	Specification	
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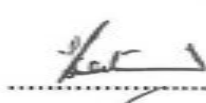
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CONTROLLED DISCLOSURE

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1. INTRODUCTION

This document was compiled to satisfy the need for standardised vehicle safety specifications in order to comply with new legal and Eskom requirements. It will give business units an understanding of the specifications to be met to comply with Eskom's and legal requirements. If the specifications of the vehicle or of the equipment used with the vehicle are not covered by this document, the BU has to ensure that all safety requirements are complied with in accordance with the relevant standard, regulations, or code of practice for that specific vehicle or equipment.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document applies throughout Eskom Holdings Limited, its divisions, subsidiaries, and an entity in which Eskom has a controlling interest, for example, contractors employed to transport Eskom employees. It covers Eskom's specifications, the requirements of the Road Traffic Act, and the Construction Regulations, but excludes lifting machinery operations and mobile equipment.

2.1.1 Purpose

The purpose of the document is to standardise Eskom's vehicle specifications. These specify the basic requirements that shall apply to all Eskom vehicles and to vehicles used for Eskom activities (when contracted out to third-party service providers) and include the transport of Eskom employees.

The BUs may determine additional requirements to suit their needs or work requirements, as long as such changes comply with the manufacturer's specifications as well as the relevant legislation and do not expose an employee or a member of the public to risk.

2.1.2 Applicability

This procedure applies to vehicles in all Eskom divisions and subsidiaries, including vehicles, hired or leased cars, scheme cars, or any vehicle the employee makes available for business purposes.

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.1.3 Normative

Road Traffic Act, Act 93 of 1996, as amended

Sedan, LDV, and Ancillary Equipment Specification – September 2006 – Distribution document

Occupational Health and Safety Act, Act 85 of 1993, Construction Regulations

32-93 Revision 2 – Eskom Vehicle and Driver Safety Management Procedure

32-239 – First Aid and Emergency Care

34-445 – Standard for the Use of Equipotential Earth Footplates

Truck and Ancillary Equipment Specification for the Distribution Fleet (DISSCABKO)

32-591 Managerial-level Car Allowances (E Levels, TASK Grades M/P/G/S 14 to 18)

2.1.4 Informative

32-109 – Corporate Identity Policy

SANS 1563 – The Strength of Large Passenger Vehicle Superstructures (Rollover Protection)

SANS 1055 – Rear under Run Protective Devices

2.2 DEFINITIONS

2.2.1 Construction vehicle: any vehicle that is used to transport people, equipment, and all material on a construction site.

2.2.2 Passenger vehicle: a vehicle used for transporting passengers, for example, a minibus, midibus, or bus, including an LDV and a truck (HCV) when they are used for carrying passengers in the back.

2.2.3 Vehicle: any vehicle propelled by a petrol, a diesel, or an electric energy source, used for performing work and/or for transporting passengers on Eskom's business.

2.2.4 Vehicle monitoring device (VMD): a vehicle-monitoring device that monitors the speed, distance, location, etc. of a vehicle.

2.2.5 Minibus: transports fewer than 16 (sixteen) passengers (specify the sizes and definition of minibus).

2.2.6 Midibus: transports more than 16 (sixteen), but fewer than 35 (thirty-five) passengers.

2.2.7 Bus: transports more than 35 (thirty-five) passengers.

2.2.8 Eskom-owned vehicle: any vehicle purchased by Eskom Holdings, excluding scheme vehicles, or any vehicle the employee makes available for business purposes and which is insured directly or indirectly by Eskom.

3.2.9 Management of change: the applicability and suitability (mechanical, electrical) of any changes or modifications to vehicles that affect the vehicle safety rating shall be approved by the Divisional Risk Manager.

3.2.10 Flagman: a man who signals with or carries a flag.

3.2.11 Banksman: a crane driver helper who signals instructions to the driver for the movement of the crane.

3.2.12 Signalman: a construction road employee in charge of signals and points in a construction site or yard.

3.2.13 Pointsman: an allocated employee stationed at a particular intersection to direct traffic.

2.3 CLASSIFICATION

- a. **Public domain:** published in any public forum without constraints (either enforced by law or discretionary).
- b. **Controlled disclosure:** controlled disclosure to external parties (either enforced by law or discretionary).
- c. **Confidential:** the classification given to information that may be used by malicious/opposing/hostile elements to **harm** the objectives and functions of Eskom Holdings Limited.
- d. **Secret:** the classification given to information that may be used by malicious/opposing/hostile elements to **disrupt** the objectives and functions of Eskom Holdings Limited.
- e. **Top secret:** the classification given to information that may be used by malicious/opposing/hostile elements to **neutralise** the objectives and functions of Eskom Holdings Limited.

2.4 ABBREVIATIONS

Abbreviation	Description
ABS	Antilock brake system
BU	Business unit
CD	Compact disk
A&F	Assurance and Forensic
EDC	Eskom Documentation Centre
HCV	Heavy commercial vehicle
km/h	Kilometres per hour
LDV	Light delivery vehicle (bakkie)
MD	Managing Director
VMD	Vehicle monitoring device
SANS	South African National Standards
SHE	Safety, health, and environment
HRA	Health risk assessment
NRTA	National Road Traffic Act
LED	Light-emitting diode

2.5 ROLES AND RESPONSIBILITIES

The BU manager (employer) must ensure that his/her BU complies with the requirements of this document.

2.6 PROCESS FOR MONITORING

The process will be monitored for compliance by the Corporate Assurance and Forensic Department.

2.7 RELATED/SUPPORTING DOCUMENTS

3. DOCUMENT CONTENT

3.1 STANDARD MINIMUM SPECIFICATIONS

All vehicles purchased or hired after the implementation date shall meet the following basic requirements, when available in the market (as per DISSCABKO and DISSCABQ9):

- Factory-fitted antilock brake system (ABS).
- Factory-fitted driver and passenger airbags.
- Factory-fitted alarm/immobiliser.
- Factory-fitted power steering.
- Tyres as per manufacturer's specifications for the intended purpose. Managers to consult with Distribution fleet for advice, where needed.
- Emergency warning triangle.
- Factory-fitted safety belt warning light or signal.
- All LDVs shall be fitted with a roll bar suitable for cab protection in the event that the vehicle overturns, in accordance with SANS 1563.
- All Eskom-owned vehicles must carry a label containing the wording: "In case of emergency, please call (applicable contact number)", affixed to the right-hand rear side of the vehicle. The contact number(s) on the label must be the all-hours number(s) of the BU concerned. The labelling must be according to corporate identity requirements.

3.2 TRUCKS GVM IN EXCESS OF 3 500 KG

All trucks shall meet the following basic requirements in addition to the standard minimum specifications and in accordance with the provisions of the Road Traffic Act, as amended:

- Reverse alarm/beeper.
- Reverse lights.
- If the truck is used for carrying passengers in the back, it must have a crew cab with seats and safety belts.
- Yellow reflective tape that must be fitted as per the National Road Traffic Act specification.
- Mud flaps (SANS 1055 standards).
- Under run protection device (SANS 1055 standards).
- Chevron warning plates as per the National Road Traffic Act specification.
- There must be a speed limit warning sign as per the National Road Traffic Act specification.

3.3 MINIBUSES

All minibuses shall meet the following basic requirements in addition to the standard minimum specifications and in accordance with the provisions of the Road Traffic Act, as amended:

- Three-point safety belts for every seat.
- No fold-up or jockey seats.
- There must be a speed warning sign at the back of the minibus.
- Yellow reflective tape that must be fitted as per the National Road Traffic Act specification.

If the minibus has the capacity to transport 12 (twelve) passengers or more, the following additional requirements shall apply:

- The driver's seat must be adjustable and partitioned as per the National Road Traffic Act specification.
- The tyres must be commercial steel-belt radial tyres 8-ply.
- The minibus must have at least one emergency exit for every 12 (twelve) passengers.

3.4 MIDIBUSES AND BUSES

All midibuses shall meet the following basic requirements in addition to the standard minimum specifications and in accordance with the provisions of the Road Traffic Act, as amended:

- Three-point safety belts for every seat.
- No fold-up or jockey seats.
- There must be a speed warning sign at the back of every midibus.
- Yellow reflective tape that must be fitted as per the National Road Traffic Act specification.
- The driver's seat must be adjustable. The driver's compartment must be partitioned as per the National Road Traffic Act specification.
- The tyres must be commercial steel-belt radial tyres 8-ply.
- The midibus must have at least two identified emergency exits for every 12 (twelve) passengers.
- Steps must have anti-slip treads.
- No panel van or vehicle designed for goods delivery to be converted into a passenger vehicle.

3.5 TRAILERS AND CARAVANS

All Eskom-owned, rented, and hired trailers and caravans shall meet the legislative requirements.

3.6 CREW CABS

If any LDV needs to be converted to transport passengers at the back, it must comply with crew cab specifications.

3.6.1 Minimum requirements

A fixed or removable crew cab to be fitted must be designed in accordance with the National Road Traffic Act specification.

A certificate of approval must be obtained from SANS with every installation.

Approval and acceptance must be done by the Divisional Fleet Manager or SHEQ Managers. Divisions must comply with at least the following requirements:

- Cabs should be secured or fitted according to the specifications.
- Fitted with a roll cage designed in such a manner as to withstand being crushed in a rollover incident.
- Adequate emergency exits to accommodate escape routes in all possible vehicle positions after an accident.
- Proper seating, fitted with four-point seatbelts.
- Fitment of any other apparatus in such a manner that it will be secured in the event of vehicle rollover or collision.

3.7 CONSTRUCTION VEHICLES

The following requirements were put in place as a result of construction vehicle incidents.

3.7.1 Minimum requirements

- All operators, flagmen, banksmen, signalmen, or pointsmen to wear LED-illuminated reflector vests at identified high-risk sites and construction projects.
- Reverse cameras shall be fitted on all heavy construction vehicles where reversing is unavoidable.
- Construction vehicle to use choc blocks when the engine is required to remain running while performing the task, for example, water trucks.

3.8 OTHER REQUIREMENTS

3.8.1 The following must be retrofitted in vehicles, where applicable:

- a) It is advisable that employees have first-aid kits/boxes in their vehicles, Eskom-owned vehicles, and motor allowance vehicles, as well as high-risk drivers travelling 1 000 km or above per month.
- b) Vehicle monitoring devices (VMDs) to be fitted in Eskom-owned vehicles only.
- c) Factory-fitted air conditioner.
- d) Factory-fitted audio system – radio/CD player.
- e) No earphone will be used in high-risk operating areas where employees are required to hear emergency alarms.
- f) If anyone identifies any hazards not addressed by this document, the employer or driver must take additional steps in the interest of safety.
- g) To improve vehicle visibility, the positioning and effectiveness of tail and hazard lights on all vehicles must be assessed, especially after the fitting or reconstruction of vehicle load bodies. If required, lights must be fitted at an elevated height on LDVs, minibuses, midibuses, buses, tractors, and all vehicles fitted with canopies to ensure effective warning capabilities.
- h) Any changes or modifications to vehicles must follow a management of change process.

- i) Equipotential earth footplates shall be provided to all vehicles used in the construction and maintenance of the electricity network fitted with machinery that can encroach on the safety clearance of overhead lines as per document 34-445.
- j) Where possible, factory-fitted driver and passenger safety belts.

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
B Dames	Chief Executive
E Johnson	Chief Officer (Networks and Customer Service)
T Govender	Acting Chief Officer (Generation Business) and Divisional Executive (Generation Division)
D L Marokane	Chief Commercial Officer, Acting Chief Officer (Eskom Enterprise Pty Ltd) and Divisional Executive (Primary Energy Division)
PS O'Flaherty	Finance Director
BE Bulunga	Divisional Executive (Human Resources Division)
MM Ntsokolo	Divisional Executive (Transmission Division)
Dr SJ Lennon	Divisional Executive (Corporate Services Division)
A Noah	Divisional Executive (Distribution Division) and Acting Divisional Executive (Special Project 2010)
K Steyn	Acting Divisional Executive (Enterprises Division)
K Lakmeharan	Divisional Executive (System Operations and Planning Division)
CAK Choeu	Divisional Executive (Corporate Affairs)
C le Roux	Senior General Manager (Nuclear)
A Etzinger	Senior General Manager (Integrated Demand Management)
M M Koko	Senior General Manager (Generation Business Engineering)
L Carlo	Chief Operating Officer (EE Pty Ltd)
I du Plessis	Senior General Manager (Strategy and Planning)
M Adam	Corporate Counsel/Senior General Manager (Regulation and Governance Unit)
C Henry	Senior General Manager (Treasury)

5. REVISIONS

Date	Rev.	Compiler	Remarks
May 2010	1	PR Raophala	Revision of an existing document.

6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

Name	Division represented
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Eddie Ndou	Corporate Services Division (C-OHS)
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Ockert Swanepoel	Generation
Richard van Zyl	Enterprise
Buks de Klerk	Transmission
Freddy Matotoka	Transmission
Phlip Bezuidenhout	Distribution
Elmarie Herbst	Distribution
Melissa Bhagwanth	Primary Energy

7. ACKNOWLEDGEMENTS

Roley McIntyre – Generation

SN Middel – Corporate Services Division (C-OHS)

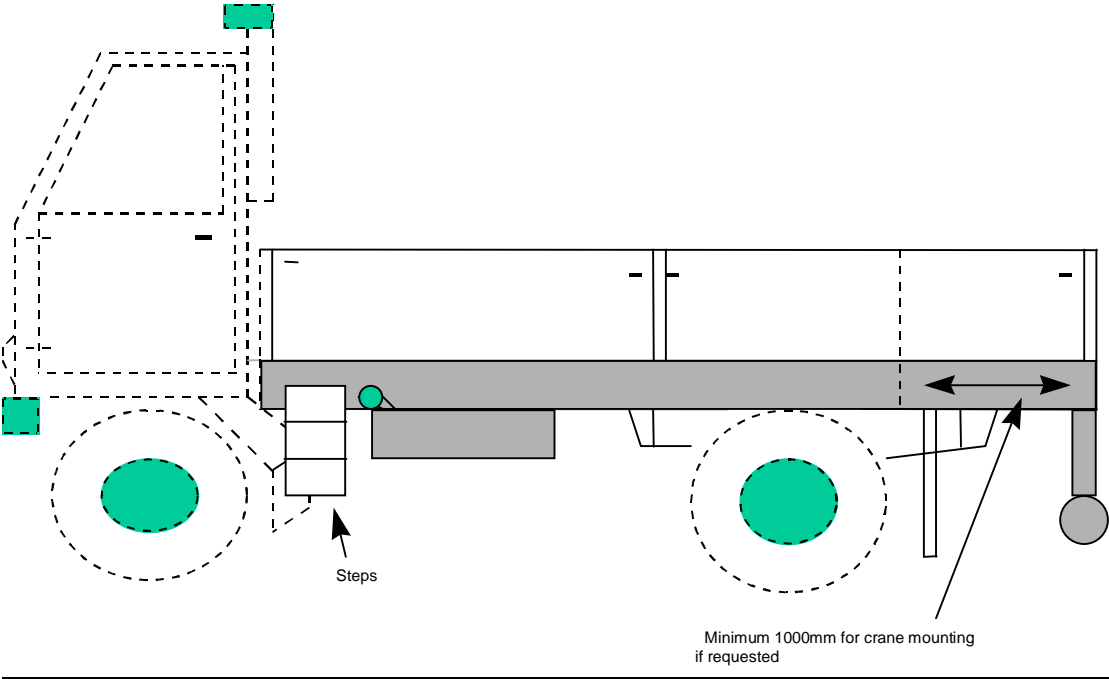
APPENDIX A: CREW CABS GUIDELINE

7 Table of vehicle ancillaries

7.1 Bodies (refer to 5.1)

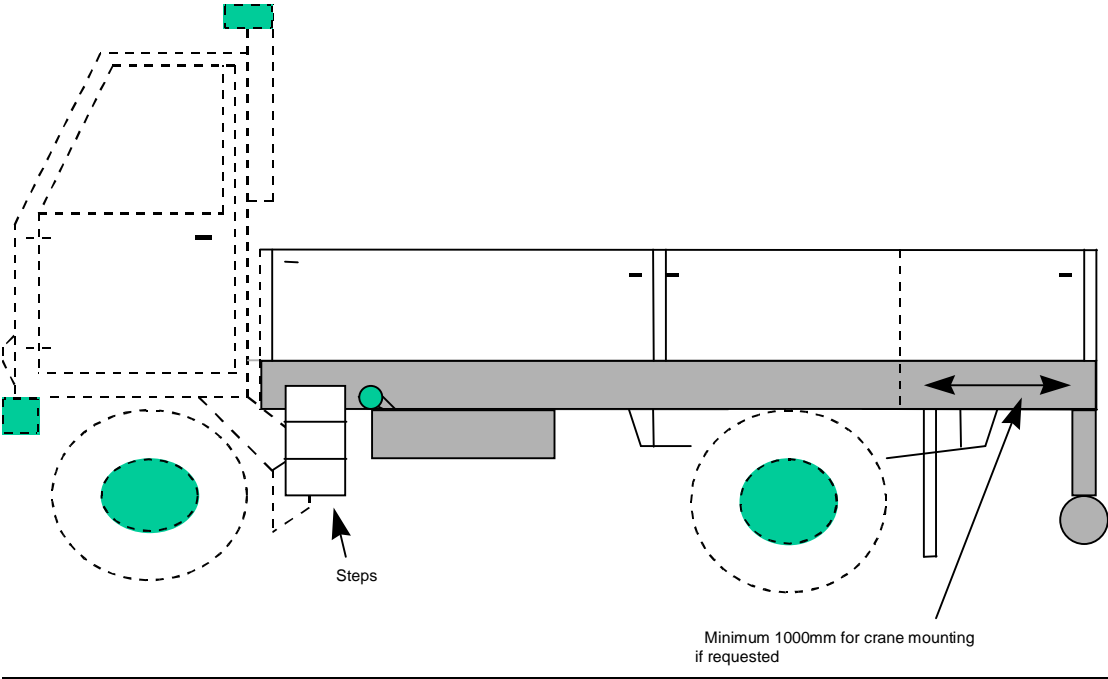
7.1.1 Category TLB 1

Description	Drop side load body
Specification	<p><u>Drop side body</u></p> <p>BODY: to be according to make and model with crane rear- or front-mounted.</p> <p>WIDTH: 2.5 m.</p> <p>DROP SIDES: 450 mm.</p> <p>FLOOR: to be of heavy-duty construction.</p> <p><u>Floor</u></p> <p>Runners to be 200 x 75 mm PF channel, extended with 1.2 m and boxed with a single braze for crane in rear.</p> <p>Cross members to be 76 x 38 mm channels spaced at \pm 365 mm intervals.</p> <p>Side sills to be 100 x 50 mm PF channel.</p> <p>Floor to be 5 mm commercial quality, mild steel plates. All joints to be butt-welded on top of cross member. Six tirfor hooks to be fitted in floor that must be boxed underneath.</p> <p>Drop side doors to be 3 mm commercial quality mild steel with inverted angle supported on top of each drop side door and doors locked with handles.</p> <p>Drop post 175 x 54 mm channel to be in place with a drop pin.</p> <p>Step to be welded underneath floor in centre of crew cab door to gain access into crew cab, and the same step to be fitted at rear of body to gain access into loading area.</p> <p>Crane mounted at rear, tailboard to be exact same spec as headboard.</p> <p>Body steps and grab handle fitted to left side for access to load body.</p> <p>3 x turf locks on each side of load body.</p> <p>Side and rear retro-reflective material to be fitted to vehicles and load body. (Road Traffic Act and Regulations No. 192A)</p>



7.1.2 Category TLB 2

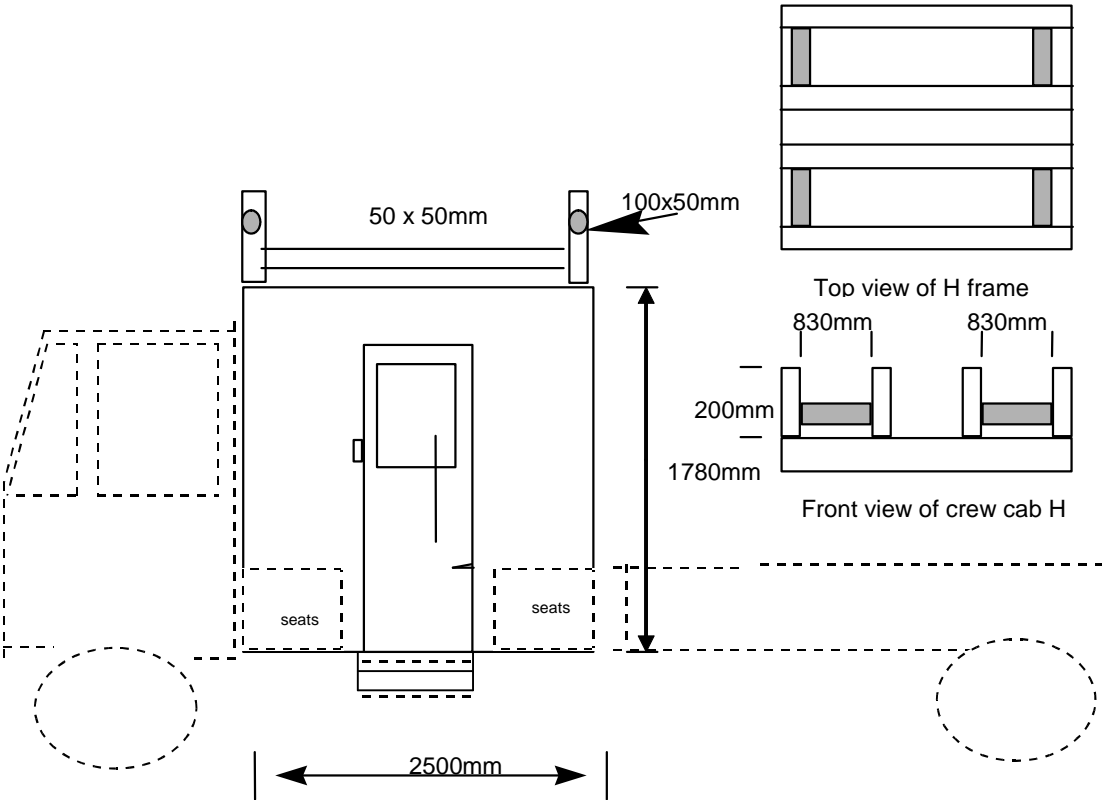
Description	Drop side load body
Specification	<u>Drop side body with removable crew cab</u>
	<p>BODY: to be 5 m long with crane rear-mounted.</p> <p>WIDTH: 2.5 m.</p> <p>DROP SIDES: 450 mm.</p> <p>FLOOR: to be of heavy-duty construction.</p> <p><u>Floor</u></p> <p>Two single container twist locks to be welded in floor. One in right-hand front corner and one on opposite left-hand rear corner to lock crew cab in place.</p> <p>Left-hand front drop side to be removable to facilitate access into crew cab.</p> <p>Runners to be 200 x 75 mm PF channel, extended with 1.2 m and boxed with a single braze for crane in rear.</p> <p>Cross members to be 76 x 38 mm channels spaced at ± 365 mm intervals.</p> <p>Side sills to be 100 x 50 mm PF channel.</p> <p>Floor to be 5 mm commercial quality, mild steel plates. All joints to be butt-welded on top of cross member. Six turf lock hooks to be fitted in floor that must be boxed underneath.</p> <p>Drop side doors to be 3 mm commercial quality mild steel with inverted angle supported on top of each drop side door and doors locked with handles.</p> <p>Drop post 175 x 54 mm channel to be in place with a drop pin.</p> <p>Step to be welded underneath floor in centre of crew cab door to gain access into crew cab, and the same step to be fitted at rear of body to gain access into loading area.</p> <p>Crane mounted at rear, tailboard to be exact same spec as headboard.</p> <p>3 x turf locks on each side of load body.</p> <p>Side and rear retro-reflective material to be fitted to vehicles and load body. (Road Traffic Act and Regulations No. 192A)</p>



7.1.3 Category TLB 3

Description	Crew cabin
Specification	<p><u>Fixed crew cab</u></p> <p>Minimum requirements</p> <p>LENGTH: to be 2 500 mm.</p> <p>WIDTH: to be 2 500 mm.</p> <p>HEIGHT: to be 1 780 mm total height.</p> <p>Securely mounted to vehicle chassis behind vehicle cab with built-in roll cage designed in such a manner as to withstand being crushed in a rollover incident; roof and sides to be suitably insulated.</p> <p>Mainframe to be manufactured by 100 x 50 x 3.5 mm rectangle tubing.</p> <p>Mainframe to be clad with 1 mm cromodeck on in- and outside.</p> <p>Roof of crew cab to be clad with 3 over 4 mm aluminium fastrap sheet and adequate to walk on.</p> <p>50 mm high-density polystyrene between two layers of cromodeck.</p> <p>Two fixed windows of 900 x 500 to be fitted in front panel facing the cab. Front window to act as emergency exit.</p> <p>Two sliding windows of 900 x 500 to be fitted in rear panel.</p> <p>One sliding window of \pm 900 x 600 to be fitted on right-hand side window to act as emergency exit.</p> <p>Door window as large as practically possible and to slide open with lockable catches; window to act as emergency exit.</p> <p>Crew cab to have single side door 900 mm wide on left-hand side.</p> <p>With a slam lock accessible when a person is standing next to vehicle.</p> <p>Inside of canopy to be finished with light oak wall panelling.</p> <p>Floor of crew cab to be 3 mm rubber coated.</p> <p>Secure seating with lockable storage area below, with padded seat and backrests.</p> <p>Two tool boxes 400 mm high and 400 mm wide by 2 m long to be fitted against front and rear panel of crew cab.</p> <p>Front panel of tool boxes to be able to fold down for access into tool boxes, and the lid must be divided into two sections.</p> <p>SABS-approved seatbelts securely fitted (four-point seatbelts).</p> <p>Door must be lockable and must be able to open from inside and outside.</p> <p>12 V or 24 V low-energy florescent light to be fitted inside crew cab.</p> <p>Push button to activate warning buzzer in driver's cab to be fitted in roof,</p>

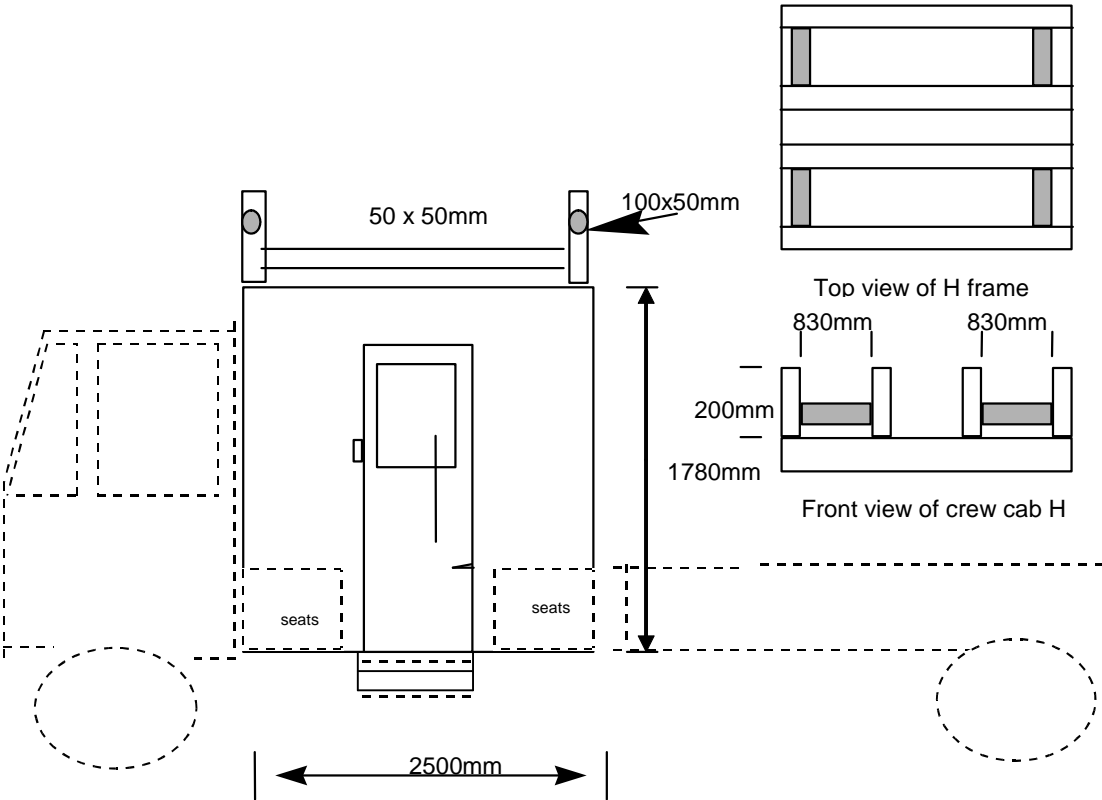
	<p>clearly marked warning buzzer.</p> <p>Access steps on left side with grab handles to facilitate entry and exit fitted with fire extinguisher.</p> <p>Single or double H-frame to be incorporated onto roof of crew cab with tie-down straps.</p> <p>Expanded metal catwalk to access H-frame.</p> <p>Colour white.</p>
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7.1.4 Category TLB 4

Description	Crew cabin
Specification	<p><u>Removable crew cab</u></p> <p>Minimum requirements</p> <p>LENGTH: to be 2 500 mm.</p> <p>WIDTH: to be 2 500 mm.</p> <p>HEIGHT: to be 1 780 mm total height.</p> <p>Securely mounted to vehicle chassis behind vehicle cab with built-in roll cage designed in such a manner as to withstand being crushed in a rollover incident; roof and sides to be suitably insulated.</p> <p>Two single container twist locks to be welded in floor. One in right-hand front corner and one on opposite left-hand rear corner to lock crew cab in place.</p> <p>Left-hand front drop side to be removable to facilitate access into crew cab.</p> <p>Mainframe to be manufactured by 100 x 50 x 3.5 mm rectangle tubing.</p> <p>Mainframe to be clad with 1 mm cromodeck on in- and outside.</p> <p>Roof of crew cab to be clad with 3 over 4 mm aluminium fastrap sheet and adequate to walk on.</p> <p>50 mm high-density polystyrene between two layers of cromodeck.</p> <p>Two fixed windows of 900 x 500 to be fitted in front panel facing the cab. Front window to act as emergency exit.</p> <p>Two sliding windows of 900 x 500 to be fitted in rear panel.</p> <p>One sliding window of $\pm 900 \times 600$ to be fitted on right-hand side window to act as emergency exit.</p> <p>Door window as large as practically possible and to slide open with lockable catches; window to act as emergency exit.</p> <p>Crew cab to have single side door 900 mm wide on left-hand side.</p> <p>With a slam lock accessible when a person is standing next to vehicle.</p> <p>Inside of canopy to be finished with light oak wall panelling.</p> <p>Floor of crew cab to be 3 mm rubber coated.</p> <p>Secure seating with lockable storage area below, with padded seat and backrests.</p> <p>Two tool boxes 400 mm high and 400 mm wide by 2 m long to be fitted against front and rear panel of crew cab.</p> <p>Front panel of tool boxes to be able to fold down for access into tool boxes, and the lid must be divided into two sections.</p> <p>SABS-approved seatbelts securely fitted (four-point seatbelts).</p>

	<p>Door must be lockable and must be able to open from inside and outside.</p> <p>12 V or 24 V low-energy florescent light to be fitted inside crew cab.</p> <p>Push button to activate warning buzzer in driver's cab to be fitted in roof, clearly marked warning buzzer.</p> <p>Access steps on left side with grab handles to facilitate entry and exit fitted with fire extinguisher.</p> <p>Single or double H-frame to be incorporated onto roof of crew cab with tie-down straps.</p> <p>Expanded metal catwalk to access H-frame.</p> <p>Colour white.</p>
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7.1.5 Category TLB 5

Description	Cargo van body with crew cab
Specification	<p>Height, width, and length to suit vehicle dimensions.</p> <p>Roll-up door at rear with cam lock.</p> <p>Roll-up door left side with cam lock.</p> <p>Integral crew cabin at front with left-hand side opening door with opening windows either side.</p> <p>Rubberised floor.</p> <p>Access steps with crab handle.</p> <p>Seats with lockable storage area underneath.</p> <p>SABS-approved seatbelts.</p> <p>Interior light with switch.</p> <p>Activator button in crew cab with audible buzzer in truck cab fitted with fire extinguisher.</p> <p>Recessed steps left side to gain access to roof carrier.</p>

