diesel
Vehicle Emission Compliance	Bharat Stage TREM IIIA
Colour of the Tractor	Red/Blue
Max Engine Power (HP)	22.7
Engine RPM at Max Power	2200
Maximum Engine Torque (Nm)	85
Engine RPM at Max Torque (@rpm)	2200
Power Take-Off (PTO) Type	Live



Maximum PTO Power (HP)	19
RPM at Maximum PTO Power	2200
Operator Station	Open station
Engine Aspiration System	Natural
Engine Cooling	Watercooled
Fuel Injection	Inline
Fuel Tank Capacity (Ltrs)	28 liter
Length of Tractor Body (mm)	2770 millimeter
Width of Tractor Body (mm)	1085 millimeter
Ground Clearance (mm)	320 millimeter
Wheel Base (mm)	1580 millimeter
Size Of Front Tyre with ply rating (mm)	5.25-14
Size Of Rear Tyre with ply rating (mm)	8.3-24
Track Width Front (mm)	870 millimeter
Track Width Rear (mm)	860 millimeter
Tractor Transmission System	Partial Constant Mesh
Number of Forward Gears/Setting	8
Type of Wheel drive	Two Wheel Drive
Drive Axle	Rear
Type of Steering	Manual
Tractor Brake	Oil Immersed Disc Brake
Type of Clutch	Dry Clutch



Clutch Operation	Single
Lifting Capacity at Hitch Point (Kg)	750 kilogram
Turning Radius (mm)	2625 millimeter





Annex - 07

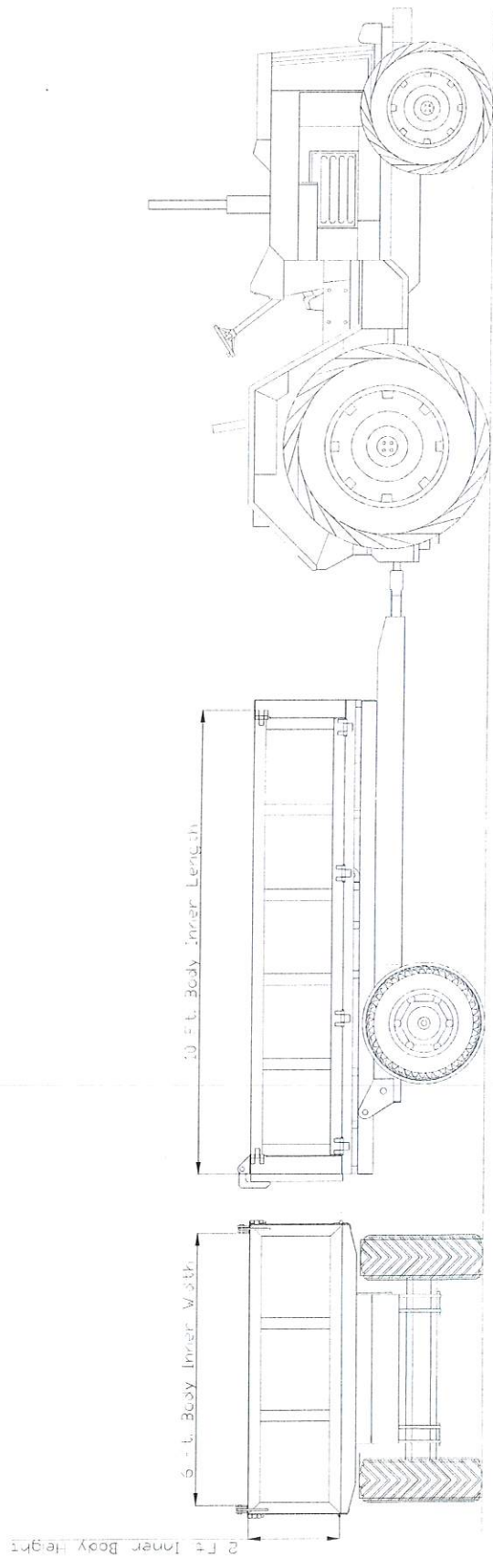
Technical Specification of Tractor Engine 42 HP

ITEMS	SPECIFICATION MANDATORY RANGE
Engine Capacity (cc)	Maximum 2500 CC
Engine HP	Minimum 42 HP
PTO HP	Minimum 37 HP
Power Take-Off (PTO) Type	Live
Engine Aspiration System	Natural
Fuel Injection	Inline
Engine Torque	Minimum 150 NM
Fuel Tank Capacity (Ltrs)	Minimum 45 Ltrs
Length of Body (mm)	Maximum 3550 MM
Width of Body (mm)	Maximum 1700 MM
Ground Clearance (mm)	Minimum 340 MM
Transmission System	Sliding Mesh
Type of Brake	Dry Disc Brake
Clutch Operation	Dual
Lifting Capacity at Hitch Point (Kg)	Minimum 1400 KG
Turning Radius (mm)	Maximum 3100 MM





Ann-08



Technical Specification For Tractor Trolley (Tipping Type)

Cubic Capacity:- 120 Cubic Feet (CFT)
 Body Inner Dimension:- Floor Length-10 Ft,
 Width- 6 Ft.
 Height- 2 Ft.

Hydraulic Cylinder : Liftwell Brand or its Equivalent to be Fit.

Application:- It is used for Munciple/ Nagar Nigam Application etc.

All Steel Sheet, plates & Tubes materials spec. - ST 52. Gr.

All welding - by MIG welding.

After Fabrication Body to be Short blasting then Two coat primer & Two coat Paint.

- Body made from :
- Floor Plate 3 mm thickness., Side wall 2.5 mm Thick., Head board & Tail Door 2.5 mm Thickness.
 - All Floor Cross member made from 4/3 mm thickness.
 - All side wall stiffeners made from 3 mm thickness sheet.
 - Chassis Frame Made From ISMC 150 MM (SAIL -Brand).
 - Runner made from ISMC Channel or Bending C - Section.



Technical Specification for 2 Ton Semi-Trailer (Single Axle)

Parameter	Specification
Type	Semi-Trailer (Single Axle)
Platform Type	Tipping Platform
Sideboards	Fixed
Capacity	2 tones ($\pm 5\%$)
Axle Wheel Track	1500 mm
Number of Wheels	2
Overall Width	1.25 meters
Overall Length	3.5 meters
Overall Height (Unlade)	1.2 meters
Platform Height (Unlade)	1.3 meters
Ground Clearance	300 mm
Platform Floor Thickness	3-4 mm
Sideboard Thickness	2-3 mm
Chassis Frame Thickness	5-6 mm
Lashing Hooks	1
Color	Red/Blue (matching with tractor)
Warranty	12 months



Overall Width including pathway (mm)	2700mm for 4/6/8 and10-seater
Total height	3200mm
Door locking bolts	Size 100 mm SS 304
Tower bolt locking	Tower bolt of SS 304 size 75mm
Wash basin material	Made of SS 304 (size:300X400mm) with waste coupling and Drain outlet line
WC material	Made of SS 304
Towel rail/ring	Made of SS
Cloth hook	Made of SS 304
P-trap material	Made of PVC (75mm)
Footrest (WC) material	Made of SS 304 integrated with Indian WC and floor
Sewage tank material	Made of FRP 8mm
Mirror size	455mm X 305mm
Water supply connection	UPVC pipe connection with all toilet inter connecting
Soap stand	SS 304 made Size:125 X 75mm
Tap material	Chromeplated
Base floor surface	To be suitably slanted towards WC for proper drainage (for IndianWC)
Trailer Movement facility	Two axle of 57 X 57 mm with hub of 5 bolt with bearing size 32213 with 4 tyres of size 6.5 X 16
Provision for vent pipe	From sludge/Septic tank
Water mug (standard size)	SS 304 With Chain
Electric point	8 No. electric point to be provided in all toilet 2 watt LED with 1 MCB of 12 amp with MCB box
Stand provision to keep mobile toilet in static position	To keep safe Tyre, Tube, rim and their maintenance
Warranty period in number of years	1



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COMPREHENSIVE TECHNICAL SPECIFICATION FOR 1500 kVA DG SET WITH EARTHING SYSTEM

Supply, installation, testing and commissioning of 1500 kVA Prime Rated Diesel Generator Set complete with diesel engine, alternator, AMF/synchronization panel, acoustic enclosure, fuel system, exhaust system, batteries, earthing system and all associated accessories suitable for continuous operation.

1. DG Rating

Parameter	Specification
DG Capacity	1500 kVA Prime
Voltage	415 V
Frequency	50 Hz
Power Factor	0.8 lagging
Speed	1500 RPM

2. Diesel Engine

Parameter	Specification
Type	Turbocharged & aftercooled diesel engine
Cooling	Water cooled
Starting	24V DC electric start
Fuel Consumption	Approx. 280–320 LPH

3. Alternator

Parameter	Specification
Type	Brushless synchronous alternator
Insulation	Class H
Protection	IP23
Voltage Regulation	±1%

4. Acoustic Enclosure

Parameter	Specification
Compliance	CPCB IV+
Noise Level	75 dBA at 1 meter
Construction	CRCA powder coated enclosure

5. Control Panel





Parameter	Specification
Panel Type	AMF / Synchronization
Breaker	Motorized ACB
Metering	V, A, Hz, PF, kW, kVA, kWh
Communication	Modbus / Ethernet

6. Earthing System

Parameter	Specification
Type of Earthing	Maintenance free chemical earthing
DG Body Earthing	02 Nos.
Neutral Earthing	02 Nos.
Earthing Electrode	Copper bonded/GI electrode
Earth Pit Size	As per IS 3043
Earth Resistance	Less than 1 Ohm
Earth Conductor	GI/Copper strip suitable size
Connection	Properly bolted with anti-corrosion treatment
Inspection Chamber	RCC chamber with CI cover
Backfill Compound	Maintenance free conductive compound

7. Exhaust System

Parameter	Specification
Silencer	Residential grade
Exhaust Pipe	Insulated heavy duty MS pipe
Insulation	Rockwool with aluminum cladding

8. Safety Protection

Protection	Availability
Emergency Stop	Yes
Low Oil Pressure Shutdown	Yes
High Temperature Shutdown	Yes
Overspeed Shutdown	Yes
Earth Fault Protection	Yes
Short Circuit Protection	Yes

9. Approved Makes

Component	Approved Makes





Annexure - 10

6 SEATER MOBILE TOILETS (TECHNICAL)	
Specification Name	Values
Number of Compartments	6 Nos.
Type of WC	Indian style with steel base (ss-304)
Number of WC	6 Nos.
Water facility	By mean of over head tank(Capacity1000Ltrs) Make- SINTEX/VECTUS/ASHIRVAD
Wash basin	2Nos.outside the Unit with common facility
Sewage facility	BIO-DIGESTER (capacity-1000ltrs)
ventilation	Full size cross ventilation
Top (roof) shape	Slanting/tapper
Projection of Roof	100 mm projection from front and100 mm projection on other Sides (slanting shape)
Trailer frame (Chassis) material with support material including pathway	100mm X 50mm C-channel MS - 75mm X 37.5mm C-channel MS - 40mm X 40mm X 5mm (thick) MS angle - 40mm X40mmX5mm(thick)MSTee-35mmX35mmX5mm(thick)MS angleand25mmX25mmX3mm(thick)MSangle
Railing material	38mmX25mm MS pipe of thickness 1.2-1.5mm
Trailer understructure	Spring leaves 914 mm with 13 leaves
Turntable/rotor	100mm X 50mm MS channel and 10 mm thick MS plate plus Spring ply 40mmX5mm
Pathway passage/slide platform	Sliding type made of 35 X 35 X 5mm angle iron with cross Support of 25mm flatiron and top of 1.6 mm aluminum chequered sheet
Stairs frame material	Made of MS pipe frame of 25 X 25 X 1.6 mm with steps of Aluminum chequered sheet (folding type)
Stairs size	710 mm X 230mm having 4-step for1420 mm Height and 735mm with stair
Locking	Locking pins to be provided for lock the platform
Towbar	Made of 100X50 mm channel section with easy detachable And connect with turn table
Ventilation frame material	Exhaust facility
Support material for Door panel fixing	SSU-channel of 18gauge
Door hinges	75 mm size with0.6-0.8mm thickness SS
Tank holder frame material	1125mmX820mm outer ring (tubular structure)-MS
Side panel material	PPGI PUFF Panel 40 mm thickness with GI Sheet of thickness 0.5 mm
Top (Roof) panel material	PPGI PUFF Panel 40 mm thickness with GI Sheet of thickness 0.5 mm
Door panel material	PPGI PUFF Panel 40 mm thickness with GI Sheet of thickness 0.5 mm
Partition panel material	PPGI PUFF Panel 40 mm thickness with GI Sheet of thickness 0.5 mm
Floor material	1.5 mm thick SS 304 material
Size of each cubical (LXWXH)	915mm X 915mm x 1980mm
Door size (W x H)	610mm X 1750mm
Ventilation size(WXH)	650mm X 40mm
Partition height	1830 mm
Overall Length(mm)	4200 mm for 6-seater

Engine	Cummins / CAT / Kirloskar / MTU
Alternator	Stamford / Leroy Somer
ACB	ABB / Schneider / Siemens
Controller	DSE / ComAp / SmartGen
Earthing	Nimbus / JMV / OBO / Equivalent





Technical Specification for Garbage E-Rickshaw

Sr No	Components	Specifications
1)	Vehicle Certification number issued by ICAT	Yes
2)	Vehicle Certification	CATB 0963
3)	Type of E-Cart Garbage Loader	Fully Electric, Battery- Operated Motor Driven
4)	The E-Cart Garbage Loader Must Fabricated from Good Quality Steel & The E-Cart Garbage Loader Must Fabricated From Good Quality Steel & Powder Coating On E-Cart Garbage Loader To Prevent From Corrosion That Increase Life Of Colour And Give More Shine.	Yes
5)	Name and Grade of Steel from which E-Cart Garbage Loader Body Framed	MS
6)	Net Power	1.74 kw @ 1500 rpm
7)	Laden Weight & (Kerb Weight + Loading Capacity including driver passenger and	750-800 kilograms
8)	Run Distance (for a Full Charge of Battery, to be tested with full load at maximum AIS-040) (km)	80-100
09)	Max. 30 min. power	1.53kw @ 1500 rpm
10)	Turning Radius (mm)	2100-2200 Millimeter
11)	Wheel Base (mm)	2700 -2800 Millimeter
12)	Power Transmission from Motor Shaft to Wheels	Direct Mounting
13)	Material of the roof of E-CART GARBAGE LOADER	Combination of Fiber Glass with good Quality Metal
14)	Type of Battery as per AIS-048	Lithium Ion Battery
15)	Capacity of the Battery approved by ICAT/ARAI (Ah)	105AH
16)	Battery Voltage, Nominal (Volts)	48V
17)	The Mounting of Batteries in E- vehicles	Yes
18)	Motor Controller (Must Suitable for starting, accelerating, decelerating, driving, and stopping	Yes

