



REEFER STRUCTURE REPAIR SOW

Durban Container Terminal Pier 1



1. TRANSNET PIER 1 COMPANY BACKGROUND:

Transnet Port Terminals (TPT) is a division of Transnet SOC Ltd, responsible for operating South Africa's commercial cargo handling facilities across all major ports. Pier 1 Container Terminal, located at the Port of Durban, is one of TPT's key strategic assets and a critical gateway for both regional and international trade. The terminal handles a high volume of containerized cargo, including reefer containers daily, relying on the seamless coordination of yard operations, vehicular movement, and cargo storage to maintain operational efficiency and safety.

2. PROJECT OVERVIEW:

In the terminal's high-intensity operating environment, structures such as reefer structure are prone to damage from accidental impacts, such as swinging containers striking the framework.

The reefer structures have sustained damage due to incidents where RTGs, while pulling reefers from the block, caused the container to swing and impact on the structures. This repeated contact has resulted in significant structural damage affecting multiple components. The damage has compromised safety, accessibility, and structural stability

Such incidents bend, tear, or weaken critical components, making sections unsafe and inoperable. Timely repair and replacement are essential to restore structural integrity, reduce downtime, and ensure maximum safety, reliability, and availability of reefer handling operations.

We have 4 reefer container blocks D1, E1, F1, G1: in total of 37 structures.

3. PROJECT OBJECTIVES:

- This project covers the inspection, repair, and restoration of damaged reefer structures caused by repeated RTG impacts when containers swung into the framework.
- The work includes replacing bent or ripped handrails, damaged steps, and broken mentis gratings/ walkways; straightening or replacing deformed support members; and reinforcing weakened joints.
- All repairs will comply with safety and engineering standards, with surfaces treated against corrosion. The project will conclude with a structural integrity check and a completion report containing before-and-after documentation.



- To restore the damaged reefer structures to safe operational conditions by repairing or replacing all affected components in compliance with safety regulations and engineering standards.

4. SCOPE OF WORK:

Note: The approved contractor shall perform the job according to the scope of work provided. Please note that any deviations from the scope must be discussed and approved by the project leader before work can commence. Any work performed by the contractor is subject to inspection by Transnet, and any incompetent practices will be disapproved.

The scope of work shall include the following but is not limited to:

All other details required can be discussed in site meeting.

The contractor shall carry out the following:

4.1. Damage Assessment

- Conduct a detailed inspection of all affected reefer structures.
- Identify all bent, cracked, ripped, or unstable sections.
- Document findings with photos and measurements.

4.2. Structural Repairs & Replacements

- Remove and replace bent or ripped handrails to meet safety standards.
- Repair or replace damaged steps ensuring proper anti-slip features.
- Replace damaged metal gratings/walkways with suitable load-bearing material.
- Straighten or replace bent vertical and horizontal support members.
- Reinforce weakened joints and connections to restore stability.
- Replace/secure cable trays.
- Straighten/replace DB brackets.
- To secure & replace earth cabling.

4.3. Surface Treatment & Protection

- Grind and smooth sharp or jagged edges caused by damage.
- Apply anti-corrosion primer and marine grade paint to all repaired areas with the same paint Color as the other structure.
- The paints must be marine grade, and capable of withstanding the harsh conditions typical of port operations, including exposure to saltwater, heavy machinery, and variable weather.



4.4. Structural Repairs requires extra work for damaged beam support

- D1 35 top tier and 39 top tier
- E1 23 top tier and 09 top tier
- F1 11 top tier

4.5. Safety Compliance

- Ensure all repairs meet relevant occupational health and safety requirements.
- Install safety signage and barriers during repair work to protect personnel.
- To have a flagman on duty at all times.
- To have a hot work permit before any cutting, grinding and welding etc.

4.6. Testing & Handover

- Perform a structural integrity check after repairs.
- Provide a repair completion report with before/after document

4.7. Deliverables

- Inspection report with detailed damage mapping.
- Fully repaired reefer gantry structures, safe for operational use.
- Completion report with photographs and compliance certification.

4.8 Exclusions

- Repairs to RTG equipment or containers.
- Any civil works outside the defined reefer footprint.

5. SITE ACCESS:

- Access to Pier 1 Container Terminal in the Port of Durban will be subject to TPT security requirements and regulations.
- Contractors using their own vehicles to enter the terminal must always wear PPE and provide their own revolving light for their vehicles.
- **Note: Contractor vehicles must be branded.**



6. SPECIFIC REQUIREMENTS:

- A compulsory site meeting will be held at the Pier 1 Technical Workshop. All other pertinent certificates and documentation must be provided.
- Ensure that all work is carried out in a manner that minimizes disruption to ongoing operations within the Terminal.
- Transnet will not provide any tools, equipment, or materials required for the execution of the work. The contractor shall be fully responsible for supplying all necessary resources to complete the paintings.
- The contractor shall be responsible for repairing any damages caused during the execution of the work. Transnet shall not be held liable for any such damages.

7. SAFETY MEASURES:

- Ensure workers use appropriate personal protective equipment (PPE) on site.
- Ensure that machine operators possess valid licenses specific to the machinery they are operating, and that all employees assigned to the work are properly licensed and authorized to perform their respective tasks.
- The contractor shall barricade the work area during the execution of the task, ensure proper disposal of all leftover materials, and clean the site upon completion, in accordance with applicable environmental standards and regulations.
- All scrap metals to be placed in TPT Pier 1 scrap metal bins at EES workshop.

8. QUALITY CONTROL:

- Transnet Port Terminals reserves the right to inspect any work done by the contractor, to ensure that original OEM materials are used, and to ensure workmanship is of Transnet's standards. Poor workmanship and unethical practices will be rejected.

11. Site Clearance and Cleanup

The Contractor shall clear away all debris and excess materials accumulated at the site and dispose of it away from Embassy premises, maintaining a neat site condition on completion of project, Contractor shall remove all surplus materials and leave the site in a broom clean condition.

10. Storage of Materials



All materials shall be stored in a proper manner protected from natural elements to avoid contamination and deterioration.

1. Authorization of Signatures

Compiled by

A handwritten signature in black ink.

Chris Bodenstien
Technical Supervisor

Date: 14/01/2026

Recommendation by

A handwritten signature in black ink.

Mandlenkosi Vilakazi
Acting Facilities Manager

Date: 14/01/2026

Approved by

A handwritten signature in black ink.

Mondli Kwani
Acting Senior Engineering Manager

Date: 15/01/2025