



SCOPE OF WORK FOR REPAIR, TESTING AND COMMISSIONING OF TWO RAIL-ROAD SHUNTING LOCOMOTIVES.

WAGONS MAINTENANCE DEPOT (ORE CORRIDOR)

REFERENCE NO: SHNT_LOCO_REPAIR

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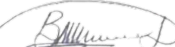
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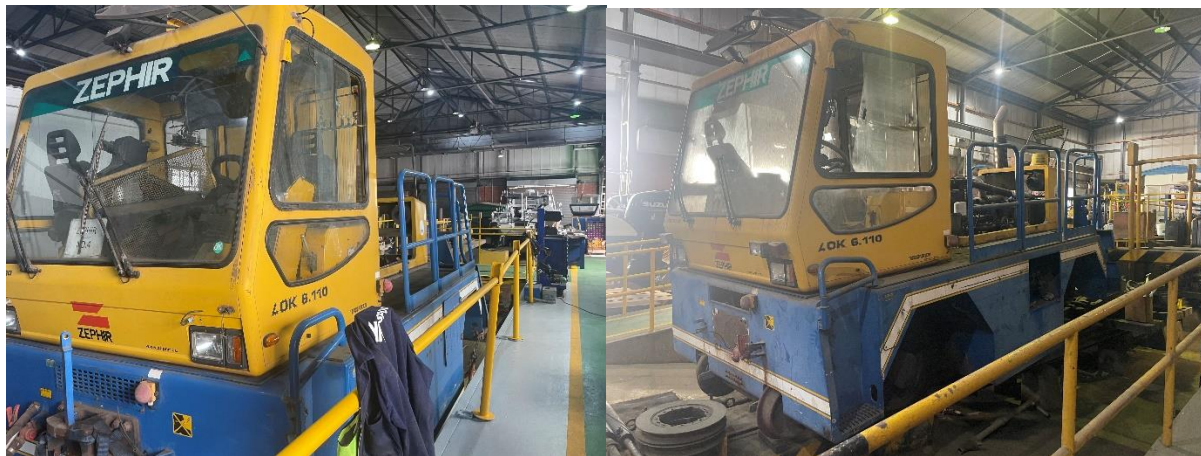
Document Authorities

Department	Facilities and Infrastructure
Department affected.	Wagons
Effective Date	September 2024

Compiled by	Limpho Ntahane
Designation	Technician
Signature & Date	 02/10/2024
Reviewed by	Anton van Blerk
Designation	Superintendent: Ore Corridor
Signature & Date	 02/10/2024
Reviewed by	Haroun Shaik
Designation	Plant Engineer: Ore Corridor
Signature & Date	 02.10.2024
Approved by	Bongufefe Ntengo
Designation	Senior Manager: Wagons
Signature & Date	 2024/10/03

1. Background

These two rail-road shunting locomotives are integral to the operational efficiency of our rail yard, primarily responsible for short-distance movement of wagons for tasks such as shunting of wagons for maintenance and repairs to different roads as per repairs or services required and other yard shunting movements. Due to continuous heavy use over an extended period, both locomotives have experienced significant wear and mechanical degradation, impacting their reliability and performance. A request for quotations was completed for the strip and assessment of the two loco's revealed a list of repairs required to bring the locomotives back into service.



2. Scope of Work

The scope of work applies to **two** rail-road shunting locomotives.

2.1 Mechanical Overhaul:

- Inspection and repair of the diesel engine, transmissions, and drive systems.
- Full servicing of braking systems, ensuring compliance with safety regulations.
- Overhaul of bogies and wheelsets, including wheel re-profiling or replacement if necessary.
- Inspection and servicing of couplers and drawgear components.

2.2 Electrical and Control Systems:

- Repair of electrical wiring, control panels, and electronic systems.
- Testing and calibration of safety and operational control systems.

2.3 Hydraulic and Pneumatic Systems:

- Servicing and repairs to hydraulic systems, particularly those responsible for steering or lifting functions.
- Inspection and repair of pneumatic systems, including air brakes and air suspension components.

2.4 Quality and Safety Compliance:

- Ensuring that all repairs meet Transnet's internal safety and quality standards.
- Compliance with relevant industry standards, including ISO, SANS, and railway-specific regulatory requirements.

2.5 Performance Testing and Certification:

- Once repairs are completed, each locomotive must undergo comprehensive performance testing, including load testing under real operating conditions.
- Certification of safety, operational readiness, and compliance must be provided before re-commissioning the locomotives for active service.

3. Site Inspection

- Both rail-road shunting locomotives are based in Humerail, Gqeberha
- All prospective Tenderers shall have the opportunity to undertake an optional site inspection to fully acquaint themselves with all aspects involved.
- The date and time for the site inspection will be shared with prospective bidders prior to the closing date of the request for quotations.

Manufacturer, Model, Serial Number	Location
Zephir, 6.110, 2335	Humerail Gqeberha
Zephir, 6.110, 2336	Humerail Gqeberha

4. Information Required

- Offers will not be considered unless full particulars and sufficient literature is provided at the tendering stage to enable the Transnet Engineering Technical Officers the opportunity to assess each technical offer properly.
- Prospective Tenderers will complete the relevant questionnaire in full and must indicate whether their offer complies with each item of the specification.
- Should there be insufficient space for furnishing full details; Tenderers shall provide the additional details in their covering letter. The additional details shall be numbered in accordance with the applicable clause specified in the specification.
- As prospective Tenderers are considered to be experts in their field, they are obliged to identify any shortcomings, such as omissions or sub-standard requirements, to the completeness of this specification. These must be brought to the attention of Transnet Engineering at tender stage with alternatives to address these shortcomings. However, each offer shall be quoted for separately.

5. Regulatory Requirements

- The following regulation and codes must be complied with: -
- Relevant SANS Standards
- The Occupational Health and Safety Act – Act 85 of 1993
- Except where otherwise provided for in the specification, all equipment offered will comply with the requirements of the relevant standard specifications of the SANS, if published, otherwise with the relevant standard of the British Standards Institution in force at the time of tendering.
- Where equipment offered complies with the recognized standards of the country of manufacture and not specifically with the standards required by this specification, such equipment will be considered at the discretion of Management. In this case, tenders shall state fully all respects in which the equipment departs from the standard laid down in this specification.
- The successful tenderer will at the conclusion of the installation provide document along the lines “that the installation complies with national/international requirements and that all selected /designed items are compliant with Act 85 of 1995 and SANS practices applicable to the installation. The equipment has been commissioned/ calibrated, and employees as specified have been trained and found competent to operate the plant.”

6. Scope of Works

6.1	The service performed must be according to set requirements for two shunting locomotives.	Comply Yes/No
6.1.1	Overhaul transmission	
6.1.2	Service and requalify compressor	
6.1.3	Service drive axels	
6.1.4	Service brake callipers and replace brake disc pads	
6.1.5	Service ABS braking mechanism	
6.1.6	Major Engine Service (Including all required consumables)	
6.1.7	Engine overhaul (top section)	
6.1.8	Overhaul turbocharger	
6.1.9	Overhaul starter motor and alternator	
6.1.10	Clean fuel tank, service fuel pump	
6.1.11	Repair electrical wiring, connectors and fuses	

6.1.12	Repair and replacement of lights	
6.1.13	Repair general body work, bent hand rails, mirrors, wipers etc and painting	
6.1.14	Repair rail engaging wheels and hardware	
6.1.15	Replace damaged hydraulic pipes, service hydraulic valves and solenoids, and replace damaged accumulators	
6.1.16	Overhaul automatic coupler cylinders	
6.1.17	Assemble and load test unit	
6.1.18	Sundries	
6.1.19	Provisional sum of R100,000	
6.1.20	All transportation costs including loading and unloading	

7. Specification Requirements

7.1	Plant Location	Comply Yes/No
7.1.1	The Plant is located at the Freight Rail Yard in Humerail Gqeberha.	
7.2	Documentation	
7.2.1	The Service Provider is to provide record of all work done as well as all required quality data upon completion of the works	
7.3	When making use of the Provisional Sum, Formal quotes will have to be submitted and approved by both the Senior Business Manager and the Plant Engineer or their delegated personnel before proceeding. This should be in line with market related pricing.	
7.3.1	Health And Safety Requirements	
7.3.2	The vendor is to provide a Health and Safety File which includes all personnel who will be doing on-site work. (not applicable if transported to contractor workshop)	