

TENDER SPECIFICATIONS 2010/2011

SC979/ 2010

GENERAL

Specifications are intended to serve as a general guide and tenderers may submit an offer for their standard equipment, even though such equipment does not incorporate, in their entirety, all the features specified for the various items. In such cases tenderers must indicate clearly the variations and details of same.

STANDARD SPECIFICATIONS TO ALL VEHICLES WHERE APPLICABLE

1. The cost of the licence/registration and number plates must be included in the tender price.
2. All vehicles to be fitted with a Tracking System which complies with the system currently used by the Overstrand Municipality.
3. All wheels to be fitted with mud guards where applicable.
4. Corrosion protection (at least 3 years) where applicable.
5. Guarantee spares and services to be specified where applicable.
6. Supplier to have a workshop within Overstrand municipal area.
(not applicable for heavy vehicles specified as per section (B.1; B.2; & C.1.)

A : LIGHT VEHICLES:

A.1) 1 X ONE TON LWB LIGHT DELIVERY VEHICLE

Engine capacity: 2000 CC

Petrol

Fitted with a Towbar

Full fibreglass canopy with half door to fit vehicle

Canopy must be fitted with 2 side windows, bulk head windows and a door window.

Galvanised roof rack to carry long ladders.

Roof rack must be fitted with 4 ratchet tie straps

A.2) 1 X ONE TON LWB LIGHT DELIVERY VEHICLES

Engine capacity: 2000 CC

Petrol

Fitted with a Towbar

Half fibreglass canopy to fit vehicle

Galvanised roof rack to carry long ladders

Roof rack must be fitted with 4 ratchet tie straps

A.3) 1x ONE TON LWB LIGHT DELIVERY VEHICLES (4X4)

Engine 2.5 Turbo Diesel (2480 - 2500 cc)

Fitted with a Towbar

Fitted with a Bullbar

Loadbody must be treated with polyurethane heavy duty coating.

Colour: White

The price quoted must include supply and fitment of the following as per undermentioned specifications:

A.3.1. INTEGRATED P.A. SIREN RANGE

- Integrated PA Siren Amplifier designed to fit into DIN size radio aperture.
- Autolight – The automatic switching on of the primary emergency lights when the siren is activated.
- The switching of a Gizwag and 3 sets of secondary lights when connected to LX50R Junction Box.
- PTT switch on microphone allows for siren tone over-ride when selected.
- The connection between the Amplifier and the Lightbar is by means of a thin 4-way cable.
- Wail and Yelp tones in accordance with Road Traffic Act. Stenner tone available.
- Radio input for broadcast of 2-way radio.
- Peak tone for pull-over and instant warning.
- The Siren tones and primary emergency lights may be controlled by the horn ring.
- 100 Watt siren amplifier with HD110R exceeds sound pressure level of 123dB in Siren mode.
- P.A. sound pressure level exceeds 115dB.
- Ideal for use with Rotator lightbars or in systems with multiple emergency lights.

A.3.2. SIREN DRIVER SYSTEMS

- Fitted with highly efficient Ferrofluid weatherproof driver – round horn.

A.3.3. SLIMLINE LIGHTBAR RANGE

- Ultra low profile unit, aerodynamically efficient and unobtrusive until lit.
- All round, 360 Degree light output.
- Front and rear assemblies individually user programmable.
- Long service life due to LED technology and no moving parts.
- LEDs rated to 100 000 operational hours.
- Solid state electronics.
- Aluminium extrusion base for strength and durability.
- Aluminium extrusion top minimizes effect of sunlight on visibility of LEDs.
- Polycarbonate lenses with UV protection.
- GEN III Slimline LED Modules – 1.0M Bar – 4 front LED clusters – 4 rear LED clusters – 6 sides LED clusters – Red

A.3.4. Aluminium Rollcage

- Aluminium checker plate rollcage mounted behind cab on load body.
- Warning light to be mounted on top of cage

B. HEAVY VEHICLES:

B.1. 1 X TRACTOR

1. 40 kW engine power
2. Rear Tyres not less than 14.9/24"
3. With half Canopy
4. With 3 Point and PTO

B.2. 1x 6 000 Litre Diesel Powered Vacuum Sewerage Tanker

B.2.1. SPECIAL SPECIFICATIONS

1. Mechanical engine monitoring system with automatic delayed engine shutdown, which monitors: oil pressure, water temperature, water level and engine speed.
2. One rear axle (2 x 4).
3. Hydraulic power assisted steering.
4. Reverse warning lights and hooter.
5. Rear under-run bumper or equivalent legal device.
6. Yellow reflective side and rear markings to SABS standards.
7. Detailed specifications must be submitted with each tender document.
8. Minimum output not less than 120 kW.
9. Evaluation will be done on a ratio between price and engine output.

B.2.2. CAB AND CHASSIS

Chassis must be adequately designed and strengthened to accommodate the load-body and all associated equipment.

- (a) White colour body.
- (b) Corrosion Protection – at least 5 year guarantee OR full “West Coast Treatment”.
- (c) Stone guards and mud flaps: all wheels.
- (d) No unnecessary decals.

B.2.3. COMPULSORY

- (a) Vehicle must comply with the regulations of the National Road Traffic Act, Act 93 of 1996, as amended.
- (b) Full fuel tank and a lockable fuel tank cap with 2 keys, separate from ignition and door keys.
- (c) Workshop manual (if not previously supplied).
- (d) 2 x warning triangles.
- (e) Jack and wheel spanners.
- (f) Floor mats x 3.
- (g) Spare wheel suitably situated and lockable on carrier.
- (h) Fire Extinguisher (DCP/CO₂) 2,5kg STP fitted in crew cab with hold-down bracket.
- (i) 1 x amber rotating / flashing dome light, visible from all four corners of the vehicle.
- (j) A night working light of adequate design must be fitted to the rear of the tanker with manual controls situated inside the cab.

B.2.4. TANK / LOADBODY

- (a) A proposal containing detailed drawings must be submitted with each tender document.
- (b) The unit must be capable of carrying 6 000kg of payload.
- (c) Single tank with a total capacity of 6 000 litres AND of white colour.
- (d) Constructed of 5mm sides and 6mm dished/domed ends of rust treated commercial quality steel (3CR12) and suitably proofed against corrosion on the inside and outside of the tank.
- (e) Mounted on flexible mountings on the chassis with a minimum fall of 225mm over the length of the tank.
- (f) Exterior reinforcement rings to be used as well as internal reinforcement.
- (g) Four equidistant internal baffles with removable sections to permit entry to all compartments per tank.
- (h) 150mmØ outlet quick acting valve at bottom rear. Separate 75mm inlet at bottom rear. Ball valve and male parrot coupling.

- (i) Automatic interceptor, non-return valves, and other equipment must ensure efficient vacuum build-up.
- (j) Access to manhole, vents and pump engine from the left hand side, by safely constructed ladders and walkways which should be rubberised on the surfaces / walkways.
- (k) Sniffer valve releasing vacuum when tank is full.
- (l) A contents indicator of the fluid level per tank must be installed and must be positioned so as to allow the operator to monitor levels without great effort.

B.2.5. PUMP AND POWER PLANT

- (a) Dry type pump or NASH AH70 water cooled fully Hydraulic operated.
- (b) The pump must be easy accessible.
- (c) All equipment fitted at the rear of truck must be protected from accidental damage.
- (d) All movable suction piping / hosing to be of the 75mm PVC Kanaflex tubing with "Parrot beak" quick couplings and delivery piping / hoses should be 75mm. A reducer of 150mm to 75mmØ must be supplied.
- (e) All fixed delivery piping should be of 150mm galvanised steel.
- (f) The pump should be adequately designed with a minimum capacity of 260m³ per hour. Submit pump details with tender document.
- (g) All movable pipes / hoses should be at least 5 metre in length.
- (h) If water cooled vacuum pump is fitted, water reservoir must be manufactured out of stainless steel and indicator of fluid level

B.2.6. ACCESSORIES (LOADBODY)

- (a) A toolbox of approximately 1000 x 500 x 500mm mounted to the left-hand side of the truck to the chassis and with a lockable door (including padlock and two keys) beneath the steel tray.
- (b) Two steel trays approximately 450mm width and 150mm depth, running the length of the tank (5,5 metres minimum) and of adequate design to accommodate all sundry piping / hosing; attention should be given to anti-vibration methods of affixing to the chassis and clamps / fittings to tie down all equipment.
- (c) Six 75mm x 5000mm Kanaflex piping including couplings as described in B.2.5. (d), additional.
- (d) One 150mm x 5000mm Kanaflex piping including couplings as described in B.2.5. (e), additional.

C. 1 X DIESEL POWERED REFUSE COMPACTOR VEHICLE WITH BIN-LIFTER (15 CUBIC METER)

SPECIAL SPECIFICATIONS

C.1 Chassis Cab

- 1.1 A heavy-duty two axle, diesel powered truck with high compaction refuse compactor body is required.
- 1.2 The chassis must be of robust construction with a manufacturers GVM rating of at least 15000kg.
- 1.3 The vehicle must be equipped with a diesel engine delivering a net output, of not less than 150kw and net torque of not less than 800Nm. Rated according to SABS 013-

1997. The engine is required to be operated on lubricating oil to the current SABS 400A specification.

- 1.4 The air cleaner must be of the two-stage dry type, incorporating automatic intermittent self-cleaning action.
- 1.5 The air cleaner must be of South African manufacture unless customising renders fitting of the South African unit impractical. The air cleaner shall use replaceable elements of South African manufacture.
- 1.6. A standard heavy duty manual transmission, geared to be capable of a gradient ability of not less than 245 under full load at maximum net torque and with a transmission efficiency of 85% is required (complete at GVM).
- 1.6 A heavy duty, single speed Power Take-off shall be provided and shall be compatible with that of chassis transmission. The PTO shall be activated by an Electric Signal (Hot Shift).
- 1.7 The PTO must run quietly. Gearing shall be selected for minimum engine RPD compatible with recommended pump RPM for correct operating pressure and rates of flow for the refuse body.
- 1.8 Power Take Off controls shall be conveniently mounted in the cab.
- 1.9 The vehicle must be fitted with heavy-duty double acting shock absorbers on the front axle.
- 1.10 Power assisted steering is required. (State-turning circle).
- 1.11 The vehicle must be equipped with full air pressure assisted service brakes. Submit full details of the emergency parking brake.
- 1.12 The cab shall be fully enclosed all metal and lockable.
- 1.13 The cab shall provide that driver good all-round vision with comfortable seating with the usual facilities to hand.
- 1.14 The vehicle shall be equipped with an efficient heater/demister and ventilation system.
- 1.15 The tyres must be of South African manufacture. All tyres must be of the same ply rating and not smaller than 11R22.5-16 ply. Tyre loads, as well as tyre to rim matching, must comply with the current SABS 1550: 1992 specifications. A complete spare wheel, suitably mounted is required.
- 1.16 Tenderer must submit a detailed mass distribution drawing, showing all leading dimensions tare, mass, axle loadings and payload capacities.

C. 2. Crew Compartment

- 1.1 A waterproof crew compartment with seating for six persons, a lockable door and adequate windows/ventilation is required, fitted between the body and the cab. The compartment is to be constructed of Cor Ten, Zintex or other suitable rust resistant material. The floor of the crew cab shall be covered with non-slip material.

C.3. Compactor Body

- 3.1 The compactor body must be capable of compacting refuse at a minimum ration of 3:1. The structural integrity of the body shall allow consistent high density loading of normal refuse without any distortion of stress failure over the life of the compactor.
- 3.2 The compactor body shall have a capacity, excluding the receiving hopper, of not less than 15m³.
- 3.3 The hopper shall have a capacity of 1,75m³. The hopper floor of the compactor shall be manufactured from "Rog-last" or equivalent material.
- 3.4 The body interior shall have a capacity, excluding the receiving hopper, of not less than 15m³.
- 3.5 In order to prevent damage from corrosion and fire, no hydraulic cylinders, valve or other hydraulic components shall come in contact with refuse packed into the body.

- 3.6 The packing cycle time shall be no greater than 16-20 seconds. Operator reload time shall be no greater than 9-11 seconds.
- 3.7 The hydraulic pump shall be designed to operate continuously with peak loading at frequent, short intervals.
- 3.8 Parking cycle control shall be mechanical, lever operated on left hand of the tailgate. A two lever design, the operator shall have the capability to start, stop and reverse the direction of any function at any time throughout the packing cycle.
- 3.9 Controls should include a bell, buzzer or a simple inter communication system between the driver and the crew at the rear.
- 3.10 The packing mechanism shall be equipped with an "automatic crowd" pressure sensing device, which will enable the packing mechanisms to find a path through the load which will neither stall the mechanism nor damage the structure thereby prolonging the hopper floor and mechanism life.
- 3.11 All packing mechanism links shall have replaceable hardened steel bushings for extended service life.
- 3.12 Each hopper full of material shall be compressed between the packing blade, upper panel and ejector unload valve. No operator attention shall be required to advance the ejector panel as the body fills.
- 3.13 The load shall be discharged by means of a positive ejection system. A double acting, telescopic hydraulic cylinder shall extend and retract the ejector panel the full length of the body. The ejector cylinder shall attach to the body and the ejector panel diagonally to minimize possible damage from offensive liquids.
- 3.14 The ejector panel shall extend and retract without the assistance of clamp bars or associated hardware.
- 3.15 The ejector panel and tailgate raise controls shall be mounted outside the body on the front left hand side of the body.
- 3.16 To minimize hydraulic cylinder weight, a high-pressure hydraulic system shall be employed. The operating pressure of the system shall be 2400-2500 PSI. Low-pressure systems shall not be acceptable.
- 3.17 The hydraulic system shall incorporate adjustable relief valves to protect all components from excessive pressure and overloads.
- 3.18 The packer blade and slide cylinders must be of the internal cushion design so that hydraulic shock and audible noise is minimized. This shall be accomplished by a design, which will decrease the speed of the cylinder for the last 12mm of cylinder stroke on both directions of travel.
- 3.19 The tailgate shall be raised with two (2) single acting hydraulic cylinders. The cylinders shall incorporate an integral orifice, which will limit the descent speed of the tailgate in the event of hydraulic failure.
- 3.20 Rods of inside and outside packing cylinders must be induction hardened to a surface hardness of 55-65 Rockwell C scale.
- 3.21 Rods of all cylinders shall be chrome plated.
- 3.22 All cylinders must have a working pressure rating of no less than 2500 PSI.
- 3.23 Tailgate shall be equipped with heavy-duty 25mm diameter turnbuckles, one on each side of body, to secure the tailgate in the closed position against the body to prevent leakage.
- 3.24 The tailgate shall be equipped with a one piece, removable rubber seal. The seal shall extend across the entire bottom width of the tailgate, and provide for watertight seal vertically up the side for no less than 500mm.
- 3.25 Two (2) grab handles shall be located on each side of the tailgate for operator safety and comfort.

- 3.26 Rear steps, mounted on the sides of the tailgate shall be fabricated from 12 gauge slip resistant, self-cleaning material.
- 3.27 An electric device shall be supplied to automatically raise the engine speed to the proper RDM during the packing cycle.
- 3.28 An additional throttle switch shall be located at the front let hand side of the body within hands reach of the ejector and tailgate raise controls.

C.4. Bin Lifting Mechanism

- 4.1 One Maclift 450 Binlifter or Similar lifter must be fitted to lift 240l and 770l bins. Control valve and mounting bracket must be fitted. No part of the lift shall be closer than 450mm to the ground. This is to protect the mechanism against any damages.

C.5. General

- 5.1 The vehicle must be finished in white final colour.
- 5.2 The vehicle must have a substantial bumper and towing eye in front.
- 5.3 A lockable fuel cap and battery box/es are required.
- 5.4 The vehicle is to be equipped with a reversing warning bleeper.
- 5.5 All electrical wiring connectors to be automotive double-seal, with wiring in slit convoluted loom.
- 5.6 Clearance, back up, and directional lights shall be Lexan lens, shock mounted in a protective housing. The whole unit shall be pop out and replaceable. Not with standing, the vehicle shall be equipped with all lights in accordance with the latest compulsory vehicle standards.
- 5.7 A four-unit truck light type flasher box will be fitted on the rear of the compactor.
- 5.8 Essential operator's tools including a 10-ton (metric) hydraulic jack, triangles and wheel spanners must be provided.
- 5.9 Operators and Services parts manuals must be provided for the truck and equipment inclusive with each vehicle.
- 5.10 The complete vehicle must be fully guaranteed for at least 12 months or 20 000km and for at least three years against any body rust or paint defects, fair wear and tear excluded.
- 5.11 Tenderers must please specify despatch period after placing of order, clearly in terms of lead-time and rate of despatch .
- 5.12 State whether any free services are included in the tendered price and where such services will be carried out.
- 5.13 State whether any operators training will be provided upon delivery of the vehicle.
- 5.14 The licensed vehicle complete with a current COF certificate is to be delivered at the Overstrand Municipality Mechanical workshops, Hermanus (Cost of licensing, etc. to be included in price of vehicle.).

D.1. SUPPLY AND FITMENT OF CANOPIES

- D.1.1. 4 X HALF CANOPIES to fit Nissan Cabstar 3 Ton Tipper**
- D.1.2. 1x HALF CANOPY to fit Isuzu 3 Ton Truck**

The specifications for canopies are as follows:

Canopies to fit 3 ton Trucks

Canopies must be galvanized.

Canopies must have no windows on the sides but one bulk head window.

The bulk head window must have a galvanized grid cover on the inside of the canopy.

No seats

Size of canopies: Height – 1800mm

Width - 2000mm

Length – 1200mm

Colour: White

D.2. SUPPLY AND FITMENT OF CANOPIES

D.2.1. 1x HALF CANOPY to fit Nissan Cabstar UD 35

D.2.2. 1x HALF CANOPY to fit Isuzu 3 Ton Truck

The specifications for canopies is as follows:

Canopies to fit 3 ton Trucks

Canopies must be galvanized.

Canopies must have fixed windows on both sides as well as a bulk head window.

The bulk head window must have a galvanized grid cover on the inside of the canopy.

Timber slated seats on both sides.

Size of canopies: Height – 1600mm

Width - 2000mm

Length – 1200mm

Colour: White

APPROVED BY:

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Signature: Manager: Corporate Projects

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Date

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Signature: Director: Community Services

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Date