

SUPPLY AND DELIVERY OF 15.7 m ARTICULATED BOOM LIFT (CHERRY PICKER).

**DURBAN MAIN CENTRE, 311 SOLOMON
MAHLANGU DRIVE, ROSSBURGH.**

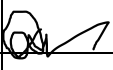
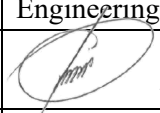
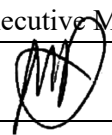
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Supply, transport, deliver, offload, inspect, test, commission, document and hand over one (1) new 15.7 m articulated boom lift (cherry picker)

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Supply, transport, deliver, offload, inspect, test, commission, document and hand over one (1)
new 15.7 m articulated boom lift (cherry picker)

1. INTRODUCTION AND SCOPE

The scope of this project involves the appointment of a competent supplier to supply, transport, deliver, offload, inspect, test, commission, document and hand over one (1) new 15.7 m articulated boom lift (cherry picker) for use at Transnet Engineering Durban Main Centre. The supplier shall also provide operator training and maintenance familiarisation for ten (10) Transnet Engineering employees.

1.1 Task Alignment and Minimum Deliverables

	Task	Required	Minimum Output	Acceptance Evidence
R001	Supply	Yes	Supply one (1) new, unused and compliant 15.7 m articulated boom lift complete with standard OEM equipment and accessories.	OEM datasheet, conformity documentation and receiving inspection.
R002	Transportation	Yes	Transport the machine to Transnet Engineering Durban Main Centre without damage.	Delivery/transport record.
R003	Delivery / Offloading	Yes	Deliver, safely offload and position the machine at the designated location.	Signed delivery note and receiving confirmation.
R004	Inspection / PDI	Yes	Complete pre-delivery and receiving inspections confirming configuration, condition and readiness for commissioning.	Signed PDI and inspection checklist.
R005	Testing	Yes	Conduct functional, safety, rated load/stability by a MEWP Lifting Machinery Inspector (LMI) and other applicable tests in accordance with the specification, OEM requirements and applicable standards.	Signed test records and applicable certificates.
R006	Commissioning	Yes	Commission the machine and demonstrate correct operation of all operating and safety functions.	Signed commissioning report.
R007	Training	Yes - 10 persons	Provide operator training and maintenance familiarisation using the actual machine supplied.	Attendance register, training material and certificates/records.
R008	Documentation	Yes	Submit the required OEM, operation, maintenance, safety, compliance, training and handover documentation.	Approved Handover File: 3 hard copies and 1 searchable PDF copy.
R009	Handover	Yes	Rectify identified defects and formally hand over the commissioned machine to Transnet Engineering.	Signed SAT/final acceptance and written handover.

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1.2 Scope Control

The Activity/Pricing Schedule is the commercial quantity and pricing control document. The supplier shall price and execute the scope stated therein together with this specification. Standard OEM documentation, training material and normal handover documentation shall be included in the relevant supply/training obligations and shall not be duplicated as separate priced items unless expressly identified in the Activity/Pricing Schedule. Where transportation/delivery is separately priced, it shall not also be included as a duplicate charge in the machine supply item.

- Supply of one (1) new articulated boom lift meeting this specification.
- Transportation, delivery, offloading and positioning at Durban Main Centre.
- Pre-delivery inspection, testing, commissioning and site acceptance.
- Operator training and maintenance familiarisation for ten (10) Transnet Engineering employees.
- Submission of the required OEM, safety, compliance, maintenance, training and handover documentation.

2. TECHNICAL REQUIREMENTS AND APPLICABLE STANDARDS

The Contractor shall comply with the latest applicable editions of South African legislation, regulations, standards and recognised international standards relevant to mobile elevating work platforms (MEWPs). Where requirements overlap, the more stringent legally applicable requirement shall apply.

- Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended, and applicable Regulations.
- Driven Machinery Regulations
- SANS 18893 - Mobile Elevating Work Platforms - Safety Principles, Inspection, Maintenance and Operation.
- SANS 16368 - Mobile Elevating Work Platforms - Design Calculations, Stability Criteria and Safety.
- SANS 347 Conformity Assessment Requirements.
- SAQA Unit Standard 243272: Operate a Mobile Elevating Work Platform (MEWP)
- SANS 164-1 plug and socket
- Applicable manufacturer/OEM requirements for inspection, testing, commissioning, maintenance and safe operation.

3. SPECIFIC REQUIREMENTS

3.1 Scope of Supply

Supply one (1) new, battery-powered, self-propelled 15.7 m articulated boom lift suitable for indoor and outdoor heavy industrial use. The supply price shall include all standard OEM equipment, safety devices, manuals, certificates, accessories and documentation necessary for safe operation and handover. Transportation/delivery may be separately priced in the Activity Schedule where required but shall not be duplicated in the machine supply price.

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3.2 Minimum Machine Requirements

3.2.1 Working Envelope

The Mobile Elevating Work Platform (MEWP) offered shall provide a working envelope with the following requirements:

- a) A maximum working height of not less than **15.7 m**.
- b) A maximum platform height of not less than **13.7 m**.
- c) A horizontal outreach of not less than **7.2 m**.
- d) An up-and-over clearance of not less than **7.7 m**.
- e) The MEWP shall be fitted with a personnel platform having minimum internal dimensions of **1.52 m (length) × 0.76 m (width)** and shall provide a minimum safe working load of **227 kg**. The platform shall accommodate a minimum of two persons with tools and equipment. The platform shall further incorporate:
 - Guardrails with a minimum height of **1.10 m** above platform floor level.
 - Mid-rails and toe boards in accordance with applicable MEWP safety standards.
 - A minimum platform depth/overall basket height of **1.10 m**.
 - Self-closing access gate.
 - Non-slip floor surface.
 - Hydraulic platform rotation of not less than **180°**.
- f) A turntable swing of at least **360°**.
- g) A jib articulation range of at least **140°**.

3.2.2 Machine Dimensions

Parameter	Recommended Requirement
Overall Width	Maximum 1.80 m
Overall Height Stowed	Maximum 2.10 m
Overall Length	Maximum 6.50 m
Tail Swing	Zero Tail Swing
Ground Clearance	Minimum 200 mm

3.2.3 Mobility and Performance

Parameter	Minimum Requirement
Gradeability	$\geq 30\%$
Travel Speed Stowed	≥ 5 km/h
Turning Radius	Suitable for indoor workshop operation
Drive Configuration	Electric Traction Drive
Control System	Proportional Multi-function Controls
Emergency Descent	Ground and Platform Controls

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3.2.4 Power System

Parameter	Requirement
Drive Type	Battery Electric
System Voltage	48 VDC
Charger	Integrated Automatic Charger
Charging Input	230V AC, 50Hz with a Standard South African 3-Pin Plug (SANS 164-1 Type M)
Battery Type	Deep Cycle Industrial Batteries
Duty Cycle	Minimum Full Shift Operation

3.3 Functional and Safety Requirements

- Suitable for indoor and outdoor operation, including heavy industrial workshop environments.
- Capable of operating on smooth concrete floors and paved external surfaces.
- Proportional electro-hydraulic controls for smooth and precise boom and drive movements.
- Tamper-resistant analogue or digital operating-hour meter.
- Automatic battery condition indicator visible to the operator.
- Automatic traction control or equivalent drive traction management system.
- Automatic parking brake that engages when the machine is stationary.
- Tilt sensing with audible and visual alarms and prevention of unsafe operation outside OEM limits.
- Emergency lowering system operable from platform and ground controls.
- Emergency stop switches at platform and ground control stations.
- Overload sensing/protection system.
- Hydraulic hose burst protection.
- Audible motion alarm and horn.
- Battery isolation switch.
- Platform anti-entrapment protection where available as an OEM feature.
- All standard OEM guards, safety devices, decals, warning labels and accessories required for safe operation.

3.4 Delivery, Offloading and Pre-Delivery Inspection

The supplier shall transport, deliver, safely offload and position the machine at the designated Transnet Engineering location. Suitable transport equipment, lifting/offloading equipment and competent personnel shall be provided. Before handover, the supplier shall complete a pre-delivery inspection (PDI) confirming that the machine is undamaged, correctly assembled, compliant with the offered configuration and ready for commissioning.

Delivery activities shall be planned and executed in accordance with applicable legislation, site requirements and OEM instructions. Detailed logistics requirements shall not be duplicated across separate deliverables.

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3.5 Testing, Commissioning and Handover

Following delivery, the supplier shall test and commission the machine in the presence of Transnet Engineering representatives. Testing shall be performed in accordance with the applicable legislation, SANS 18893, relevant OEM procedures and other applicable standards for the offered machine.

- Visual inspection and verification of machine configuration and condition.
- Functional testing of boom movements, steering, braking, drive, platform controls and ground controls.
- Verification of emergency lowering, emergency stop, alarms, limit functions, overload protection and tilt protection.
- Verification of hydraulic system and battery/charging system.
- Stability and rated-load verification in accordance with applicable OEM and standard requirements.
- The inspection and load test must be conducted by a registered Lifting Machinery Inspector (LMI) accredited with the scope for MEWP.
- The platform is tested at its Safe Working Load (SWL) or rated capacity specified by the OEM.
- Demonstration of all operating modes and safety functions.
- Rectification of defects identified during inspection or testing.
- Submission of signed PDI, commissioning and Site Acceptance Test (SAT) records.

Final acceptance is subject to successful commissioning and SAT, completion of the required training, submission of the complete Handover File, rectification of identified defects and written acceptance by the Transnet Engineering Project Manager.

3.6 Training Requirements

The Supplier shall provide training for five (5) designated Transnet Engineering employees using the actual machine supplied. Training shall be conducted as two separate and distinct training programmes, namely Operator Training and Maintenance Familiarisation Training.

For pricing and evaluation purposes:

Activity Schedule Item 4 shall cover Operator Training only.

Activity Schedule Item 5 shall cover Maintenance Familiarisation Training only

3.6.1 Operator Training

- Machine controls, operating limitations and safe operating practices.
- Pre-start and daily inspections.
- Safe work-at-height practices relevant to machine operation.
- Emergency stop and emergency lowering procedures.
- Safety devices, alarms, tilt and overload protection.
- Battery charging, normal shutdown and securing of the machine.

3.6.2 Maintenance Familiarisation

- Preventative maintenance and OEM maintenance intervals.
- Routine servicing and inspection requirements.
- Battery and charging-system maintenance.

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- Hydraulic system overview.
- Provide maintenance -level access to the machine control system to Transnet Engineering.
- Safety-device inspection and emergency-system maintenance requirements.

Training material is part of the training and handover obligation and shall not be treated as a separate additional priced item.

3.7 Documentation and Handover File

The Supplier shall provide three (3) hard copies and one (1) searchable PDF copy of documentation applicable to the actual machine supplied. Standard OEM documentation and certificates supplied with the machine shall be deemed included in the machine supply price and shall not be separately priced unless the Activity Schedule expressly identifies a non-standard deliverable.

General and Maintenance Documentation

- Operation/Operator Manual
- Maintenance and Workshop/Service Manual
- Illustrated Parts Catalogue with OEM part numbers
- Preventative Maintenance Schedule
- Lubrication Schedule
- Recommended consumables and critical spare parts list (2-year requirement)
- Machine technical specifications and equipment data sheets

Mechanical/Electrical/Control Documentation (as applicable to OEM machine)

- General arrangement and relevant assembly information
- Hydraulic circuit diagrams, component information and pressure settings
- Electrical schematics and wiring diagrams
- Battery and charger documentation
- Diagnostic fault-code information
- Calibration/configuration procedures and software version/recovery information where applicable

Safety, Compliance and Acceptance Documentation

- OEM Certificate of Conformity
- Applicable load/rated-capacity and stability test evidence
- Pre-Delivery Inspection report
- Commissioning Certificate/Report
- Site Acceptance Test report
- Inspection checklists
- Emergency rescue/lowering instructions
- Calibration certificates where applicable

Training and Asset Management Documentation

- Attendance register and training certificates
- Maintenance familiarisation material and troubleshooting guide

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- Equipment nameplate/machine identification information
- Service logbook
- Recommended daily, weekly, monthly and annual inspection checklists
- Provide Operator Training manuals
- Provide Maintenance Manuals
- The Operator Manual and Maintenance/Service Manual shall be supplied as two (2) separate and distinct documents. The Operator Manual shall be intended for machine operators and safe operation of the equipment, while the Maintenance/Service Manual shall contain detailed maintenance, inspection, troubleshooting, diagnostic, repair, adjustment, and workshop procedures for maintenance personnel. Combined manuals or multi-purpose publications shall not be accepted unless separate dedicated sections are provided and clearly identified for each function.

3.8 Spare Parts Requirements

The supplier shall provide a recommended spare parts list covering a minimum of two (2) years of normal operation and shall guarantee the availability of genuine OEM spare parts. Local support shall be capable of supplying normal replacement components within seven (7) working days, subject to OEM availability and agreed logistics.

3.9 Warranty

The machine shall carry a comprehensive OEM warranty of not less than twenty-four (24) months from successful commissioning and final acceptance. The warranty shall cover labour, travelling, replacement parts, software updates where applicable, technical support and other costs necessary to rectify manufacturing defects or equipment failures arising under normal operating conditions.

Warranty breakdowns shall be acknowledged/responded to within forty-eight (48) hours of notification, with restoration within a mutually agreed period. A replacement component shall carry the balance of the original warranty or twenty-four (24) months from replacement, whichever is longer.

3.10 After-Sales Support

The supplier shall maintain established after-sales support within South Africa, including:

- Technical telephone support and on-site technical support.
- Preventative maintenance and breakdown support.
- OEM spare parts support.
- Service bulletins and software updates where applicable.
- Access to competent technical personnel and suitable service/workshop capability.

4. OTHER INFORMATION RELATED TO THE SCOPE

4.1 Matters requiring a Transnet Engineering decision shall be referred to the appointed Project Manager.

4.2 Offers shall clearly identify the make, model and configuration offered and shall be completed against this specification.

4.3 The bidder shall provide an OEM technical datasheet/brochure sufficient to verify compliance with the minimum machine requirements.

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5. HEALTH, SAFETY AND ENVIRONMENTAL REQUIREMENTS

All activities and equipment shall comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993), applicable Regulations, applicable standards identified in Section 2, local authority requirements where applicable, Transnet site requirements and OEM instructions.

The supplier remains responsible for safe transportation, offloading, testing, commissioning and training. Risk assessments, lifting/offloading arrangements, competent personnel, PPE, emergency arrangements and environmental controls shall be provided to the extent required by the applicable legislation, standards, site rules and the work actually performed. The specification does not prescribe unnecessary duplicate methods where an applicable legal or technical standard already establishes the requirement.

6. GENERAL AND OPERATING CONDITIONS

6.1 Transnet Engineering may verify the supplier/OEM service and support capability where this is necessary to confirm the tendered support arrangement.

6.2 The tenderer shall guarantee that the offered machine ratings and capacities are adequate for the specified duty.

6.3 Operating conditions:

Condition	Requirement
Altitude	Sea level
Ambient temperature	0 °C to 45 °C
Relative humidity	50% to 100%
Atmosphere	Heavy saline
Operating environment	Indoor and outdoor industrial/workshop environment

7. DEFINITIONS AND ABBREVIATIONS

Term	Definition
CLIENT	Transnet Engineering, Durban Main Centre
PROJECT MANAGER / TECHNICAL OFFICER	Appointed Transnet Engineering representative responsible for the project
CONTRACTOR / SUPPLIER	Tenderer appointed to supply the equipment under this specification
MEWP	Mobile Elevating Work Platform
OEM	Original Equipment Manufacturer
PDI	Pre-Delivery Inspection
SAT	Site Acceptance Testing
LMI	Lifting Machinery Inspector

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