

SPECIFICATION RT57-03-01-09

4 TON AREAL PLATFORM TRUCK SINGLE CAB AND/OR CREW CAB - Cherry Picker

Introduction

The conversion shall be done on a platform truck with a payload of 4ton, the chassis should be able to accommodate a load body length of not less than 5,500mm.

A. General Specifications

1. Compliance

The Cherry Picker Truck should comply with the Health and Safety Act, the Road Traffic Act as well as any other relevant act or regulation.

Road Safety Act (Yes/No)

Traffic Safety Act (Yes/No)

Health and Safety Act (Yes/No)

Other Regulations/Acts: _____

2. The Truck must have at least 4 Stabilizer Outriggers

Number of Outriggers _____

3. Safety

The unit must comply with all the applicable safety regulations. Thus it must have an Emergency Lowering System and Backup Power System.

Emergency Lowering System (Yes/No)

Backup Power System (Yes/No)

The Bucket maximum load should be no less than 250kg

Maximum Bucket Load _____ kg

B. Operational Specification

1. Operational Height

The unit must have a height of 12m. Maximum outreach should be at least 6m at a working height of 8m.

Maximum working height from:

Vehicle Deck to Bucket floor _____ mm

Ground to Bucket Floor _____ mm

Ground to bucket floor at maximum outreach _____ mm

Maximum Sideway outreach _____ mm

2. Travel Mode

The unit should be folded during travel. When folded, the cherry picker should not exceed a height of 2.5m above the deck. The bucket's resting position should be directly above the truck's deck, and should not overhang outside the bounds of the truck body.

Height above deck in travel mode _____ mm

Height above ground in Travel mode _____ mm

Maximum truck length during travel _____ mm

3. Working loads

The bucket should have a safe working load of at least 250kg. Placement of the cherry picker should be such that the weight is optimally distributed according to the chassis cab manufacture weight limitations on the axles.

Safe working load in Bucket _____ kg

Optimal load distribution on axles (Yes/No)

C. Component specifications

1. **Bucket**

The bucket fitted to the unit must be able to accommodate 2 people and their operational activities. The bucket must be Non-Insulated. It should also have a side entrance for ease of access. It should also house controls for the drive/control system.

Bucket dimensions: _____ x _____ mm

Bucket construction Material: _____

Details of Boom Mounting: _____

2. **Boom Sticks**

Two Hydraulic Booms (Jacks) must be used to operate the unit. Piston cylinders should be of low maintenance and susceptible to minimal corrosion.

Type of Booms (Jacks) _____

Manufacturer _____

Boom 1: _____

Length _____ mm

Boom 2: _____

Length _____ mm

Boom details: _____

3. **Swing and elevation drive**

The swing elevation should be hydraulically driven and powered by an auxiliary diesel engine. The swing angle should be 360°. The maximum elevation speed should not exceed 0.5m/s. The maximum rotational speed at maximum outreach should not be lower than 0.1m/s and not exceed 0.5m/s

Both Clockwise and Anti-clockwise swing (Yes/No) _____ °

Maximum Rotational Angle _____ °

Maximum Rotational Speed _____ m/s

Maximum Elevation Speed _____ m/s

Details of Drive (include Drive Housing, Bearings, Gearbox etc.): _____

4. **Drive Engine**

The complete hydraulic system must be driven by a Self-Start Diesel Engine. It should power all hydraulic functions of the unit including the stabilizers.

Manufacturer _____

Type _____

Maximum Power Output _____ kW

Details of drive engine: _____

5. **Stabilizer legs**

The Cherry Picker Truck should be fitted with at least **four (4)** stabilizer outriggers. The outriggers should be individually adjusted/positioned. Placement/positioning of the outriggers should be such that maximum stability is attained at any operational position.

Number of Stabilizer legs _____

Individual Adjustment (Yes/No) _____

6. Controllers

The unit should be fitted with 2 proportional controllers for its operation. 1 controller should be fitted in the bucket and the other at the bottom. The controllers should be able to over-ride each other in operation. The controllers should also utilise a dead-man's switch for operation.

Manual over-ride _____ (Yes/No)

Dead-man's switch _____ (Yes/No)

Controller Details: _____

7. Filters

Spin-on type filters should be fitted to the hydraulic system. The filtration system should be sufficient for the operation of the hydraulic system.

Details of Filters: _____

8. Bearings

The unit should be preferably fitted with maintenance-free bearings. They must be able to carry maximum dynamic loading with limited wear.

Type _____

Maximum Load Capacity _____ kg

Bearing Details: _____

9. Hinge pins

Stainless Steel pins must be used. This is to avoid rusting of the pins under wet conditions.

Stainless Steel pins used _____ (Yes/No)

10. Hydraulics

The hydraulic system is driven by the auxiliary engine and the reservoir must be large enough to prevent the oil from overheating.

Oil Type _____

Maximum Pressure _____ kPa

Oil Capacity _____ L

Details: _____

D. Truck Deck

1. Crew cab (To be offered as an option)

A crew cab should be fitted behind the cabin of the truck and offered as an option with the single cab truck. The cab must be SABS tested and approved. It should also adhere to the Health and Safety Act, the Road Traffic Act and any other relevant regulation.

Cab Adheres to all Acts and Regulations _____ (Yes/No)

Other Relevant Regulations/Acts: _____

The cab should be at least 1.5m high. The maximum width of the cab is dependent on the Chassis cab's width.

Cab Dimensions

Length _____ mm

Width _____ mm

Height _____ mm

Material _____

The following is a list of specifications the cab should conform to.

Cab specification	Available (Yes/No)
Accommodate 4 passengers	
Be fitted with 4 individual seats	
Seats be fitted with lap belts	
Windows and vents	
1 entrance door	
Small fire extinguisher	
Means of communication to truck driver	
Lockable entrance door on the left side	
Storage space/box under seats	
Fitted with Roll-Over Protection (NRCS)	
Emergency Exit Sign	
Lights	

Emergency Exit

The cab should have an emergency exit with minimum dimensions of 700mm x 500mm. An emergency sign should also be present.

Emergency Exit fitted (Yes/No)

Details of Emergency Exit: _____

Optional extras

2. Traffic Cones

Provision must be made for the storage of ten traffic cones

Details: _____

3 Stairs

Standard stairs should be fitted onto the side of the truck for ease of access to the deck. The stairs should not be less than 600mm wide. Stairs should be enclosed/covered with an access door as an option.

Details: _____

4. Toolboxes

Arrangement of toolboxes should be designed in conjunction to the configuration of the deck. The toolboxes should be fitted on both sides and the rear. All vertical or side hanging toolboxes should be fitted with two doors with side hinges. Each vehicle must use 1 key for all toolboxes on it. One toolbox should be fitted in the crew cab as mentioned above. This toolbox must open on top; thus provision has to be made for this function as it is directly involved with the design of the crew cab seats. Final layout and design of toolboxes to be finalized with the end user.

Details: _____

5. Gas Mounting

Rings with a secure locking mechanism to mount a 19kg gas cylinder should be fitted next to the stairs leading onto the deck

Details: _____

6. Pipe Link Stick

Mount a 120mm pipe with a lid and lock. It should be fitted behind the crew cab and run across the entire vehicle width. The height should be at deck level.

Details: _____
