



PROVISION FOR WORKSHOP STEEL AIRLINES AND PNEUMATIC REPAIRS AT MHA FOR TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS RICHARDS BAY (HEREINAFTER REFERRED TO AS "TPT RCB")

# **SCOPE OF WORK**

PROVISION FOR WORKSHOP STEEL AIRLINES, PNEUMATIC AIR PUMPS AND TYRE INFLATORS REPAIRS AND AT MHA FOR TRANSNET SOC LTD TERMINALS RICHARDS BAY (TPT RCB)



**Figure 1: Transnet Cover Theme** 





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**Table 1: List of Abbreviations** 

Abbreviation	Meaning given to the abbreviation
AIA	Authorised Inspection Authority
BBBEE	Broad Based Black Economic Empowerment
QA	Quality Assurance
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIP	Site Induction Programme
SMP	Safety Management Plan
SSRC	Site Safety Review Committee
TPT	Transnet Port Terminal
KZN	Kwa-Zulu Natal
ECSA	Engineering Council of South Africa
RCB	Richards Bay
PPE	Personal Protective Equipment
OEM	Original Equipment Manufacturer
COF	Certificates of Fitness
TNPA	Transnet National Port Authority
TRCB	Transnet Richards Bay (TPT & TNPA)
sqm	Square meter
DBT	Dry Bulk Terminal
MPT	Multi-Purpose Terminal
SOC	State Owned Company





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**Table 2: List of Abbreviations continued** 

Abbreviation	Meaning given to the abbreviation
AIA	Authorised Inspection Authority
B-BBEE	Broad Based Black Economic Empowerment
CEMP	Construction Environmental Management Plan
CD	Compact Disc
CDS	Contractor Documentation Schedule
COC	Certificate of Compliance
CSHEO	Contractor's Safety, Health and Environmental Officer
СМ	Construction Manager
DTI	Department of Trade and Industry
EO	Environmental Officer
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
HVAC	Heating Ventilation and Air Conditioning
IR	Industrial Relations
IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	Contractor's Industrial Relations Practitioner
Native	Original electronic file format of documentation
NHBRC	National Home Builder Registration Council
PES	Project Environmental Specifications
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
PrEng	Professional Engineer
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
reefer	Refrigerated unit
SANS	South African National Standards
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SMP	Safety Management Plan
SSRC	Site Safety Review Committee
CIDB	Construction Industry Development Board





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## 2 Overview of the work

#### 2.1 Executive Overview

Transnet Port Terminals is a division of Transnet SOC Limited whose core business is to provide cargo handling to a wide spectrum of customers, including shipping lines, freight forwarders and cargo owners. Operations are divided into five major business segments, namely containers, bulk, break bulk, automotive and national port authority. All divisions operating under one umbrella, Richards Bay is one of Transnet Bulk and Break Bulk handling terminal divided into two namely, DBT and MPT. BDT comprise of conveyor belts, ship loaders, ship unloaders, stackers and conveyor belt systems infrastructure for import, export and stacking of bulk commodities like coal, chloride, magnetite, and Sulphur to list few. MPT handles a mixer of commodities with the use of road truck transport, skips, forklifts, mobile ship loader cranes, ship unloader mobile cranes, straddlers and many more.

The MHA workshop provides repairs and maintenance service for various machines such as forklifts, reach stackers, mobile cranes, ADTs, front end loaders and sweepers.

During the maintenance and repairs of this equipment in the workshop, the job mostly requires the mechanics to make us of air tools like impact wrenches, air grinders, air drills, pneumatic grease guns etc. It is very essential that there is always pressurized air running along the air pipes throughout the whole workshop so that the job can be easily and safely. The aim of this scope is to bring compressor air pipes to its reliable working condition.

The scope of work requires the contractor to provide:

- Repairing of compressor air pipes
- Painting of workshop steel air pipes
- Repairing of pneumatic air pumps
- Repairing of wall mount digital tyre inflectors
- · Required skills, resources and qualification





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## 3 Detailed Scope of Work

#### 3.1 Repairing Compressor air lines will include:

- 3.1.1 Assembly scaffolding platform OR cherry picker to reach the airlines running against the workshop roof
- 3.1.2 Inspect and test rusted 50 mm diameter steel air pipes for leaks
- 3.1.3 Repair all leaking joining points on the entire air pipes running in the workshop
- 3.1.4 Repair all rusted areas on the entire air pipes running in the workshop
- 3.1.5 Secure all securing points making sure that they are not hanging loose
- 3.1.6 Carry out pressure tests after all air pipes repairs are done

## 3.2 Painting of compressor air lines will include:

- 3.2.1 Cover all areas and air valves that should not catch paint
- 3.2.2 Apply prime all over the entire air pipes to be fitted on the air lines
- 3.2.3 Do spray paint with pail blue as per current painted pipes as the colour code for air lines

## 3.3 Repairing of pneumatic air pumps will include:

- 3.3.1 Remove all 12 pneumatic air pumps from air system
- 3.3.2 Service all 12 pneumatic air pumps to its good working condition
- 3.3.3 Do calibration and issue a calibration certificate valid for 12 months or more

#### 3.4 Repairing of wall mount digital tyre inflator will include:

- 3.4.1 Remove 2 wall mount digital tyre inflator from air system
- 3.4.2 Service all 2 wall mount digital tyre inflator to its good working condition
- 3.4.3 Do calibration and issue a calibration certificate valid for 12 months or more

# 3.5. Required skills, Resources, and Qualifications

- 3.4.1 As a minimum, TPT requires the crew of 3 individuals to be part of the Compressor air pipes repairs. The crew will include:
  - 1 X Air conditioning and refrigeration Technician with below requirement:
    - Valid Trade test certification as Air conditioning and refrigeration Technician
    - CV confirming 2 Years Air conditioning and refrigeration technician experience from date of trade test
  - 1 X Spray painter with below requirement:
    - Valid Trade test OR training competency certificate as spray painter
    - CV confirming 2 Years' spraying experience from date of trade test OR training





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All service providers willing to quote must avail themselves to attend a site meeting on the day that reflects on the tender details. This will assist service providers to understand how exactly to repair rusted air pipes and also give them guidance of the quantities of all different material needed to do repairs.

## **4** General Information

#### 4.1 Contractors' Responsibilities.

The Contractor Shall:

- 4.1.1 Provide all the necessary skills, resources, tools, equipment and experts to carry out the works: as a minimum each team to carry out the repairs or maintenance is to have a trade tested Air-conditioning mechanic / technician.
- 4.1.2 Review, familiarize and understand the proposed site including all constraints and environmental factors
- 4.1.3 Supply complete method statement of new installation as well as any repairs as per above scope of works.
- 4.1.4 Review, familiarize and understand the operational requirements of the facilities in the Port of Richards Bay.
- 4.1.5 Any other reasonable works required to successfully deliver the services to the Employer on time, on budget, at the accepted quality.
- 4.1.6 Provide all necessary SHE compliance documentation as per Transnet Port Terminals SHE specifications, including the submission and approval of a Safety File.
- 4.1.7 Hand over all documentation including condition reports after services, repairs and installations. The bidder will be expected to submit and keep (and make available to Transnet on request) inspection, maintenance, and repair reports for the duration of the contract, and 6 months after the contract term.





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## 5 Health and Safety Requirements

## 5.1 Safety Requirements

The service provider shall take full responsibility for ensuring that his employees and or subservice providers will comply with all relevant safety legislation while performing their functions as required by this SOW (as a minimum this is to include the Transnet's General Health and Safety Requirements and Conditions — RCB TPT SHERQ/RS PRO 033). In particular, the Service provider will:

- 5.1.1 Provide the health and safety statement.
- 5.1.2 Issue suitable PPE to all staff and ensure that they are using it while performing their duties in the terminal:
- 5.1.3 Ensure that alt staff is inducted before performing any duties at TPT:
- 5.1.4 Ensure that all staff and/or sub-service providers that will be performing duties at TPT will undergo mandatory SHEQ Induction training before being allowed to enter the plant and access machines.
- 5.1.5 Ensure that all staff is at all times complying with operational requirements in the plant.
- 5.1.6 Ensure that the respective staff is issued with access permits to ease access into the port in case of after-hours breakdown.

#### 5.2 Safety File requirements

- 5.2.1 Letter of good standing with insurance body or compensation commissioner
- 5.2.2 An organizational safety structure (organogram) stipulating the names of all the persons proposed by the service provider who would hold legal appointments on the project in terms of the Construction Regulation issued in terms of the Occupational Health and safety Act (Act 85 of 1993).
- 5.2.3 The expected roles, responsibilities and authority of those who are proposed to receive legal appointments.
- 5.2.4 The resume(s) of the proposed Safety Officer(s) and his/ their roles, responsibilities and authority.
- 5.2.5 Service providers' Safety, health and environmental policies.
- 5.2.6 Provide an overview of the safety system / program that is used to manage safety, health and environment.
- 5.2.7 Provide an overview of your risk assessment process (methodology) as well as examples of completed assessments.
- 5.2.8 Provide a list of the different job families and categories for the project as well as competency requirements per job category. Also provide a plan regarding how all outstanding competency requirements will be met.





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# 6 Governing Codes, Standards and Specifications

The Service provider's works must be in accordance with the requirements of the latest edition of the national standards (SANS).

In addition to this the workshop needs to comply with the OHS Act 85 of 1993 (Occupational Health and Safety Act and Regulations).

The tests prescribed in the relevant standard specifications shall be carried out at the manufacturer's facilities before delivery. The test results shall be submitted to the Section's Engineering or Technical/ Manager with each supplied / repaired machinery.

Work and Supplied Materials made and tested to alternative standard specifications will be considered at the discretion of the Section's Engineering Manager; provided that such specifications are not less stringent than those laid down.

## 7 <u>Technical Evaluation</u>

#### 7.1 Technical Evaluation Criteria

a) See Annexure for Detailed Technical Evaluation

## 8 Site Information

#### 8.1 Site Conditions

- The groundwater table has been recorded at between 0.8 m and 1.5 m below ground level across the site during winter.
- Altitude sea level
- Ambient temperature 5 to 45 °C
- Relative humidity frequently 100%
- Air Pollution heavily saline and dust laden; industrial and locomotive fumes; ignitable dusts
- General wind velocities up to 60km/ h
- Storm wind velocities up to 180 km / h
- Climate data for Richards Bay based on monthly averages for the 30-year period: 1961-1990 (SAW, 2005) 2