

SCOPE OF WORK To

Rebuild Transmissions

Bulk Material Services

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1. PURPOSE

The purpose of this document is to define the services needed from a contractor to rebuild transmissions to OEM specifications for ERI – BMS Yellow Plant on an as and when required basis for a period of 3 years.

2. BRIEF OVERVIEW OF OUR BUSINESS

Eskom Rotek Industries` (ERI) Bulk Material Services (BMS) division provide amongst other services mobile (yellow) plant equipment for bulk materials handling (ash and coal) to ERI BMS division in various power stations across the country mainly fossil power station. The fossil power stations are concentrated in Mpumalanga, Limpopo and Gauteng. The mobile plant equipment is used to build and maintain coal stockyard, ash dams and dumps. In order to provide high standard of service a well maintained and reliable mobile plant is essential.

ERI has invested on diverse makes and types of mobile plant equipment. The mobile plant comprises of Articulated Dump Trucks (ADTs), Motor Graders (MGs), Bulldozers (BDs), Front End Loaders (FELs), Tractor Loader Backhoes (TLBs), i.e., brand makes such as Komatsu, Caterpillar, Volvo, Hitachi and Bell

Table 1: ERI Mobile Plant - Possible Fleet Transmission Overhaul Price Schedule

Make	Plant Type	Model	QTY	Transmission Make	Minimum Overhaul Price with Mandatory parts	Maximum Price All Parts Replaced New
BELL	ADT	B30D	10	ZF		
BELL	MG	770D	2	John Deere		
BELL	MG	670G	4	John Deere		
CAT	ADT	730	1	Caterpillar		
CAT	ADT	730C	6	Caterpillar		
CAT	ADT	730C2	1	Caterpillar		
CAT	BD	D8R	15	Caterpillar		
CAT	FEL	966H	3	Caterpillar		
CAT	MG	140H	10	Caterpillar		
CAT	TLB	422E	2	Caterpillar		
VOLVO	TLB	SDLG	2	Volvo		
KOMATSU	MG	GD675-5	9	Komatsu		
KOMATSU	ADT	HM300	1	Komatsu		
KOMATSU	BD	D155AX-6	4	Komatsu		
KOMATSU	BD	D155AX-5	1	Komatsu		
HITACHI	FEL	ZW310	5	ZF		
HYUNDAI	FEL	HL770-9s	5	ZF		

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3. DESCRIPTION OF SERVICES

The services required are for provision on an as and when basis of a qualified and competent service provider with a minimum of five years' experience in the repair and rebuild of Earthmoving Transmissions (See Table 1 for types of equipment and pricing) with genuine OEM parts to OEM standards.

4. SCOPE OF WORK

The Service provider is responsible for:

- **4.1.1** Collection and return of the transmission from ERI workshop at Rosherville JHB.
- **4.1.2** The transmission overhaul is to be undertaken at the supplier's facility and not a 3rd party's facility unless approved by an ERI representative prior to commencement of the work.
- **4.1.3** The supplier will strip the component down, clean and lay bare all parts for inspection by an ERI representative, if so requested.
- **4.1.4** The supplier will supply ERI with a quote for the rebuilding of the transmission with new OEM parts and labour with travel included. Where parts are sourced from a supplier other than the OEM or agent this should be indicated on the quote.
- **4.1.5** No work will commence without ERI approval by an Area Manager or more senior representative on email.
- **4.1.6** In carrying out the overhaul the supplier will record all specifications of parts that are deemed reusable against the manufacturer's specifications. These parts should be clearly marked in the quote as reusable.
- **4.1.7** The supplier will supply all specialised tools, equipment and requisite software for the rebuild.
- **4.1.8** ERI reserves the right to inspect the works at any stage of the rebuild process for as many times as deemed necessary.
- **4.1.9** On completion of the rebuild the transmission will be Dynamometer tested to confirm that the transmission performs to the original OEM parameters. Load testing duration will be no less than four continuous hours in duration and will preferably be run at load.
- **4.1.10** Supply load test results which need to be recorded and included in the final report. It is preferable that the load test results are system produced.
- **4.1.11** Issue a technical report detailing the cause of failure, rebuild overview with key specifications against OEM parameters and load test data. Photographic evidence must support failure text.

5. MANDATORY PARTS REPLACEMENT

The service provider shall replace the following parts with <u>new and genuine OEM parts</u> regardless of the condition of the existing parts

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- a) All friction and steel plates
- b) All springs
- c) All valve bank solenoids
- d) All bearings, bushes, seals, gaskets, O rings, cast iron shaft seal rings
- e) Planetary bearings and thrust washers
- f) Transmission pump rebuild / replacement
- g) Transmission filters

6. ALL OTHER PARTS

- **6.1.1** All other parts will on inspection, be either replaced, repaired or rebuilt to OEM standards or if still within OEM standards be reused.
- **6.1.2** The transmission cooler if supplied will be thoroughly cleaned and pressure tested at temperature.
- **6.1.3** Supplier will be required to provide OEM part numbers and proof of delivery from the OEM.

7. TRANSMISSION REPAIR REPORT

Information obtained whilst repairing the machine shall be recorded by the Contractor. A copy shall be returned to the Purchaser's Technical Planning Department. Records of repairs shall be kept for at least 2 years whereupon it will be sent to ERI should the Contractor decide not to keep the records any longer.

Payment shall not be made for the repair if these reports are not submitted.

Test to be conducted:

7.1 Dyno test transmission for a minimum period of four hours

The Dyno test report must include:

7.4. OEM pressure specifications versus test pressures

The Dyno test report must be submitted on delivery.

Other reports:

- 7.5. Transmission defect report must be submitted
- 7.6. List of all spares used during repairs

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8. COMMISSIONING

- **8.1.1** After installation ERI shall notify the service provider when the transmission is ready for commissioning and startup.
- **8.1.2** The service provider will within 24 hours have a representative present to approve the startup and installation.
- **8.1.3** The installation could be anywhere within a 350 Km radius of Johannesburg or in Johannesburg itself. There will be no charge for commissioning.
- **8.1.4** In the event that the service provider is unable to attend commissioning then he is entitled to ask for photographic evidence of various key points of the installation. Once supplied he will authorize by Email that ERI are able to continue with startup on their behalf and in their absence. Such an event as described herein will not negate any warranty responsibility of the service provider.

9. WARRANTY

- **9.1.1** The service provider will warrant the full scope of the repair including OEM parts, labour and travel for a period of 2500 hours or twelve months, whichever comes first.
- **9.1.2** Should the transmission be problematic within the warranty period then the provider undertakes to have a technician on the jobsite within 24 hours to establish whether the problem is warranty related or not. There will be no charge for warranty call-outs.
- 9.1.3 In the event of warranty work being carried out by the service provider there will be no pro rata contribution from ERI. All costs to reinstate the transmission to OEM specs will be for the provider's account.

10. QUALITY

- 10.1.1 Work shall be carried out in accordance with the relevant OEM approved specifications. Quality checks/ QCPs shall be compiled by the provider based on the scope of work approved prior to work being executed and submitted upon completion. Hold and Witness points must be agreed to by the provider and ERI representatives upon compilation of QCP and these shall not be by-passed under any circumstances without consent of an authorized ERI person.
- **10.1.2** The successful service provider will be ISO 9001 accredited.

11. INSURANCE

11.1.1 The service provider should have Professional Indemnity (PI) or other insurance to the value of one million rand to cover the cost of a claim against themselves in the event of a transmission loss by ERI, through poor workmanship.

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12. SUPPORTING DOCUMENTS

NB: The following documentation must be returned for the purpose of technical evaluation:

a) Technical Evaluation Criteria document

A weighted score-card approach will be used to evaluate the technical compliance of the tenders against the specifications. Tenderers need to have a weighted score of 70% overall or more to technically qualify for further evaluation. Refer to **Appendix A**

The technical criteria and weighting are broken down as follows:

Track Record of the company - 20%

Technical Skills, Capability and Resources - 50%

Technical Compliance - 30%



SCOPE OF WORK

То

Rebuild Transmissions

Bulk Material Services

APPENDIX A

Description	Technical Criterion	Scoring Criteria	Weight (%)
Track Record of the company			20
Proven track record of successful provision of required services	Trade reference letters from clients where similar work has been conducted on Transmission Repairs on earth moving equipment.	20 = Reference letter submitted with more than 5 years of service to a particular client. 0 = Reference letter not submitted Reference letter with less than 5 years	20
Technical Skills, Capability and Resource	es	Troibine lotter war lood than a years	50
Experience of key personnel (supervisor)	Curriculum vitae (cv) indicating relevant work and years of experience on earth moving equipment	15 = CV submitted with more than 5 years of service 0 = No CV or CV submitted with less than 5 years of service	15
Experience of key personnel (artisan)	CV's of employees with a Red Seal qualified diesel mechanic certificate indicating relevant work and years of experience on earth moving equipment transmission rebuilds		15
Spares / parts	Supply required to use OEM genuine spares / parts and should provide a OEM accreditation letter	10 = Submit an OEM letter	10
Facilities	Facility inspection of availability of the relevant equipment for repairs and	10 = Validation of the capability Proof of ownership / lease agreement	10

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	maintenance by ERI person to validate capability	0 = No or inadequate capability	
Technical compliance			30
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Professional Indemnity or other Insurance cover of one million or greater to cover an transmission loss	Insurance company cover letter with policy number	20 = Certificate or letter submitted to be verified by ERI	20
114113111330111033		0 = No certificate or letter submitted.	
Quality ISO 9001 certification	Submit a valid ISO certificate	10 = Valid certificate submitted	10
		0 = No certificate submitted.	1
Total Weighted Score	<u> </u>	<u> </u>	100

Overall minimum threshold for qualification (70%)

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