



Transnet Port Terminals

Durban Container

Terminal Pier 1

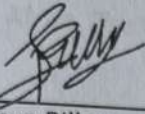
Document Title

Scope of Work

Project Title

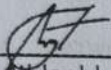
NON-DESTRUCTIVE TESTING FOR RTG BOGIES

Compiled by



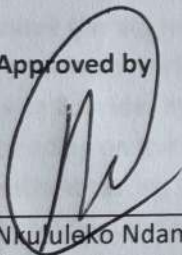
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Date: 17/10/2024

Supported by



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Date: 17/10/2024

Approved by



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Date: 06/04/24

Transnet Port Terminals is a division of Transnet core business which provides cargo handling services to a wide spectrum of customers, including shipping lines, freight forwarders, and cargo owners. Operations are divided into four major business segments, namely containers, bulk, break bulk and automotive. Pier 1 Container Terminal is based in Durban, South Africa. The terminal is responsible for the import and export of containerized cargo.

2. Scope Background

Durban Container Terminal, Pier 1, relies on Rubber Tyre Gantry (RTG) cranes for container operations. This work instruction outlines the procurement of services from an external provider to perform condition monitoring on 18 Rubber Tyre Gantry (RTG) cranes, focusing on the use of non-destructive testing (NDT) methods, specifically ultrasonic testing, to evaluate the structural integrity of the bogies.

3. Scope of Works

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

3.1 Scope Requirements

- Engineer and install proper stands specific for RTGs before commencement of work to stabilize machine.
- Remove the bogies from each corner of the RTGs to allow for thorough inspection and testing
- NDT methods, including ultrasonic testing, must be used to evaluate the structural integrity of the bogies. The Service Provider must assess for cracks, weld quality, and other defects.
- Depending on the condition of the bogies, other NDT methods such as magnetic particle testing (MT) or dye penetrant testing (PT) may be required to confirm results or identify surface-level defects.
- After testing, the bogies must be realigned accurately.
- Reassemble on completion.
- After reassembly, the Service Provider must test the wheel turning mechanism and gantry movement to confirm correct functionality.
- A comprehensive function test of each RTG machine must be conducted to ensure that the crane operates correctly following the condition monitoring process.
- The Service Provider must provide detailed reports documenting the findings of the NDT assessments. These reports must include the following:
 - Results from each bogie inspection, detailing any defects or areas requiring attention.
 - Certificates for each NDT test performed, ensuring compliance with relevant industry standards.
 - Recommendations for any further repairs or monitoring based on the test results.
- All reports and certificates must be submitted to the client in both electronic and hard-copy format within 5 business days of completion.
- Compliance with both local safety laws and international NDT and crane safety standards.

3.2 The service provider must ensure that at least a minimum team size of two people is deployed to a machine at any given time. No employee of the service provider is allowed to work alone on a machine.

3.3 The service provider shall ensure that the team deployed has a qualified technician or expert in charge.

3.4 The service provider shall ensure that the team consists of qualified personnel that are specialized in the field of Boiler making and Welding for maintenance and repairs.

3.5 The service provider shall ensure that all personnel are equipped with a trade specific toolbox and have all the relevant basic tools to complete the required work. These and all other tools brought on site by the service provider, shall remain the responsibility of the service provider.

3.6 TPT shall in no way accept responsibility for any tools and/or PPE brought to site by the service provider. Any replacement of tools and/or PPE shall be done at the service provider's own cost.

3.7 The service provider shall have a suitably qualified representative available during working times. The representative shall liaise on behalf of the service provider and handle all matters relating to the provision of the requirements as per the specification.

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4. Quality and Service

- 4.1 The Service Provider shall ensure that its employees tasked with providing the required services to Transnet are competent and experienced in carrying out its responsibilities as set out in the scope of work herein.
- 4.2 The Service Provider must have roadworthy and licensed vehicles.
- 4.3 The Service Provider must have a permanently manned telephone (place of business/cell phone) to ensure that immediate contact can be made in case of emergency.
- 4.4 The Service Provider must ensure that all team members are medically fit to conduct the required work, as per TPT requirements.
- 4.5 The service provider must ensure that all Transnet specifications are adhered to. In addition, compliance to the Occupational Health and Safety Act, ISO14001, and ISO001 must be adhered to. All Transnet specifications are available on request.

5. Safety

It is the responsibility of the contractor to ensure that the team working on site conduct work in a safe manner. All team members will be required to wear safety harnesses when working at heights and in high risk areas. It is the responsibility of the contractor to ensure that all personnel are trained to work at heights and are comfortable in doing so.

6. Inclusions

Transnet Port Terminals will provide the following:

- a. Access permits to the site
- b. Safety induction for contractors on site
- c. Man-Lift / Cherry Picker
- d. Forklift

7. Exclusions

Transnet Port Terminals will not provide the following:

- a. Man-Lift Certified Operator
- b. Forklift Certified Operator

Please ensure that a certified operator is catered for, if required for this scope of work.

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		EVALUATION FOR TRANSNET SOC LTD OPERATING AS TRANSNET PORT TERMINALS (HEREIN AFTER REFERRED TO AS " TPT") AT DCT PIER 1				
CRITERIA		DESCRIPTION	WEIGHT (Points) %	SCORING PRINCIPAL		
1. Eligibility						
		Ultrasonic Wall Thickness Inspection Certificate	Y/N	No bids will be accepted without the following documents.		
		Ultrasonic Testing Certificate - Level 2	Y/N			
		Penetrant Testing Certificate - Level 2	Y/N			
2. Quality Management		Contractor must submit a Quality Management document for carrying out the work.	40	Quality Management plan.		
				Method Statement.		
				Quality Control Plan.		
3. Experience		Contractor must submit traceable references of condition monitoring work done specific to non destructive testing (NDT) on mobile diesel engine driven equipment services and repairs in the past 5 years. Three (3) or more purchase orders will be acceptable.	60	Four (4) or more traceable references provided.		
				Three (3) traceable references provided.		
				Less than Three (3) traceable references provided.		
				0 Points		

Technical Qualification Threshold = 80%.

Compiled By: Suvanya Pillay


17/10/2024

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17/10/2024

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