



TRANSNET ENGINEERING

PRODUCT AND SERVICES DEVELOPMENT

SPECIFICATION FOR THE SUPPLY AND DELIVERY OF REFURBISHED TRANSMISSION FOR TERBERG PORT HAULERS

Revision 00

Date of release

PD_PRTS_DBN_SPEC_019

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Signature of Bidder/s: _____

Date: _____

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DOC. No : PD_PRTS_DBN_SPEC_019

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1.0. INTRODUCTION

- 1.1. This specification details the supply and delivery of all the components detailed in the subsections of this document.
- 1.2. This specification states the minimum requirements of the refurbishment, and in no way absolves the Supplier from the responsibility for sound engineering practice.
- 1.3. The components and subcomponents mentioned in this document shall be delivered at Transnet Engineering, Bay 45, 311 Solomon Mahlangu Drive, Durban.
- 1.4. Any person with the intention of bidding for the refurbishment shall ensure that the information below is complied with. The information or requirements are binding and must be supplied by either the supplier in consultation with Transnet or Transnet Engineer and must ensure that mutual agreement is reached between the two parties (Supplier and Transnet) before the supply of machinery or material.

2.0. TECHNICAL REQUIREMENTS

Discussed in the sub-sections below are specifications and requirements for the refurbishment of the transmission for the Terberg port haulers, which should be complied with for the purpose of this RFQ.

3.0. OPERATING ENVIRONMENT

The Components specified in this document will be exposed to the following ambient conditions:

- To be used in corrosive environment (sea level)
- Temperature: 5°C - 45°C
- Humidity: Frequently 100%
- Air Pollution: Heavy saline, dust laden and industrial fumes.

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4.0. GENERAL REQUIREMENTS

The information in this section shall be provided by the supplier with the quotation on the noted components in this document.

- The cost of the refurbished transmissions.
- The supplier shall only use new components that are of proven design for the component replacement for the refurbishment of the transmissions.
- All components must be dust proof and watertight, where applicable.
- Each component/product shall include a minimum of one (1) year warranty. Verifiable warranty documents to be furnished by supplier.

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5.0. SPECIFIC REQUIREMENTS

5.1. Technical Requirements

Complete reconditioning of the ALLISON 3000 transmission which includes the following, but not limited to:

- 5.1.1. Strip transmission and torque converter
- 5.1.2. Clean all components
- 5.1.3. Carry out all machining to torque convertor and transmission housing according to OEM specifications.
- 5.1.4. Replace torque convertor lock up clutch/ damper
- 5.1.5. Replace all transmission wet clutches
- 5.1.6. Replace all valve body solenoids
- 5.1.7. Replace all damaged/worn gears
- 5.1.8. Replace oil pumps
- 5.1.9. Replace all valves
- 5.1.10. Replace all gaskets and seals
- 5.1.11. Replace all sensors – Temperature Sensor, RPM-Sensor complete, Inductive Sensor, etc.
- 5.1.12. Replace all pistons
- 5.1.13. Replace all bushes and bearings
- 5.1.14. Replace all runners and seals
- 5.1.15. Replace oil pressure relief valve
- 5.1.16. Remove and ultra-sonic clean oil cooler
- 5.1.17. Replace oil sprays
- 5.1.18. Replace all plumbing
- 5.1.19. Replace all filters
- 5.1.20. Re-assemble transmission to OEM specifications – Supplier to provide proof of OEM specification
- 5.1.21. Replace transmission breather
- 5.1.22. Carry out all adjustments and settings according to OEM specifications - Supplier to provide proof of OEM specification
- 5.1.23. Dyno test transmission to OEM specifications
- 5.1.24. Supply a Dyno report on transmission
- 5.1.25. Balance prop shaft
- 5.1.26. Replace all components that are identified to be missing with new components.
- 5.1.27. Paint transmission according to the original color – TE will provide the paint specification to the successful bidder. For quotation purposes, the paint system to be used must be a zinc-based primer and acrylic polyurethane topcoat to a DFT of 250 micron.

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Note: Bidders are to quote for the refurbishment of each transmission, accordingly, based on its condition. Each transmission may have different components which are missing/damaged. Bidders are considered to experts in this field of work and are to notify TE if additional work (not listed above) is required to be carried out on a specific transmission.

All quality documentation capturing the inspections conducted by the bidder during the refurbishment process must be submitted with the delivery of each transmission.

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6.0. DOCUMENTATION

The following documents shall be obtained for the procurement process.

- Itemized cost breakdown
- Brochure of the various components where applicable.
- The supplier shall provide documentation outlining the warranty of the refurbished transmission and what is covered.

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7.0. DOCUMENT AUTHORITIES

Compiled by:

A handwritten signature in black ink, appearing to read 'PDhulal', written over a horizontal line.

Payal Dhunlal

Engineer: Port Equipment

Transnet Engineering

Date: 02/03/2023

Approved by:

A handwritten signature in black ink, appearing to read 'Govender', written over a horizontal line.

Theo Govender

Principal Engineer

Transnet Engineering

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