

## **SPECIFICATION RT57-02-15-01 to RT57-02-18-01**

### **SUB-ONE-TON BAKKIE CANOPIES**

#### **1. GENERAL**

- 1.1. The canopy must be mounted on the existing loading body, as specified on Drawing 1/004A/02 and must be of sturdy and robust construction to withstand rough handling.
- 1.2. The canopy must be fitted on various vehicles and therefore the overall dimensions of the canopy are required to suit the provided vehicle in each case.
- 1.3. The first canopy must be a prototype and must be accepted by Expert Services of the SA Police Service, before production begins

Particulars of offer \_\_\_\_\_

#### **2. SPECIFICATION**

##### **2.1. BODY**

- 2.1.1. The side walls of the canopy must be manufactured from a minimum of 1.2 mm double sided electro galvanized steel plate, chromoprep or similar. The plate must be stiffened to ensure rigidity and to prevent drumming.

State: thickness of material \_\_\_\_\_

- 2.1.2. The side walls must be suitably reinforced with a frame or any other suitable method to form a rigid structure.

State: Reinforcement \_\_\_\_\_

- 2.1.3. The canopy must be sturdily bolted onto the existing loading body (front/ side panels and rear) and must fit tight.

Particulars of offer \_\_\_\_\_

- 2.1.4. All sharp corners must be rounded and edges must be burr free and without sharp edges

Particulars of offer \_\_\_\_\_

- 2.1.5. The gap at any point between the canopy cab of the vehicle must be a minimum of 35 mm. See Drawing 1/004A/02. No fouling condition should occur between canopy and cab under laden rough road conditions

Particulars of offer \_\_\_\_\_

- 2.1.6. The canopy must be equipped with an aerofoil dust deflector as indicated on Drawing 1/004A/02, or a S A Police Service equivalent

Particulars of offer \_\_\_\_\_

- 2.1.7. The sides of the canopy must slant inwards in order to follow the profile of the cab sides  
Particulars of offer \_\_\_\_\_

- 2.1.8. The complete canopy with all necessary accessories viz seats must not weigh more than 130kg. Proof thereof must be submitted during pre-delivery inspection.

State: weight of the complete canopy with seats \_\_\_\_\_

- 2.1.9. The canopy must be aerodynamically built to reduce wind resistance and keep fuel consumption as close as possible to the vehicle manufactures specification (unladen)

State: fuel consumption per litre (with installed canopy) \_\_\_\_\_

- 2.1.10. The inside of the cab and rear part of the canopy must bear a sticker indicating maximum number of passengers the vehicle can carry taking into consideration the inner dimensions of the load body

State: Maximum number of Persons the vehicle can carry with ease \_\_\_\_\_

## **2.2. ROOF**

- 2.2.1. The roof must be manufactured from minimum 1,2 mm steel plate (see paragraph 2.1.1) and affixed to the side walls in such a method as to enhance aerodynamics and be subjected to SA Police Service approval

Particulars of offer \_\_\_\_\_

- 2.2.2. The inside of the roof must be suitably supported to prevent drumming and sagging.

State: Reinforcement \_\_\_\_\_

- 2.2.3. External drip rails to form part of the roof structure on the side of the body

Particulars of offer \_\_\_\_\_

## **2.3. DIMENSIONS**

- 2.3.1. The roof of the canopy must be 930 mm above the bench, up to the intersection of the 30-degree angle, to meet cab height.

State: Height \_\_\_\_\_

- 2.3.2. The width and the length of the canopy must be the same as the existing vehicle loading body.

Particulars of offer \_\_\_\_\_

- 2.3.3. The front of the canopy must make an angle of 30 degree from the height of the cabin roof, to the height of the canopy roof, with the purpose of lowering the air resistance. See Drawing 1/004A/02.

Particulars of offer \_\_\_\_\_

- 2.3.4. PVC side covers (or similar material) must be supplied and fitted. The covers must be of a durable waterproof material and be capable of being rolled up and tied. The covers must be properly seamed. The colour of these covers must be blue. A re-enforcement must be fitted inside the seams of the covers to keep them straight at all times.

State: Material \_\_\_\_\_

- 2.3.5. A method must be supplied to tie the canvas cover properly to the canopy in the rolled down position, so as to cover the entire side openings. The covers must roll up or down. Tie rope may not be used.

State: Method \_\_\_\_\_

## 2.4. **DOOR**

- 2.4.1. The back door must be constructed of a minimum of 1,0 mm steel plate (see paragraph 2.1.1) and reinforced in such a manner as to withstand rough handling. (Drainage holes must be provided at the base, to prevent collection of water.

State: Material \_\_\_\_\_

- 2.4.2. The width of the door must be approximately 800 mm.

State: Door Width \_\_\_\_\_

- 2.4.3. The door must be mounted to the canopy body with a full-length stainless-steel piano hinge.

Particulars of offer \_\_\_\_\_

- 2.4.4. The outside of the door must be fitted with a galvanised and sturdily mounted swing handle of at least 30 x 4 mm flat bar. The catch on the canopy must be of the same material. A stainless-steel back plate of adequate size must be provided to prevent damage to paint when door is opened or closed.

Particulars of offer \_\_\_\_\_

- 2.4.5. The outside of the door must be fitted with two "anti-loose" type locks to accept padlocks. Two stainless steel back plates of adequate size must be provided where the door makes contact with the canopy at these locks

Particulars of offer \_\_\_\_\_

- 2.4.6. The door must be able to open completely and must be fitted with rubber (pin and hole type door catch) to hold the door stable in the open position.

State: Method \_\_\_\_\_

- 2.4.7. Wedges must be fitted to the inside of the door opening and/or to the handle to ensure that the door closes properly and does not rattle while travelling.

Particulars of offer \_\_\_\_\_

## 2.5. **BENCHES**

- 2.5.1. Two benches must be installed inside the loading body: one each side over the full length reaching from the partition to the back of the loading body  
Particulars of offer \_\_\_\_\_

- 2.5.2. The benches must be manufactured of minimum of 1,2 mm electro galvanized steel plate (see paragraph 2.1.1) to form a bench and supports. The supports can be of square tubing or equivalent.

State: Material \_\_\_\_\_

- 2.5.3. The benches must be mounted directly on top of the wheel arches and must be 320 mm wide. See Drawing 1/004A/02

Particulars of offer \_\_\_\_\_

- 2.5.4. The benches must have strengthened mountings into the side walls to prevent tearing loose through excess use.

Particulars of offer \_\_\_\_\_

## 2.6. **WINDOWS**

- 2.6.1. There must be an opening on both sides of the canopy, as shown on drawing 1/004A/02. These openings must be edged off with rubber edging.

Particulars of offer \_\_\_\_\_

- 2.6.2. The openings must be equipped with steel gauzed screens on the inside of the openings

Particulars of offer \_\_\_\_\_

- 2.6.3. A fixed window of approximately 700 x 300 mm must be fitted to the front of the canopy. A fixed window of 600 mm x 400 mm must also be fitted to the door of the canopy. These window panes must also be manufactured of 4 mm toughened glass to SABS specifications.

State: Window sizes \_\_\_\_\_

## 2.7. **WINDOW GUARDS**

- 2.7.1. Welded mesh guards of size approximately 25mm x 50mm x 5mm thick must be fitted to ALL WINDOWS.

State: Guard type \_\_\_\_\_

- 2.7.2. The guards must be mounted on the inside of the side openings and 50 mm away from the front and rear window on the inside thereof. All guards must be painted black and must be able to withstand a minimum of 120 hours salt spray

Particulars of offer \_\_\_\_\_

- 2.7.3. The guards must be mounted with suitable tamper-proof rivets or equivalent.

State: Mounting \_\_\_\_\_

- 2.7.4. The guards must be treated with an approved E-cote before painted black.

State: Type of treatment \_\_\_\_\_

- 2.7.5. Two strips of flat bar 20 mm x 4 mm must be welded vertically on the inside in front of each window to form three (3) equally spaced gaps.

Particulars of offer \_\_\_\_\_

- 2.7.6. These bars must be horizontally supported in the middle by the same flat bar as in 2.7.5.

Particulars of offer \_\_\_\_\_

## **2.8. AIR INLET**

- 2.8.1. An air inlet must be provided on the front of the canopy to enable fresh air to flow freely through the canopy at all times. See drawing 1/004A/02.

Particulars of offer \_\_\_\_\_

- 2.8.2. The air inlet must consist of: A hole on the front slanted surface of the canopy with dimensions of 100 mm x 200 mm. This hole must be provided with a 10 mm outward shoulder to prevent water from leaking into the canopy.

Particulars of offer \_\_\_\_\_

- 2.8.3. A suitable cover with a maximum inlet opening of 300 mm x 25 mm must be mounted over the hole.

Particulars of offer \_\_\_\_\_

## **2.9. LIGHTS AND WIRING**

- 2.9.1. ALL WIRING MUST BE APPROVED BY THE VEHICLE MANUFACTURER, PROOF THEREOF MUST BE AVAILABLE ON REQUEST.

- 2.9.2. NB: ALL WIRING MUST BE PROVIDED FROM THE CONNECTING BOX IN FRONT TO THE WARNING ROOF LIGHTS AT THE BACK EXCEPT WIRING FOR THE LIGHT BAR AT THE FRONT OF THE CANOPY.

### **2.9.3. *Warning lights roof (rear):***

- 2.9.3.1. Provision must be made for the mounting of two single rotating beacons, one blue (left) and one amber (right) by means of steel pipes.

- 2.9.3.2. An on/off switch with a 15 Amp fuse must also be fitted on the dash board and wired to the lights. Provision must be made for a proper earth connection. This switch must be properly named and on/off position indicated

- 2.9.3.3. All wiring must be channelled to prevent any fiddling from the inside

- 2.9.3.4. These lights will be supplied and fitted by the SAPS

Particulars of offer \_\_\_\_\_

### **2.9.4. *Warning lights (roof):***

- 2.9.4.1. Provision must be made for the mounting of a light bar at the front of the canopy by means of two 100 mm wide steel brackets. See drawing 1/004A/02. In the case of the double cab version vehicle, this light bar will be mounted on the cab, which make the brackets absolute. The wiring must be re-routed to accommodate the light bar on the roof of the cab

- 2.9.4.2. A switch must also be fitted to the dash board and wired to the lights to ensure that the light bar can be operated independently. This switch must be properly named and on/off position indicated

- 2.9.4.3. These lights will be supplied and fitted by the SAPS. Care must be taken to ensure that the mounting of the light bar on the steel brackets does not create problems with installation.

Particulars of offer \_\_\_\_\_

#### **2.9.5. Head Lights (Flasher)**

- 2.9.5.1. The two high beams in the front of the vehicle must flash separately.
- 2.9.5.2. On/off switches must be fitted to the dashboard of the vehicle. The system must be protected by an in-line 15 Amp fuse and all wiring must be channelled and protected
- 2.9.5.3. The vehicle must be fitted with a head light flasher unit incorporating the connecting relay box to accommodate all SAPS emergency visibility equipment. See Specification 1978A/2004

Particulars of offer \_\_\_\_\_

#### **2.10. PREPARATION AND PAINT**

- 2.10.1. All interior and exterior ferrous metal surfaces must be metal finished to remove burrs, welding splatter and scale, and must be thoroughly cleaned by using a suitable detergent. Apply iron phosphate or recommended rust preventative to ensure no flash rusting occurs

Particulars of offer \_\_\_\_\_

- 2.10.2. All joints must be rendered waterproof by welding and rust-proofing by zinc chromate sealant

Particulars of offer \_\_\_\_\_

- 2.10.3. Prime all exterior surfaces with zinc chromate primer to give a minimum dry film build of 40 microns. Prime all interior surfaces to give a minimum dry film build of 25 microns. Only an approved primer may be used. This layer is subjected to inspection and acceptance by Expert Services, S A Police Service before any further painting may be undertaken

Particulars of offer \_\_\_\_\_

- 2.10.4. The whole inside and outside of the canopy must be spray painted to give the following minimum Top Coat Build:

Particulars of offer \_\_\_\_\_

- 2.10.5. All exterior surfaces to 40 microns minimum. Total film build is 80 microns minimum. (Primer 40 microns plus Top Coat 40 microns). All interior surfaces 35 microns to give a total dry build of 60 microns minimum. The paint must be the same colour as the Cab. The paint to comply with a Turbo Fleet 2K enamel or approved equivalent

Particulars of offer \_\_\_\_\_

### **2.10.6. Protection of boxed sections:**

2.10.6.1. All interior surfaces of such areas must be coated with an approved fogging wax to a 10-15-micron dry build

2.10.6.2. Canopies must be painted the same colour as the vehicle.

Particulars of offer \_\_\_\_\_

### **3. WORKMANSHIP AND MATERIAL**

3.1. Material must be new and of the appropriate grade and size. Workmanship and finish must be in accordance with high quality trade practice

Particulars of offer \_\_\_\_\_

3.2. Welding must conform to SANS requirements for the welding of electro galvanized steel.

Particulars of offer \_\_\_\_\_

3.3. Welds, whether spaced or full, must be free from slag inclusions and must have no porosity

Particulars of offer \_\_\_\_\_

3.4. Any cavities where dirt may collect, must be sealed with silicon sealer, or similar

Particulars of offer \_\_\_\_\_

### **4. INFORMATION WITH BID**

4.1. Additional information for evaluation of the offer may be supplied

4.2. Deviation from the specification must be listed in order of sequence. Where no deviations are listed, the offer shall be accepted as complying fully with the specification requirements

Particulars of offer \_\_\_\_\_

### **5. INSPECTION AND ACCEPTANCE**

5.1. The first-off unit shall be considered as a prototype and shall be subjected to inspection and acceptance by Expert Services, S A Police Service. All further units shall be constructed in a similar manner to that of the approved prototype

5.2. All materials, workmanship and construction shall be subjected to inspection and acceptance by Expert Services, S A Police Service.

5.3. The successful bidder will be responsible for carrying out all necessary pre-inspection tests. If problems exist after inspection as described in 5.1, then the cost of all further inspection will be carried by the successful bidder, who may be asked to carry out a durability test of a minimum of 5,000 km over rough roads.

### **6. WARRANTY**

6.1. All construction work must be guaranteed in terms of the General Conditions of Contract