



TRANSNET FREIGHT RAIL, a division of

TRANSNET SOC LTD

Registration Number 1990/000900/30

[hereinafter referred to as **Transnet**]

REQUEST FOR QUOTATION [RFQ] No HOAC-HO-13176

**FOR THE PROVISION OF: THE DESIGN, TEST AND MANUFACTURE OF 25 TRACK
MAGNETS DETECTORS FOR RAIL TROLLEYS FOR A
PERIOD OF FOUR MONTHS.**

ISSUE DATE: 14 FEBRUARY 2014

BRIEFING DATE: 24 FEBRUARY 2014

CLOSING DATE: 18 MARCH 2014

CLOSING TIME: 10: AM

**ON CLOSING DATE PLEASE SUBMIT TWO (2) DOCUMENTS ORIGINAL &
COPY IN ONE ENVELOPE IT MUST BE INSCRIBED ON THE OUTSIDE
WITH THE TENDER NUMBER AND THE CLOSING DATE.**

COMPULSORY BRIEFING SESSION:

A compulsory briefing session will be held at the following venue:

Time: 10:00

Date: 24 February 2014

Venue: Transnet Freight Rail, Inyanda House 2, 15 Girton Road,
Barongwa boardroom, Parktown, Johannesburg.

The briefing session is compulsory and companies not attending **will be overlooked** during the tender awarding process.

ATTENDANCE CERTIFICATE

This is to certify that.....

Representative/s of

Has/have today attended the Tender briefing in respect of the proposed:

.....

TRANSNET'S REPRESENTATIVE TENDERER'S REPRESENTATIVE

DATE:.....

"PREVIEW COPY ONLY"

Section 1 NOTICE TO BIDDERS

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD: [hand/ post and/or courier]

CLOSING VENUE: The Secretary, Transnet Freight Rail, Acquisition Council, and Tender Box on the Ground floor, Inyanda House 1, 21 Wellington Road, and Parktown.

1 Responses to RFQ

Responses to this RFQ [**Quotations**] must not include documents or reference relating to any other quotation or proposal. Any additional conditions must be embodied in an accompanying letter.

2 Broad-Based Black Economic Empowerment [B-BBEE]

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it would therefore prefer to do business with local business enterprises who share these same values. Transnet will accordingly allow a "preference" to companies who provide a valid B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

2.1 B-BBEE Scorecard and Rating

As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Respondents are to note that the following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R1 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R1 000 000 (all applicable taxes included).
- Bidders are to note that if the 80/20 preference point system is stipulated in this RFP and all Bids received exceed R1 000 000.00, the RFP must be cancelled. Similarly, if the 90/10 preference point system is stipulated in this RFP and all Bids received are equal to or below R1 000 000.00, the RFP must be cancelled.

The value of this bid is estimated to exceed R1 000 000 (all applicable taxes included); and therefore the **90/10** system shall be applicable. When Transnet invites prospective suppliers to submit Proposals for its various expenditure programmes, it requires Respondents to have their B-BBEE status verified in compliance with the Codes of Good Practice issued in terms of the Broad Based Black Economic Empowerment Act No. 53 of 2003.

The Department of Trade and Industry recently revised the Codes of Good Practice on 11 October 2013 [Government Gazette No. 36928]. The Revised Codes will replace the Black Economic Empowerment Codes of Good Practice issued on 9 February 2007. The Revised Codes provide for

a one year transitional period starting 11 October 2013. During the transitional period, companies may elect to be measured in terms of the Revised Codes or the 2007 version of the Codes. After the first year of the implementation of the Revised Codes, B-BBEE compliance will be measured in terms of the Revised Codes without any discretion. Companies which are governed by Sector-specific Codes will be measured in terms of those Sector Codes.

As such, Transnet will accept B-BBEE certificates issued based on the Revised Codes. Transnet will also continue to accept B-BBEE certificates issued in terms of the 2007 version of the Codes provided it was issued before 10 October 2014. Thereafter, Transnet will only accept B-BBEE certificates issued based on the Revised Codes.

Respondents are required to complete Annexure A [the B-BBEE Preference Point Claim Form] and submit it together with proof of their B-BBEE Status as stipulated in the Claim Form in order to obtain preference points for their B-BBEE status.

Note: Failure to submit a valid and original B-BBEE certificate or a certified copy thereof at the Closing Date of this RFQ will result in a score of zero being allocated for B-BBEE.

3 Communication

Respondents are warned that a response will be liable for disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer(s) or employee of Transnet in respect of this RFQ between the closing date and the date of the award of the business.

A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name: Koketso Selowa Email: Koketso.selowa@transnet.net 011 584 0688

Respondents may also, at any time after the closing date of the RFQ, communicate with the Secretariat of the Transnet Acquisition Council on any matter relating to its RFQ response:

Telephone 011 544 9486
Email: prudence.nkabinde@transnet.net

4 Tax Clearance

The Respondent's original and valid Tax Clearance Certificate must accompany the Quotation. Note that no business shall be awarded to any Respondent whose tax matters have not been declared by SARS to be in order.

5 VAT Registration

The valid VAT registration number must be stated here: _____ [if applicable].

6 Legal Compliance

The successful Respondent shall be in full and complete compliance with any and all applicable national and local laws and regulations.

7 Changes to Quotations

Changes by the Respondent to its submission will not be considered after the closing date and time.

8 Pricing

All prices must be quoted in South African Rand on a fixed price basis, excluding VAT.

9 Prices Subject to Confirmation

Prices quoted which are subject to confirmation will not be considered.

10 Negotiations

Transnet reserves the right to undertake post-tender negotiations with selected Respondents or any number of shortlisted Respondents.

11 Binding Offer

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

12 Disclaimers

Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that Transnet reserves the right to:

- modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
- reject any Quotation which does not conform to instructions and specifications which are detailed herein;
- disqualify Quotations submitted after the stated submission deadline;
- not necessarily accept the lowest priced Quotation;
- reject all Quotations if it so decides;
- place an order in connection with this Quotation at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier/Service Provider; or
- make no award at all.

Transnet reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another bidder.

13 Transnet's supplier integrity pact

Transnet's Integrity Pact requires a commitment from suppliers and Transnet that they will not engage in any corrupt and fraudulent practices, anti-competitive practices; and act in bad faith towards each other. The Integrity Pact also serves to communicate Transnet's Gift Policy as well as the remedies available to Transnet where a Respondent contravenes any provision of the Integrity Pact.

Respondents are required to familiarise themselves with the contents of the Integrity Pact which is available on the Transnet Internet site [www.transnet.net/Tenders/Pages/default.aspx] or on request. Furthermore, Respondents are required to certify that they have acquainted themselves with all the

documentation comprising the Transnet Integrity Pact and that they fully comply with all the terms and conditions stipulated in the Transnet Supplier Integrity Pact as follows:

YES	
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NO	
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Should a Respondent need to declare previous transgressions or a serious breach of law in the preceding 5 years as required by Annexure A to the Integrity Pact, such declaration must accompany the Respondent's bid submission.

14 Evaluation Criteria

Transnet will utilise the following criteria] in choosing a Supplier/Service Provider, if so required:

Criterion/Criteria	Explanation
Administrative responsiveness	Completeness of response and returnable documents
Substantive responsiveness	<p>Prequalification criteria must be met and whether the Bid materially complies with the scope and/or specification given.</p> <p>Prequalification criteria must be met and whether the Bid materially complies with the scope and/or specification given Instruments to meet the exact specification as per the specification attached.</p> <ul style="list-style-type: none"> • Compliance to specification Clause by clause compliance document submitted. • Operating conditions: The product shall be manufactured to meet the operational conditions as stipulated in the Transnet specification. • Approval: The supplier must agree to install the product on one trolley for testing and provide proof of compliance to the specification. • A Delivery schedule A detailed delivery schedule on all items (lead time). The supplier The supplier must provide and fully install one unit within 30 days from the date of the award of the business. The supplier must provide and fully install one unit within 30 days from the date of the award of the business • Previous work done

	the supplier shall provide proof that the track magnet relay supplied is recently supplied to TFR AC locomotives for track magnet relay and is in currently in use/approved by TE.
Functionality Threshold	As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Respondents are to note that functionality is included as threshold with a prescribed percentage threshold of 80% . Compliance to specification / operating conditions/approval quality, previous performance, delivery lead-time will be considered as part of the technical evaluation[complete Annexure B – Technical Questionnaire]
Final weighted evaluation based on 90/10 preference point system as indicated in paragraph 2	<ul style="list-style-type: none"> • Pricing and price basis [firm] - whilst not the sole factor for consideration, competitive pricing and overall level of unconditional discounts¹ will be critical • B-BBEE status of company - Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table indicated in Annexure A.

15 Validity Period

Transnet desires a validity period of 90 [ninety] days from the closing date of this RFQ.

This RFQ is valid until _____.

16 Banking Details

BANK: _____

BRANCH NAME / CODE: _____

ACCOUNT HOLDER: _____

ACCOUNT NUMBER: _____

17 Company Registration

Registration number of company / C.C. _____

Registered name of company / C.C. _____

18 Disclosure of Prices Quoted

Respondents must indicate here whether Transnet may disclose their quoted prices and conditions to other Respondents:

YES NO

¹ Only unconditional discounts will be taken into account during evaluation. A discount which has been offered conditionally will, despite not being taken into account for evaluation purposes, be implemented when payment is effected.

19 Returnable Documents

Returnable Documents means all the documents, Sections and Annexures, as listed in the tables below.

- a) Respondents are required to submit with their Quotations the **mandatory Returnable Documents**, as detailed below.

Failure to provide all these Returnable Documents at the Closing Date and time of this RFQ will result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these Documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent. Please confirm submission of these mandatory Returnable Documents by so indicating [Yes or No] in the table below:

Mandatory Returnable Documents	Submitted [Yes or No]
SECTION 2 : Quotation Form	
ANNEXURE B : Technical Submission/Questionnaire	
ANNEXURE C : Technical requirements	

- b) In addition to the requirements of section (a) above, Respondents are further required to submit with their Quotations the following **essential Returnable Documents** as detailed below.

Failure to provide all these Returnable Documents may result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent. Please confirm submission of these essential Returnable Documents by so indicating [Yes or No] in the table below:

Essential Returnable Documents	Submitted [Yes or No]
SECTION 1 : Notice to Bidders	
- Valid and original B-BBEE Verification Certificate or certified copy thereof [Large Enterprises and QSEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero for preference	
- Valid and original B-BBEE certificate/sworn affidavit or certified copy thereof from auditor, accounting officer or SANAS accredited Verification Agency [EMEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero being allocated for preference	
- In the case of Joint Ventures, a copy of the Joint Venture Agreement or written confirmation of the intention to enter into a Joint Venture Agreement	

Essential Returnable Documents	Submitted [Yes or No]
- Original valid Tax Clearance Certificate [Consortia / Joint Ventures must submit a separate Tax Clearance Certificate for each party]	
- SECTION 3 : Standard Terms and Conditions of Contract for the Supply of Goods or Services to Transnet	
SECTION 4 : Vendor Application Form	
- Original cancelled cheque or bank verification of banking details	
- Certified copies of IDs of shareholder/directors/members [as applicable]	
- Certified copies of the relevant company registration documents from Companies and Intellectual Property Commission (CIPC)	
- Certified copies of the company's shareholding/director's portfolio	
- Entity's letterhead	
- Certified copy of VAT Registration Certificate [RSA entities only]	
- Certified copy of valid Company Registration Certificate [if applicable]	
- A signed letter from Respondent's auditor or accountant confirming most recent annual turnover figures	
ANNEXURE A – B-BBEE Preference Points Claim Form	

"PREVIEW COPY ONLY"

Respondent's Signature

Date & Company Stamp

Section 2 QUOTATION FORM

I/We _____

hereby offer to supply the goods/services at the prices quoted in the Price Schedule below, in accordance with the conditions related thereto.

I/We agree to be bound by those terms and conditions in:

- the Standard Terms and Conditions for the Supply of Goods or Services to Transnet [Section 3 hereof]; and
- any other standard or special conditions mentioned and/or embodied in this Request for Quotation.

I/We accept that unless Transnet should otherwise decide and so inform me/us, this Quotation [and, if any, its covering letter and any subsequent exchange of correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

I/We further agree that if, after I/we have been notified of the acceptance of my/our Quotation, I/we fail to deliver the said goods/service/s within the delivery lead-time quoted, Transnet may, without prejudice to any other legal remedy which it may have, cancel the order and recover from me/us any expenses incurred by Transnet in calling for Quotations a res and/or having to accept any less favourable offer.

Price Schedule

I/We quote as follows for the goods required, on a "delivered nominated destination" basis, excluding VAT:

Item No	Description of Goods /Services	Unit of Measure	Quantity	Unit Price (ZAR)	Total Price (ZAR)
1		
2		
3		
4		
5		
6		

Delivery Lead-Time from date of purchase order : _____ **[days/weeks]**

Notes to Pricing:

- a) All Prices must be quoted in South African Rand, exclusive of VAT
- b) To facilitate like-for-like comparison bidders must submit pricing strictly in accordance with this price schedule and not utilise a different format. Deviation from this pricing schedule could result in a bid being disqualified.
- c) Please note that should you have offered a discounted price(s), Transnet will only consider such price discount(s) in the final evaluation stage if offered on an unconditional basis.

Respondent's Signature

Date & Company Stamp

Section 3

STANDARD TERMS AND CONDITIONS FOR THE SUPPLY OF GOODS OR SERVICES TO TRANSNET

A Supplier/Service Provider shall be obliged to adhere to the Standard Terms and Conditions for the Supply of Goods and Services to Transnet as expressed hereunder. Should the Respondent find any condition(s) unacceptable, it should indicate which condition(s) is/are unacceptable and offer an alternative(s). A Quotation submitted by a Respondent will be subjected to review and acceptance or rejection of its proposed contractual terms and conditions by Transnet's Legal Counsel, prior to consideration for an award of business.

1 SOLE AGREEMENT

Unless otherwise agreed in writing, these terms [Terms and each Term] and Transnet's purchase order(s) [Order or Orders] represent the only conditions upon which Transnet SOC Ltd [Transnet] procures goods [the Goods] or services [the Services] specified in the Order from the person to whom the Order is addressed [the Supplier/Service Provider]. Transnet does not accept any other conditions which the Supplier/Service Provider may specify, unless otherwise agreed to by Transnet in writing. In the event of any inconsistency between these Terms and any Order, these Terms shall take precedence.

2 CONFORMITY WITH ORDER

Goods/Services shall conform strictly with the Order. The Supplier/Service Provider shall not vary the quantities specified and/or the specification, if any, stipulated in the Order, without the prior written consent of Transnet. The Supplier/Service Provider warrants that the Goods/Services shall be fit for their purpose and of satisfactory quality.

3 DELIVERY AND TITLE

3.1 The delivery dates and addresses are those in the Order. Time shall be of the essence in respect of the Supplier's/Service Provider's obligations under the Order.

3.2 The Supplier/Service Provider will not be excused for delay in delivery or performance except due to circumstances outside its control and then only subject to the Supplier/Service Provider having notified Transnet in writing on becoming aware of such circumstances. Transnet may terminate an Order, in whole or in part, without incurring any liability to the Supplier/Service Provider if such a delay becomes, in Transnet's absolute opinion, significant.

3.3 Risk of loss or damage to Goods shall pass to Transnet on delivery, and title shall pass to Transnet when payment to the Supplier for the Goods has been effected. If on delivery, the Goods/Services do not conform to the Order, Transnet may reject the Goods/Services and the Supplier/Service Provider shall promptly rectify any defects or in Transnet's opinion, supply appropriate replacement Goods/Services at the Supplier's/Service Provider's expense within the specified delivery times, without any liability due by Transnet. Goods shall be subject to such testing and/or inspection as Transnet may consider necessary.

4 PRICE AND PAYMENT

4.1 Prices specified in an Order cannot be increased. Payment for the Goods/Services shall be made by Transnet against an original undisputed invoice(s) [a Tax Invoice], supporting documentation and

month-end statement from the Supplier/Service Provider. Tax Invoices plus supporting documentation shall be posted to the address shown in the Order.

- 4.2 Payment of the Supplier's/Service Provider's valid Tax Invoice(s) will be made by Transnet in the South African currency and on the terms stated in the Order, the standard payment terms being 30 [thirty] days from date of receipt by Transnet of a month-end statement, unless otherwise agreed to in writing. Transnet shall arrange for payment of such Tax Invoices and any pre-authorised additional expenses incurred, provided that the authorised expenses are supported by acceptable documentary proof of expenditure incurred [where this is available]. Any amounts due in terms of these Terms shall be paid to the Supplier/Service Provider, taking into account any deduction or set-off and bank charges.

5 PROPRIETARY RIGHTS LIABILITY

If any allegations should be made or any claim asserted against Transnet that ownership of, or any act or omission by Transnet in relation to Goods/Services or any written material provided to Transnet relating to any Goods/Services or pursuant to an Order being a violation or infringement of any third party's contractual, industrial, commercial or intellectual property rights including but not limited to any patent, registered design, design right, trade mark, copyright or service mark on any application thereof, the Supplier/Service Provider hereby indemnifies Transnet against and hold it harmless from any and all losses, liabilities, costs, claims, damages and expenses [including any legal fees] arising directly or indirectly from such allegation or claim provided that the indemnity shall not apply where the allegation or claim arises solely as a result of the Supplier/Service Provider following a design or process originated and furnished by Transnet. The Supplier/Service Provider shall either

- a) procure for Transnet the right to continue using the infringing Goods; or
- b) modify or replace the Goods/Services so that they become non-infringing,

provided that in both cases the Goods/Services shall continue to meet Transnet's requirements and any specifications stipulated in the Order. Should neither option be possible, the Supplier/Service Provider may remove, with Transnet's prior written consent, such Goods/Services and will pay to Transnet a sum equivalent to the purchase price. If Transnet refuses to give such consent, the Supplier/Service Provider shall have no liability in respect of any continued use of the infringing Goods/Services after Supplier's/Service Provider's prior written request to remove the same.

6 PROPRIETARY INFORMATION

All information which Transnet has divulged or may divulge to the Supplier/Service Provider and any information relating to Transnet's business which may have come into the Supplier's/Service Provider's possession whilst carrying out an Order, and the existence of the Order, shall be treated by the Supplier/Service Provider as confidential information and shall not, without Transnet's prior written consent, be disclosed to any third party, or be used or copied for any purposes other than to perform the Order. This clause does not apply to information which is public knowledge or available from other sources other than by breach of this Term. Upon request by Transnet, the Supplier/Service Provider shall return all materials issued pursuant to the Order and, pending this, shall protect Transnet's rights in any such materials. Such confidential information shall at all material times be the property of Transnet.

7 DEVELOPMENT WORK IN THE PRODUCTION OF GOODS

If the production or provision of any Goods involves research and/or development which are wholly or partly funded by Transnet, then all intellectual property or other rights as a result thereof shall be the property of Transnet on creation.

8 PUBLICITY

The Supplier/Service Provider shall not name Transnet or use its trademarks, service marks [whether registered or not] or Goods in connection with any publicity without Transnet's prior written consent.

9 AFTER SALES SERVICE

The Supplier shall provide replacement parts necessary to ensure the uninterrupted operation of the Goods supplied for the duration of the warranty period, from delivery of any particular item of the Goods and if requested by Transnet shall make these parts available to a third party maintainer of Transnet's choice at the same price as if the parts had been supplied to Transnet. The Supplier undertakes to provide a maintenance service for Goods, should Transnet so request, on terms to be agreed. If the Order so indicates, the Supplier will provide a warranty service for the Goods at a level to be agreed with Transnet.

10 TERMINATION OF ORDER

10.1 Transnet may cancel an Order in whole or in part at any time upon at least 7 [seven] days' written notice to the Supplier/Service Provider, or when there is a change in control of the Supplier/Service Provider or the Supplier/Service Provider commits any serious breach or any repeated or continued material breach of its obligations under these Terms and/or Order or shall have been guilty of conduct tending to bring itself into disrepute, on written notice to the Supplier/Service Provider when such work on the Order shall stop.

10.2 Transnet shall pay the Supplier/Service Provider a fair and reasonable price for justified work in progress, where such price reflects only those costs not otherwise recoverable by the Supplier/Service Provider, at the time of termination, and the Supplier/Service Provider shall give Transnet all assistance to check the extent of such work in progress. Payment of such price shall be in full and final satisfaction of any claims arising out of such termination and upon such payment the Supplier/Service Provider shall deliver to Transnet all work, including any materials, completed or in progress. The sum payable to the Supplier/Service Provider under this clause will not in any event exceed the total amount that would have been payable to the Supplier/Service Provider had the Order not been terminated.

10.3 In the event of termination the Supplier/Service Provider must submit all claims within 2 [two] months of termination after which time claims will only be met in what Transnet considers exceptional circumstances.

10.4 If the Goods or Services are not provided in accordance with an Order, the Order shall be deemed terminated and the Supplier/Service Provider shall compensate Transnet for any costs incurred in obtaining substitute Goods or any damage caused due to the failure or delay in the delivery.

11 ACCESS

The Supplier/Service Provider shall be liable for the acts, omissions and defaults of its personnel or agents who, for the purposes of the Order, shall be treated as if they are the Supplier's/Service Provider's

employees. The Supplier/Service Provider shall ensure that any such personnel or agents, whilst on Transnet's premises, shall comply with Transnet's health and safety, security and system security rules and procedures as and where required.

12 WARRANTY

The Supplier/Service Provider warrants that it is competent to supply the Goods/Services in accordance with these Terms to the reasonable satisfaction of Transnet and that all Goods/Services delivered under the Order: (a) conform and comply in all relevant legislation, standards, directives and orders related to *[inter alia]* the supply, manufacture and use of the Goods/Services in force at the time of delivery, and to any specifications referred to in the Order; (b) will not cause any deterioration in the functionality of any Transnet equipment; and (c) do not infringe any third party rights of any kind. The Supplier/Service Provider hereby indemnifies Transnet against all losses, liabilities, costs, claims, damages, expenses and awards of any kinds incurred or made against Transnet in connection with any breach of this warranty.

13 INSOLVENCY

If the Supplier/Service Provider shall have a receiver, manager, administrator, liquidator or like person appointed over all or any part of its assets or if the Supplier/Service Provider compounds with its creditors or passes a resolution for the winding up or administration of the Supplier/Service Provider, Transnet is at liberty to terminate the Order or Orders forthwith or at its option, to seek performance by any such appointed person.

14 ASSIGNMENT

The Supplier/Service Provider shall not assign its obligations under an Order without Transnet's prior written consent, which consent shall not be unreasonably withheld or delayed.

15 NOTICES

Notices under these Terms shall be delivered by hand to the relevant addresses of the parties in the Order or may be served by facsimile or by email, in which event notice shall be deemed served on acknowledgment of receipt by the recipient.

16 LAW

Orders shall be governed by and interpreted in accordance with South African law and any disputes arising herein shall be subject to South African arbitration under the rules of the Arbitration Foundation of South Africa, which rules are deemed incorporated by reference in this clause. The reference to arbitration shall not prevent Transnet referring the matter to any South African courts, having jurisdiction, to which the Supplier/Service Provider hereby irrevocably submits but without prejudice to Transnet's right to take proceedings against the Supplier/Service Provider in other jurisdictions and/or obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision in other courts or from instituting in any court of competent jurisdiction any proceedings for an interdict or any other injunctive relief. If the Supplier/Service Provider does not have a registered office in the South Africa it will at all times maintain an agent for service of process in South Africa and shall give Transnet the name and address of such agent as such may be amended, in writing, from time to time.

17 GENERAL

Completion or termination of an Order shall be without prejudice to any Term herein which by its nature would be deemed to continue after completion or termination, including but not limited to clauses **Error! Reference source not found.5**, **Error! Reference source not found.6**, **Error! Reference source not found.7**, **Error! Reference source not found.8** and **Error! Reference source not found.12**. Headings are included herein for convenience only. If any Term herein be held illegal or unenforceable, the validity or enforceability of the remaining Terms shall not be affected. No failure or delay by Transnet to enforce any rights under these Terms will operate as a waiver thereof by Transnet. All rights and remedies available to either party under these Terms shall be in addition to, not to the exclusion of, rights otherwise available at law.

18 COUNTERPARTS

These Terms and conditions may be signed in any number of counterparts, all of which taken together shall constitute one and the same instrument. Any party may enter into this agreement by signing any such counterpart.

"PREVIEW COPY ONLY"

By signing this RFQ document, the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed to properly take it into account for the purpose of calculating quoted prices or otherwise.

SIGNED at _____ on this _____ day of _____ 20__

.....
SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE

NAME: _____

DESIGNATION: _____

REGISTERED NAME OF COMPANY: _____

PHYSICAL ADDRESS:

Respondent's contact person *[Please complete]*

Name	:	
Designation	:	
Telephone	:	
Cell Phone	:	
Fax/Imile	:	
Email	:	
Website	:	



Transnet urges its clients, suppliers and the general public to report any fraud or corruption to TIP-OFFS ANONYMOUS : 0800 003 056

**Section 4
VENDOR APPLICATION FORM**

Respondents are to furnish the following documentation and complete the Vendor Application Form below:

1. **Original** cancelled cheque **OR** letter from the Respondent's bank verifying banking details **[with bank stamp]**
2. **Certified** copy of Identity Document(s) of Shareholders/Directors/Members [where applicable]
3. **Certified copies** of the relevant company registration documents from Companies and Intellectual Property Commission (CIPC)
4. **Certified copies** of the company's shareholding/director's portfolio
5. A letter on the company's letterhead confirm physical and postal addresses
6. **Original** valid SARS Tax Clearance Certificate
7. **Certified copy** of VAT Registration Certificate
8. **A valid and original** B-BBEE Verification Certificate / sworn affidavit **or certified copy** thereof meeting the requirements for B-BBEE compliance as per the B-BBEE Codes of Good Practice
9. **Certified copy** of valid Company Registration Certificate [if applicable]

Vendor Application Form

Company trading name						
Company registered name						
Company Registration Number or ID Number if a Sole Proprietor						
Form of entity [√]	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
VAT number [if registered]						
Company telephone number						
Company fax number						
Company email address						
Company website address						
Bank name			Branch & Branch code			
Account holder			Bank account number			
Postal address						

		Code	
Physical Address			Code
Contact person			
Designation			
Telephone			
Email			
Annual turnover range [last financial year]	< R5 m	R5 - 35 m	> R35 m
Does your company provide	Products	Services	Both
Area of delivery	National	Provincial	Local
Is your company a public or private entity	Public	Private	
Does your company have a Tax Directive or IRP30 Certificate	Yes	No	
Main product or services [e.g. Stationery/Consulting]			

Complete B-BBEE Ownership Details:

% Black ownership		% Black women ownership		% Disabled Black ownership		% Youth ownership	
Does your entity have a B-BBEE certificate		Yes		No			
What is your B-BBEE status [Level 1 to 9 / Unknown]							
How many personnel does the entity employ		Permanent		Part time			

If you are an existing vendor with Transnet please complete the following:

Transnet contact person	
Contact number	
Transnet Operating Division	

Duly authorised to sign for and on behalf of Company / Organisation:

Name		Designation	
Signature		Date	

**RFQ FOR THE SUPPLY / PROVISION OF
THE DESIGN, TEST AND MANUFACTURE OF 25 TRACK MAGNETS DETECTORS FOR
RAIL TROLLEYS FOR A PERIOD OF FOUR MONTHS.**

ANNEXURE A : B-BBEE PREFERENCE POINTS CLAIM FORM

This preference form contains general information and serves as a claim for preference points for Broad-Based Black Economic Empowerment [B-BBEE] Status Level of Contribution.

1. INTRODUCTION

- 1.1 A total of preference points shall be awarded for B-BBEE Status Level of Contribution.
- 1.2 Failure on the part of a Bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System [SANAS] or a Registered Auditor approved by the Independent Regulatory Board of Auditors [IRBA] or an Accounting Officer as contemplated in the Close Corporation Act [CCA] together with the bid will be interpreted to mean that preference points for B-BBEE Status Level of Contribution are not claimed.
- 1.3 Transnet reserves the right to require of a Bidder, either before a Bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by Transnet.

2. GENERAL DEFINITIONS

- 2.1 **"all applicable taxes"** include value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 2.2 **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 2.3 **"B-BBEE status of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- 2.4 **"Bid"** means a written offer in a prescribed or stipulated form in response to an invitation by Transnet for the provision of goods, works or services;
- 2.5 **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 [Act No. 53 of 2003];
- 2.6 **"comparative price"** means the price after the factors of a non-firm price and all unconditional discounts that can utilised have been taken into consideration;
- 2.7 **"consortium or joint venture"** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skills and knowledge in an activity for the execution of a contract;
- 2.8 **"contract"** means the agreement that results from the acceptance of a bid by Transnet;

- 2.9 **"EME"** means any enterprise with an annual total revenue of R5 [five] million or less as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total revenue of R10 [ten] million or less as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928;
- 2.10 **"firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs and excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.11 **"functionality"** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.12 **"non-firm prices"** means all prices other than "firm" prices;
- 2.13 **"person"** includes reference to a juristic person;
- 2.14 **"QSE"** means any enterprise with an annual total revenue between R5 [five] million and R35 [thirty five] million as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total revenue of between R10 [ten] million and R50 [fifty] million as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928
- 2.15 **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- 2.16 **"subcontract"** means the primary contractor's assigning or leasing or making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract;
- 2.17 **"total revenue"** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Empowerment Act and promulgated in the Government Gazette on 9 February 2007;
- 2.18 **"trust"** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.19 **"trustee"** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The Bidder obtaining the highest number of total points for the evaluation criteria as enumerated in Section 2 of the RFP will be awarded the contract, unless objective criteria justifies the award to another bidder.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3 Points scored will be rounded off to 2 [two] decimal places.
- 3.4 In the event of equal points scored, the Bid will be awarded to the Bidder scoring the highest number

of preference points for B-BBEE.

- 3.5 However, when functionality is part of the evaluation process and two or more Bids have scored equal points including equal preference points for B-BBEE, the successful Bid will be the one scoring the highest score for functionality.
- 3.6 Should two or more Bids be equal in all respect, the award shall be decided by the drawing of lots.

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4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

- 4.1 In terms of the Preferential Procurement Regulations, 2011, preference points shall be awarded to a Bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of Points [Maximum 10]
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

- 4.2 Bidders who qualify as EMEs in terms of the 2007 version of the Codes of Good Practice must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EME's with B-BBEE Status Level Certificates.
- 4.3 Bidders who qualify as EMEs in terms of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928 are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R10 million or less and the entity's Level of Black ownership.
- 4.4 In terms of the 2007 version of the Codes of Good Practice, Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 4.5 In terms of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928, Bidders who qualify as QSEs are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R50 million or less and the entity's Level of Black ownership. Large enterprises must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 4.6 A trust, consortium or joint venture will qualify for points for its B-BBEE status level as a legal entity, provided that the entity submits its B-BBEE status level certificate.
- 4.7 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 4.8 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialised scorecard contained in the B-BBEE Codes of Good Practice.

4.9 A person will not be awarded points for B-BBEE status level if it is indicated in the Bid documents that such a Bidder intends subcontracting more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not qualify for at least the same number of points that such a Bidder qualifies for, unless the intended subcontractor is an EME that has the capability and ability to execute the subcontract.

4.10 A person awarded a contract may not subcontract more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

4.11 Bidders are to note that in terms of paragraph 2.6 of Statement 000 of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928, any representation made by an entity about its B-BBEE compliance must be supported by suitable evidence or documentation. As such, Transnet reserves the right to request such evidence or documentation from Bidders in order to verify any B-BBEE recognition claimed.

5. B-BBEE STATUS AND SUBCONTRACTING

5.1 **Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:**

B-BBEE Status Level of Contributor _____ = _____ [maximum of 10 points]

Note: Points claimed in respect of this paragraph 5.1 must be in accordance with the table reflected in paragraph 4.1 above and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit in the case of an EME or QSE.

5.2 **Subcontracting:**

Will any portion of the contract be subcontracted? YES/NO [delete which is not applicable]

If YES, indicate:

- (i) What percentage of the contract will be subcontracted?%
- (ii) The name of the subcontractor
- (iii) The B-BBEE status level of the subcontractor
- (iv) Is the subcontractor an EME? YES/NO

5.3 **Declaration with regard to Company/Firm**

- (i) Name of Company/Firm.....
- (ii) VAT registration number.....
- (iii) Company registration number.....
- (iv) Type of Company / Firm [TICK APPLICABLE BOX]

- Partnership/Joint Venture/Consortium
- One person business/sole propriety
- Close Corporations
- Company (Pty) Ltd

(v) Describe Principal Business Activities

.....
.....
.....

(vi) Company Classification [TICK APPLICABLE BOX]

- Manufacturer
- Supplier
- Professional Service Provider
- Other Service Providers, e.g Transporter, etc

(vii) Total number of years the company/firm has been in business.....

BID DECLARATION

I/we, the undersigned, who warrants that he/she is duly authorised to do so on behalf of the company/firm, certify that points claimed, based on the B-BBEE status level of contribution indicated in paragraph 4 above, qualifies the company/firm for the preference(s) shown and I / we acknowledge that:

- (i) The information furnished is true and correct.
- (ii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 6 above, the contractor may be required to furnish documentary proof to the satisfaction of Transnet that the claims are correct.
- (iii) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, Transnet may, in addition to any other remedy it may have:
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) restrict the Bidder or contractor, its shareholders and directors, and/or associated entities, or only the shareholders and directors who acted in a fraudulent manner, from obtaining business from Transnet for a period not exceeding 10 years, after the *audi alteram partem* [hear the other side] rule has been applied; and/or
 - (e) forward the matter for criminal prosecution.

WITNESSES:

1.

2.

SIGNATURE OF BIDDER

DATE:.....

COMPANY NAME:

ADDRESS:.....



A division of Transnet limited
RAIL NETWORK (TECHNICAL)
SPECIFICATION

IN MOTION TRACK MAGNET TESTING DEVICE FOR RAIL
INSPECTION TROLLEY

Compiled: Senior Engineer (Mechanical) (Rail Network Technical) H. Esterhuysen
Supported: Senior Engineer (Electrical) (Rail Network Technical) C.F. du Toit
Approved: Principal Engineer (Technology Management) S. Sibande
Approved: Principal Engineer (Compliance) (Rail Network, Technical) L. Msibi

Four handwritten signatures are present, each on a dotted line. From top to bottom, they correspond to H. Esterhuysen, C.F. du Toit, S. Sibande, and L. Msibi.

Date: 13/12/2013

Circulation to:
Rail Network (Coal Export line)
Technology Management
Relevant third parties

SPECIFICATION FOR IN-MOTION TRACK MAGNET TESTING DEVICE FOR RAIL INSPECTION TROLLEY

1 SCOPE

- 1.1 This specification covers the technical requirements for design, supply and installation of a detection device for track magnets installed at neutral sections of 25kV and 50kV AC electrification installations.
- 1.2 The device must comprise of magnetic detection transducers for the correct track magnet orientation and specified minimum field strength 130 mm above the rail of the track magnet installed at the beginning and end of the neutral sections. The device must be robust for rough handling and user-friendly as it will be industrialised and installed on 25 inspection trolleys for use by infrastructure maintenance personnel on AC electrified networks.

2 ENVIRONMENTAL FACTORS

- 2.1 The equipment shall be designed and rated for continuous operation under the following conditions:

Altitude	: 0 to 1980m Above Sea Level
Relative humidity	: Up to 96%
Ambient temperature range	: -50°C to 70°C
Wind Pressure	: 100 Pa, on equivalent projected area normal to the direction of wind.
Lightning conditions	: Severe, Flash Density of 15/km ² /year
Pollution	: Coastal: salt laden fog, dust
Mechanical	: Robust environment associated with steel-on-steel rail/wheel interaction, impacts up to 15g.
Power supply	: 24Volt DC automotive power supply, subjected to power surges from vehicle's starter coil.

3 GENERAL INFORMATION

- 3.1 Abbreviations and acronyms
 N: Track magnet North Pole
 S: Track magnet South Pole

3.2 Definitions

Polarity: These are permanent markings on the surface of the track magnet to indicate either the magnetic North or South poles

Track magnet: This is a permanent magnet fitted between the rails, at a fixed distance on either side of a neutral section

Neutral section: A non-electrified section of overhead line which electrically separates two phases of the electrical supply system.

Track magnet pick-up: It is a relay that is activated by a track magnet.

4 SPECIFICATIONS AND STANDARDS

4.1 Standards

Construction for transducing device: The installation shall comply with appropriate Transnet Freight Rail and international standards for wiring and electrical protection on rolling stock.

4.2 Specifications

Drawing BBC 1831	25kV AC voltage phase change
Drawing BBC 0679	50kV AC voltage phase change
Specification BBF 0889 App B	3kV to 25kV voltage change
Drawing BBC0694	Rubber protective ramp arrangement mounting of track magnet at 25/50kV AC Phase breaks
Drawing CEE-TLE-7	Track Magnet proposed assembly 25kV AC Locomotive Switching at Phase Breaks

5 DESCRIPTION OF TRACK MAGNETS

5.1 AC Electrified lines are powered by single phase power. At regular intervals, the supply changes over from one phase to another. These voltage change stations are provided with electrical insulation, and the locomotives individually use the track magnets mounted between the rails to detect a voltage change station and power down before transiting. On exiting the voltage change station, another magnet is detected whereafter the locomotive powers up again.

Where DC and AC lines interface, voltage change stations are also installed which work on a similar bases as for AC/AC changes.

5.2 For 25 kV AC lines, the normal orientation for a track magnet is,

- (a) Facing the neutral section, South left North right. This orientation results in powering down the locomotive.
- (b) Exiting the neutral section, north left, south right this will result in the locomotive powering up again.

5.3 On 50kV AC phase changes and 3kVDC/25kVACAC/DC changeover, four magnets are installed, the transducers must detect the following sequence

- (a) Facing the neutral section,
 - First magnet is South left, North right. This orientation results in powering down the locomotive.
 - Second magnet is North left, South right.
- (b) Exiting the neutral section
 - Third magnet is South left, North right which will result in the locomotive powering up again.
 - Forth magnet is North left, South right.

6 REQUIREMENTS FOR TRACK MAGNET DETECTION DEVICE

The permanent magnet test device must be built to comply with the following requirements:

6.1. The Transducer

- 6.1.1 The supplier must provide industrialised products proven and approved by Transnet Engineering product development division for use on locomotives.
- 6.1.2 The same magnetic pick-ups must be used as in the 7E locomotive and react on the same pulse as the track magnet relay in the locomotive
- 6.1.3 It must measure in motion for all speeds up to 120 km/h.
- 6.1.4 It must operate with 24 V supply. A voltage inverter may be used to convert the 24V to 110V which is the standard locomotive supply for auxiliaries.
- 6.1.5 It must be able to determine and indicate the polarity of up to four consecutive track magnets and must have a reset button to reset the device when reset button is pressed.

- 6.1.6 The sensors must be fitted in the centre of the rear wheels 130mm \pm 3mm above rail crown when measured on a trolley fitted with new wheels.
- 6.1.7 Two Track magnet pick-ups must be installed in line of motion of each other, the one facing forward and the other one facing backward with the same pre-set. This is to assure that both N-S and S-N orientation will be picked up.
- 6.1.8 Where applicable, the device must be designed in such a manner that it does not come loose due to vibrations and forces arising from normal in-service trolley operation.
- 6.1.9 All ferrous parts of the device exposed to the atmosphere must be stainless steel or mild steel hot dip galvanised in accordance with specification SANS 121.
- 6.1.10 The device shall be IP 65 rated

6.2. The User interface panel.

The following functionalities are required

- 6.2.1. A device self-test button. All LED's must glow when self-test button pressed to indicate correct functionality of device.
- 6.2.2. A power on button. A red LED must glow when the unit is powered on. This power button must power up the whole detection system, including the transducers.
- 6.2.3. Green LED must glow to indicate correct track magnet polarity and correct track magnet flux density on the surface of the track magnet. If the magnet is not pick up the
- 6.2.4. A reset/test button. The reset/test button must function as follows:
- 6.2.5. Pressing the button must light up all indication LEDs for 1 second, proving that all indications are functional.
- 6.2.6. When a neutral section has been detected and passed through, the user will press the reset/test button to clear the indications for the next detection.
- 6.2.7. The panel layout must be to the following general layout sketch. This shall comprise 4 rows of LEDs of colour other than red.

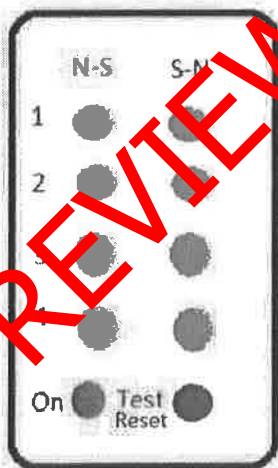


Figure 1: Panel

- 6.2.8. The LED indications will typically function as indicated in paragraph 5.3 for AC/DC changeover and as indicated in paragraph 5.2 for normal neutral sections of the 25kV AC networks.
- 6.2.9. Then traversing the voltage change station, only one LED of each row must light up in the sequence that the magnets are detected.
- 6.2.10. For 25kV neutral sections only rows 1 and 2 will be used.
- 6.2.11. For 50kV neutral sections and 3kVDC/25kVAC AC/DC changeover yards all four rows will be used.
- 6.2.12. The interpretation of the LEDs will be left to the persons manning the control panel; however, the user instructions must indicate the nominal lighting pattern for each Voltage Change Station type. If magnet orientation is detected is converse to the nominal, the appropriate response is the prerogative of the user.

- 6.2.13. A plaque shall be installed in the cab into which a paper diagram of A5 size depicting the acceptable light patterns for the various voltage systems can be inserted.
- 6.2.14. The panel shall be mounted in a position such that persons seated on the upper level in the trolley have clear access and view of the panel. The mounting position shall be such that it is not an obstruction to persons' movements in this space.

6.3. The Power Supply

- 6.3.1. The 24VDC automotive power supply on the trolley shall be the primary power source.
- 6.3.2. The circuit shall be provided with an isolating switch and electric overcurrent protection, which must be installed within easy reach of the operator.
- 6.3.3. The continuous current drawn from the 24V power supply shall be supplied. When the trolley is switched off, the system shall power down automatically to preserve battery power.
- 6.3.4. A 24/110V DC/DC converter shall be provided to operate the system if it operates at 110V DC - 110V DC being the standard for auxiliaries on a locomotive

7. TESTING AND COMMISSIONING

- 7.1. When a test installation has been completed, the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) will prepare a test site on a non-electrified line, where magnets will be set up according to the position and orientation indicated in the respective specifications.
- 7.2. The correct operation must be proven for repeatability of all arrangements to the satisfaction of the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail)

8. DOCUMENTATION

- 8.1. All circuit diagrams/calibration requirement manuals and user instructions manuals must be prepared in hard copy and PDF electronic format, and handed to the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) for approval before commissioning.
- 8.2. All mechanical and electrical type test certificates must be supplied in both hard and soft copies one of each.

9. SAFETY AND LEGAL

9.1. LEGAL REQUIREMENTS

In addition to the requirements of the referenced specifications and standards, the mandatory requirements of The Occupational Health and Safety Act and Regulations (Act No 85 of 1993) referred to as OHS Act shall be adhered to.

9.2. PRECEDENCE

In the event of any conflict between the various submitted relevant documents, the order of precedence shall be, and in consultation with Transnet Freight Rail:

- a. *Legal and safety requirements.*
- b. *This Specification.*

END

Clause by clause compliance: SPECIFICATION FOR IN-MOTION TRACK MAGNET TESTING DEVICE FOR RAIL INSPECTION TROLLEY				
Mark all clauses Yes/No. Supply reasons for non-compliance.				
1	SCOPE	Compliance to clauses		Reason for non compliance
		Yes	No	
1.2	The device must comprise of magnetic detection transducers for the correct track magnet orientation and specified minimum field strength of 130 mm above the rail of the track magnet installed at the beginning and end of the neutral sections. The device must be robust for rough handling and user-friendly as it will be industrialised.			
2	ENVIRONMENTAL FACTORS	N/A	N/A	N/A
2.1	The equipment shall be designed and rated for continuous operation under the following conditions:	N/A	N/A	N/A
	Altitude: 0 to 1980m Above Sea Level			
	Relative humidity: Up to 86%			
	Ambient temperature range: -5°C to 50°C			
	Wind Pressure : 700 Pa, on equivalent projected area normal to the direction of wind			
	Lightning conditions: Severe, Flash Density of 15/km2/year			
	Pollution: Coastal: salt laden fog, dust			
	Mechanical: Robust environment associated with steel-on-steel rail/wheel interaction, impacts up to 15g.			
	Power supply: 24Volt DC automotive power supply, subjected to power surges from vehicle's starter coil.			
4	SPECIFICATIONS AND STANDARDS	N/A	N/A	N/A
	4.1 Standards	N/A	N/A	N/A
	Construction for transducing device: The installation shall comply with appropriate Transnet Freight Rail and international standards for wiring and electrical protection on rolling stock.			

5	DESCRIPTION OF TRACK MAGNETS	N/A	N/A	N/A	N/A
6	REQUIREMENTS FOR TRACK MAGNET DETECTION DEVICE	N/A	N/A	N/A	N/A
	The permanent magnet test device must be built to comply with the following requirements:				
6.1.	The Transducer	N/A	N/A	N/A	N/A
6.1.1	The supplier must provide industrialised products proven and approved by Transnet Engineering product development division for use on locomotives.				
6.1.2	The same magnetic pick-ups must be used as in the 7000 locomotive and react on the same pulse as the track magnet relay in the locomotive				
6.1.3	It must measure in motion for all speeds up to 120 km/h.				
6.1.4	It must operate with 24 V supply. A voltage inverter may be used to convert the 24V to 110V which is the standard locomotive supply for auxiliaries.				
6.1.5	It must be able to determine and indicate the polarity of up to four consecutive track magnets and must have a reset button to reset the device when reset button is pressed.				
6.1.6	The sensors must be fitted in the centre of the rear wheels 130mm ±3mm above rail crown when measured on a trolley fitted with new wheels.				
6.1.7	Two Track magnet pick-ups must be installed in line of motion of each other, the one facing forward and the other one facing backward with the same pre-set. This is to assure that both N-S and S-N orientation will be picked up.				
6.1.8	Where applicable, the device must be designed in such a manner that it does not come loose due to vibrations and forces arising from normal in-service trolley operation.				
6.1.9	All ferrous parts of the device exposed to the atmosphere must be stainless steel or mild steel hot dip galvanised in accordance with specification SANS 121.				
6.1.10	The device shall be IP 65 rated				
6.2.	The User interface panel.	N/A	N/A	N/A	N/A

<p>The following functionalities are required</p>														
6.2.1.	A device self-test button. All LEDs must glow when self-test button pressed to indicate correct functionality of device.													
6.2.2.	A power on button. A red LED must glow when the unit is powered on. This power button must power up the whole detection system, including the transducers.													
6.2.3.	Green LED must glow to indicate correct track magnet polarity and correct track magnet flux density on the surface of the track magnet. If the magnet is not pick up the													
6.2.4.	A reset/test button. The reset/test button must function as follows:													
6.2.5	Pressing the button must light up all indication LEDs for 1 second proving that all indications are functional.													
6.2.6	When a neutral section has been detected and passed through, the user will press the reset/test button to clear the indications for the next detection.													
6.2.7	The panel layout must be to the general layout sketch as in the specification. This shall comprise 4 rows of LEDs of colour other than red.													
Figure 1: Panel														
6.2.8	The LED indications will typically function as indicated in paragraph 5.3 for AC/DC changeover and as indicated in paragraph 5.2 for normal neutral sections of the 25kv AC networks.													
6.2.9.	Then traversing the voltage change station, only one LED of each row must light up in the sequence that the magnets are detected.													
6.2.10.	For 25kv neutral sections only rows 1 and 2 will be used.													
6.2.11.	For 50kv neutral sections and 3kVDC/25kVAC AC/DC changeover yards all four rows will be used.													
6.2.12.	The interpretation of the LEDs will be left to the persons manning the control panel; however, the user instructions must indicate the nominal lighting pattern for each Voltage Change Station type. If magnet orientation is detected is converse to the nominal, the appropriate response is the prerogative of the user.													

6.2.13.	A plaque shall be installed in the cab into which a paper diagram of A5 size depicting the acceptable light patterns for the various voltage systems can be inserted.				
6.2.14.	The panel shall be mounted in a position such that persons seated on the upper level in the trolley have clear access and view of the panel. The mounting position shall be such that it is not an obstruction to persons' movements in this space.				
6.3.	The Power Supply	N/A	N/A	N/A	N/A
6.3.1.	The 24VDC automotive power supply on the trolley shall be the primary power source.				
6.3.2.	The circuit shall be provided with and isolating switch and electric overcurrent protection, which must be installed within easy reach of the operator.				
6.3.3.	the trolley is switched off, the system shall power down automatically to preserve battery power.				
6.3.4.	A 24/110V DC/DC converter shall be provided to operate the system if it operates at 110V DC - 110V DC being the standard for auxiliaries on a locomotive				
7.	TESTING AND COMMISSIONING	N/A	N/A	N/A	N/A
7.1.	When a test installation has been completed, the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) will prepare a test site on a non-electrified line, where magnets will be set up according to the position and orientation indicated in the respective specifications.				
7.2.	The correct operation must be proven for repeatability of all arrangements to the satisfaction of the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail)				
8.	DOCUMENTATION	N/A	N/A	N/A	N/A
8.1.	All circuit diagrams/calibration requirement manuals and user instructions manuals must be prepared in hard copy and PDF electronic format, and handed to the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) for approval before commissioning.				
8.2.	All mechanical and electrical type test certificates must be supplied in both hard and soft copies one of each.				

9 SAFETY AND LEGAL	9.1. LEGAL REQUIREMENTS	In addition to the requirements of the referenced specifications and standards, the mandatory requirements of The Occupational Health and Safety Act and Regulations (Act No 85 of 1993) referred to as OHS Act shall be adhered to.	N/A	N/A	N/A
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"PREVIEW COPY ONLY"

Rail Trolley - Track Magnet detector

Transnet Freight Rail reserve the right to limit quantities

Technical Requirements

Please note: All supportive documentation must be included in an appendix. Reference marks must refer to position in appendix.

Ref	Requirements	Please supply proof and supporting documents
1 Tendering	Clause by clause compliance document submitted? Non compliance motivated	
2 Operating conditions	The product shall be manufactured to meet the operational conditions as stipulated in the Track Magnet specifications?	
3 Approval	The supplier will install the product on one trolley for testing. The supplier will provide proof of compliance to the specification.	
4 Delivery lead times	The supplier provide and fully install one unit within 30 days from the date of the award of the business. The supplier will supply all the units with relevant manuals and installation procedure within 12 weeks from the day of approval of the test conducted on the first unit.	
5 Previous work expienced	The supplier shall provide proof that the track magnet relay supplied is recently supplied to TFR AC locomtives for track magnet relay and is in currently in use/approved by TE.	

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Clause by clause compliance: SPECIFICATION FOR IN-MOTION TRACK MAGNET TESTING DEVICE FOR RAIL INSPECTION TROLLEY			
Mark all clauses Yes/No. Supply reasons for non-compliance.		Compliance to clauses	
1	SCOPE	Yes	No
	The device must comprise of magnetic deflection transducers for the correct track magnet orientation and specified minimum field strength 30 mm above the rail of the track magnet installed at the beginning and end of the neutral sections. The device must be robust for rough handling and user-friendly as it will be industrialised.		
	2 ENVIRONMENTAL FACTORS	N/A	N/A
2.1	The equipment shall be designed and rated for continuous operation under the following conditions:	N/A	N/A
	Altitude: 0 to 1980m Above Sea Level		
	Relative humidity: Up to 86%		
	Ambient temperature range: -5°C to 50°C		
	Wind Pressure : 700 Pa, on equivalent projected area normal to the direction of wind.		
	Lightning conditions: Severe, Flash Density of 15/km2/year		
	Pollution: Coastal: salt laden fog, dust		
	Mechanical: Robust environment associated with steel-on-steel rail/wheel interaction, impacts up to 15g.		
	Power supply: 24Volt DC automotive power supply, subjected to power surges from vehicle's starter coil.		
4	SPECIFICATIONS AND STANDARDS	N/A	N/A
	4.1 Standards	N/A	N/A
	Construction for transducing device: The installation shall comply with appropriate Transnet Freight Rail and international standards for wiring and electrical protection on rolling stock.		

5	DESCRIPTION OF TRACK MAGNETS	N/A	N/A	N/A	N/A
6	REQUIREMENTS FOR TRACK MAGNET DETECTION DEVICE	N/A	N/A	N/A	N/A
	The permanent magnet test device must be built to comply with the following requirements:				
6.1.	The Transducer	N/A	N/A	N/A	N/A
6.1.1	The supplier must provide industrialised products designed and approved by Transnet Engineering product development division for use on locomotives.				
6.1.2	The same magnetic pick-ups must be used as in the 7E locomotive and react on the same pulse as the track magnet relay in the locomotive				
6.1.3	It must measure in motion for all speeds up to 120 km/h.				
6.1.4	It must operate with 24 V supply. A voltage inverter may be used to convert the 24V to 110V which is the standard locomotive supply for auxiliaries.				
6.1.5	It must be able to determine and indicate the polarity of up to four consecutive track magnets and must have a reset button to reset the device when reset button is pressed.				
6.1.6	The sensors must be fitted in the centre of the rear wheels 130mm +-3mm above rail crown when measured on a trolley fitted with new wheels.				
6.1.7	Two Track magnet pick-ups must be installed in line of motion of each other, the one facing forward and the other one facing backward with the same pre-set. This is to assure that both N-S and S-N orientation will be picked up.				
6.1.8	Where applicable, the device must be designed in such a manner that it does not come loose due to vibrations and forces arising from normal in-service trolley operation.				
6.1.9	All ferrous parts of the device exposed to the atmosphere must be stainless steel or mild steel hot dip galvanised in accordance with specification SANS 121.				
6.1.10	The device shall be IP 65 rated				
6.2.	The User interface panel.	N/A	N/A	N/A	N/A

The following functionalities are required														
6.2.1. A device self-test button. All LED's must glow when self-test button pressed to indicate correct functionality of device.														
6.2.2. A power on button. A red LED must glow when the unit is powered on. This power button must power up the whole detection system, including the transducers.														
6.2.3. Green LED must glow to indicate correct track magnet polarity and correct track magnet flux density on the surface of the track magnet. If the magnet is not pick up the														
6.2.4. A reset/test button. The reset/test button must function as follows:														
6.2.5. Pressing the button must light up all indication LEDs for 1 second showing that all indications are functional.														
6.2.6. When a neutral section has been detected and passed through, the user will press the reset/test button to clear the indications for the next detection.														
6.2.7. The panel layout must be to the general layout sketch as in the specification. This shall comprise 4 rows of LEDs of colour other than red.														
Figure 1: Panel														
6.2.8. The LED indications will typically function as indicated in paragraph 5.3 for AC/DC changeover and as indicated in paragraph 5.2 for normal neutral sections of the 25kv AC networks.														
6.2.9. Then traversing the voltage change station, only one LED of each row must light up in the sequence that the magnets are detected.														
6.2.10. For 25kv neutral sections only rows 1 and 2 will be used.														
6.2.11. For 50kv neutral sections and 3kVDC/25kVAC AC/DC changeover yards all four rows will be used.														

6.2.12.	The interpretation of the LEDs will be left to the persons manning the control panel; however, the user instructions must indicate the nominal lighting pattern for each Voltage Change Station type. If magnetic orientation is detected is converse to the nominal, the appropriate response is the prerogative of the user.	N/A	N/A	N/A
6.2.13.	A plaque shall be installed in the cab in which a paper diagram of A5 size depicting the acceptable light patterns for the various lighting systems can be inserted.			
6.2.14.	The panel shall be mounted in a position such that persons seated on the upper level in the trolley have clear access and view of the panel. The mounting position shall be such that it is not an obstruction to persons' movements in this space.			
6.3.	The Power Supply	N/A	N/A	N/A
6.3.1.	The 24VDC automotive power supply on the trolley shall be the primary power source.			
6.3.2.	The circuit shall be provided with and isolating switch and electric over current protection, which must be installed within easy reach of the operator.			
6.3.3.	The trolley is switched off, the system shall power down automatically to preserve battery power.			
6.3.4.	A 24/110V DC/DC converter shall be provided to operate the system if it operates at 110V DC - 110V DC being the standard for auxiliaries on a locomotive			
7.	TESTING AND COMMISSIONING	N/A	N/A	N/A
7.1.	When a test installation has been completed, the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) will prepare a test site on a non-electrified line, where magnets will be set up according to the position and orientation indicated in the respective specifications.			
7.2.	The correct operation must be proven for repeatability of all arrangements to the satisfaction of the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail)			
8.	DOCUMENTATION	N/A	N/A	N/A

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8.1.	All circuit diagrams/calibration requirement manuals and user instructions manuals must be prepared in hard copy and PDF electronic format, and handed to the Senior Engineer at Infrastructure maintenance (Transnet Freight Rail) for approval before commissioning.				
8.2.	All mechanical and electrical type test certificates must be supplied in both hard and soft copies one of each.				
9	SAFETY AND LEGAL	N/A	N/A	N/A	N/A
9.1.	LEGAL REQUIREMENTS				
	In addition to the requirements of the referenced specifications and standards, the mandatory requirements of The Occupational Health and Safety Act and Regulations (Act No 85 of 1993) referred to as OHSA shall be adhered to.				

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