

## **RT57-06: MOBILE MECHANICAL FIELD SERVICE VEHICLE (HIGH ROOF P/VAN MORE THAN 10.0M³)**

### **1. WORKBENCH, CABINET, RACKING AND SHELVING SYSTEM REQUIREMENT**

- 1.1 The system must be designed to make use of mounting points in the vehicle as effectively as possible.
- 1.2 The system be made from high strength steel which combines maximum strength and safety with a reduction in weight.
- 1.3 The system must be thoroughly tested for load capacity and collision strength.
- 1.4 The system must be developed to withstand the forces they are subject to in a vehicle while driving
- 1.5 All cabinet doors and drawers must be equipped with durable latches preventing from opening when the vehicle is in motion.
- 1.6 The front bulkhead must be dividing the cab and the rear compartment and provide a cavity close to the roof in which equipment can be stored and secured.

### **2. WORK BENCH**

- 2.1 The work bench will be fitted from the front, along the right side wall of vehicle interior.
- 2.2 The work bench must be with the following dimensions:  
Height: 900mm  
Length: 2000mm  
Width: 600mm
- 2.3 A 150mm Bench Vice must be fitted to the work bench and table must be reinforce to withstand the extrema force use of the vice
- 2.4 Bench grinder (Grinding stone and wire brush) must conform to safety specification
- 2.5 The work bench frame must be made from a strong, durable and light material and be able to withstand impact and drag forces.
- 2.6 The frame must be self- supporting and load bearing. The work surface must accommodate a work load of up to 50kg.
- 2.7 The entire system must be tested for load capacity and collision strength.

### **3. SMALL CABINET**

- 3.1 A small cabinet, approximately 800mm wide must be securely fitted on the right side of the workbench and against the side of the vehicle.
- 3.2 The cabinet must be mounted flush with the workbench and extend up to the roof of the vehicle with the rear conform to the shape of the vehicle.
- 3.3 The cabinet must have four equally spaced sturdy shelves.
- 3.4 Two lockable doors must be fitted, covered with chequered aluminium sheet.

### **4. SEVEN DRAWER TOOLBOX**

- 4.1 A lockable seven drawer toolbox must be fitted underneath the work bench on the left side. The size of the toolbox will be approximately 680mm x 800mm, excluding all tools

### **5. SHELVES**

- 5.1 Two equally spaced shelves must be fitted underneath the work bench. The front of the shelves must have a raised edge to prevent equipment and tools sliding out should the vehicle be parked at an angle next to the road.
- 5.2 All the shelves and work surfaces must be covered with a non-slip rubber mat.
- 5.3 The shelves must be closed up with two sturdy lockable doors covered with chequered aluminium sheet.

## **6 STAND-ALONE CABINET**

- 6.1 A stand-alone cabinet must be mounted in the rear against the left side of the vehicle with the rear conform to the shape of the vehicle. The height will be from the floor to the roof of the vehicle and placed approximately over the wheel arch.
- 6.2 The width will be approximately 900mm wide x 500mm deep with five evenly spaced sturdy shelves. Each shelf must have a raised edge and be covered with a non-slip rubber mat.
- 6.3 The cabinet must be properly secured to the side and floor of the vehicle and have two lockable doors which is covered with chequered aluminium sheet.
- 6.4 Enough space must be kept between the stand alone cabinet and the rear door to allow for a gas Porta Pack to be mounted in that space.

## **7. FLOOR**

- 7.1 Floor must be covered with a flat surface and must be water and chemical proof to avoid any liquid from getting between the vehicle's body and flooring material. The floor covering must be water, chemical fuels, oil and slip proof.

## **8. EQUIPMENTS**

- 8.1 Compressor, upright type, mounted in the rear of the vehicle, between the driver seat and work bench with enough ventilation
- 8.2 A 2.5Hp (1.5kW), 100L, 220V compressor with max pressure 116 Psi (8 Bar) must be fitted.
- 8.3 A 20m Retractable air hose with Tyre inflator and pressure gauge fitted to the compressor. Next to the compressor and easy accessible
- 8.4 A A4 size document holder to fit documents securely must be fitted to the side of the cabinet.
- 8.5 A 20L Water bottle, strapped down in a bracket, with tap for washing hands must be fitted on the left rear inside panel, next to the rear door with water pipe and tap to be used for hand washing outside of the vehicle

## **9. SAFETY**

- 9.1 Provision must be made for the installation and fully equipped standard First Aid Box.
- 9.2 Two 5kg CO2 fire extinguishers must be installed in the vehicle, one on each side and must be placed so that they do not hamper the working space of the vehicle.
- 9.3 They must be suitably mounted and be easily accessible in the case of an emergency.
- 9.4 Reflectors must be fitted on the inside of the rear doors and must be visible to oncoming traffic.

## **10. ELECTRICAL SYSTEM**

- 10.1 A complete electrical distribution box supplied from the generator and/ or external power supply 220V with all safety measures must be installed and all electrical wiring to be fed to this box.
- 10.2 All electrical wires must be trunked and not visible.
- 10.3 A 220V 20Amp electrical outlet of the caravan type must be installed at a suitable place on the outside of the vehicle and it must be waterproof and weatherproof. A 2.5mm<sup>2</sup> extension cord with caravan plug with a length of 30m must be supplied.
- 10.4 The vehicle must be fitted with a cross over switch to alternate between generator and 220V mains.
- 10.5 Four (4) Switched Socket, 2 x 3Pin 220V/16Amp, power outlets must be placed above the work bench and against the partitioning with easy access.
- 10.6 These plugs must be wired so that they are connected to the distribution box with their circuit breakers.
- 10.7 A 5.5kva portable Generator, mounted on heavy duty sliding rails.

- 10.8 The Generator must be placed at the driver side rear door and slide outside of the rear doors.
- 10.9 Stabilizer legs must be fitted to support the weight when extended.
- 10.10 Provision must be made to connect generator directly to the AC/DC Power Control Box with a fly lead to the generator.

## **11. DUAL BATTERY SYSTEM**

- 11.1 The vehicle must be equipped with an auxiliary battery system which must be connected to 12V electrical system of the vehicle through a DC-to-DC charging system.
- 11.2 The additional battery must be connected to a 3000W pure sinewave inverter for short term use, without using external 220v access or generator use.
- 11.3 The inverter must be directly connected directly to the AC/DC Power Control Box
- 11.4 The second battery must be a 105Amp/h deep cycle battery.
- 11.5 This system must not interfere with the vehicle original power system

## **12. LIGHTING**

- 12.1 A 12-volt system running from the Aux battery
- 12.2 An on/off switch with a fuse for these lights must also be fitted in the cabin of the vehicle.
- 12.3 Five LED lights must be fitted to the roof on the inside to provide adequate light and another one to illuminate the working area. 12-volt system
- 12.4 6 x LED Lights (interior)
- 12.4 2 x heavy duty LED Magnetic Base Spotlight with bracket for use outside
- 12.5 2 x Aux Power Sockets 12V
- 12.5 3 x Inline Fuses for 12V System (LED Lights)

## **13. WORKMANSHIP AND MATERIAL**

- 13.1 Welding must conform to SANS requirements for the welding of electro galvanized steel.
- 13.2 All material must be new and un-used.
- 13.3 Workmanship and finishing must be in accordance with first trade practices.
- 13.4 Welds, whether spaced or fully, must be free from slag, inclusions, scale or pits and must have no porosity.
- 13.5 Any cavities where dirt may collect, must be sealed with silicon sealer, or similar.

## **14. AWNING**

- 14.1 One fold out awning that fits the vehicle length must be mounted on the left side of the vehicle.

## **15. TOW BAR AND BULL BAR**

- 15.1 A tubular bulbar and tow bar with a step must be fitted.

## **16. RADIO AND GPS AND REVERSE CAMERA**

- 16.1 Radio GPS and rear view camera combination to be fitted.
- 16.2 Homologation certification to be submitted by supplier to re-register vehicle as a mobile workshop
- 16.3 Floor plan to be approved by end users