INTRODUCTION

The project is for the Supply and delivery of Permanent way maintenance tools in the Gauteng Region on an “as and when” required basis for a period of 12 months

1. BACKGROUND INFORMATION

2.1 STATUS QUO

In line with the PRASA strategic objectives, Operational effectiveness, PRASA RAIL – Engineering services aims to achieve continuous service improvement and reliable network. This can be achieved through maximising focus on improving the condition of the track assets through purchasing of maintenance tools for the Permanent way department. This will allow Perway department to address the track maintenance backlog, thereafter, prioritise work in terms of short-term, safety and long-term repair work.

2.2 PROBLEM STATEMENT

The Permanent way department has been facing a significant challenge of the Perway infra maintenance due to shortage of Perway maintenance tools. This has been caused by non-approval of the refurbishment, repairing of Permanent way maintenance tools contracts as well Permanent way maintenance tools procurement contracts which has resulted in maintenance tools overused and resulted in defaults due to non-maintenance and this has also left most of the tools not working at all.

The procurement of Permanent way maintenance tools is urgently required, so that the department can be able to carry routine maintenance which will improve safe passage of trains and mitigate potential incidents and train delays.

Lack of Perway infrastructure maintenance may result in the RSR issuing a directive for correction measures and failure to do so will result in the complete closure of the line for non-compliance.

Due to the obstacles hindering the process of procuring and refurbishment of Permanent way maintenance tools and budget constraints, we have exceeded the normal procurement cycle and as a result are embarking on a project for Supply and delivery of Permanent way maintenance tools in the Gauteng province on an "as and when" required basis for the current financial year and next two years to ensure the track stays in a standard conditions and defects are minimized.

2. *OBJECTIVE OF THE PROPOSED PROJECT*

3.1 DESIRED OUTCOMES FOR CARRYING OUT THE PROPOSED PROJECT

The project aims to restore the Perway infrastructure to enable the smooth running of the train services. The strategy will be to appoint a supplier for the Supply and delivery of Permanent way maintenance tools in the Gauteng province on an "as and when" required basis for a period of twelve (12) months months to enable the maintenance of Perway infrastructure effectively.

3.2 PROJECT BENEFITS TO PRASA

The Project will assist the department to carry out routine maintenance which will ensure the track stays in a standard conditions and defects are minimized which will improve safe passage of trains and mitigate potential incidents and train delays.

This will therefore assist PRASA in achieving its primary mandate of providing a reliable rail transport service to Gauteng commuters and enable the business to collect fare revenue from those commuters. By restoring the Perway system to its design specification and train disruptions that are due to the Perway system failures will be reduced thus improving the service offering.

3.3 CURRENT MECHANISMS IN PLACE TO ADDRESS THE PROBLEM

The mechanism that is currently in use to support the business is through the repairs of old Permanent way maintenance tools that contributes negatively to the operations as it takes longer to repair and the implications are of high risk, as the response time to the call outs needs to be attended to immediately.

This also is a safety hazard as these Permanent way maintenance tools are being repaired inhouse by unqualified people therefore the department does not have capacity to carry out this type of work and the current mechanism is not sustainable.

3. SCOPE OF WORK AND AREAS OF FOCUS

4.1 SCOPE OF THE DESIRED SOLUTION

The scope of work required is for the service providers to supply and deliver Permanent way maintenance tools in the Metrorail Gauteng Province. The contract will be valid for a period of twelve (12) months for the contracted service provider to supply and deliver Permanent way maintenance tools on an “as and when” required basis in line with the demand and Perway operational requirements, respectively.

4.2 DETAILS ON THE PREFERRED SOLUTION

The preferred solution in addressing this challenge is by replacing all the damaged Permanent way maintenance tools and adding more by procuring a service provider for the Supply and delivery of Permanent way maintenance tools in the Gauteng Region on an “as and when” required basis for a period of twelve (12) months.

4.3 TARGETED AREA BY THIS PROJECT

The place of delivery of this Permanent way maintenance tools shall be the Gauteng region deports/stores and the sequence of supply shall be determined on an on-going basis based on operational requirements. This will be communicated in time to the contractor.

4.4 EXTENT AND COVERAGE OF THE PROPOSED PROJECT

The project will cover Gauteng Province region.

4.5 OTHER RELATED PROJECTS

4.5.1 Refurbishment of small plant machineries.

4.5.2 Supply and delivery of small plant machineries.

4. SPECIFICATION OF THE WORK OR PRODUCTS OR SERVICES REQUIRED

This section will cover the technical capabilities, constraints, and other specific performance required of the product or services to accomplish the supply and delivery of Permanent way maintenance tools.

5.1 TECHNICAL SPECIFICATION

4.1.1. NATURE OF WORK

This The work entails the Supply and delivery of Permanent way maintenance tools in the Gauteng Region on an “as and when” required basis for a period of twelve (12) months This is to assist the department to carry out routine maintenance which will ensure the track stays in a standard conditions and defects are minimized which will improve safe passage of trains and mitigate potential incidents and train delays. The Permanent way maintenance tools shall be classified as follows:

4.1.2. SPECIFICATIONS AND SAMPLES:

5.1.2.1 Concrete Sleeper Carrier

- Standard description:

  Manual tongs made of drop-forged steel for grabbing and lifting sleepers. It has ample handles that simplify the work and assure a perfect grab. It has been zinc-coated for increasing quality and durability.

- Technical data:
  - Width: Up to 280mm
  - Height: Up to 205 mm
  - Dimensions (Lx W x H): 1050 x 100 x 630mm
  - Weight: ~10kg

5.1.2.2 Digging Bars

- Standard description:
  - Rail signalling flags, with buttonhole for inserting the
  - 25 x 1500mm long Roughneck Digging Bar with a chisel blade. This high-strength Roughneck digging bar can be used for general prying and breaking tasks and features a pointed tip for breaking stone and concrete. Made from drop forged steel with heat-treated working areas Black finish with polished tips

5.1.2.3 Drift for Sleers Plugs

- Standard description:
  - Drift punch with steel/rubber handle, used as an aid in aligning bolts or rivet holes, prior to inserting a fastener.
- Technical Data:
  - 1.7kg
  - Rubbe/ Steel handle

5.1.2.4 Fist Clip Levers LH - RH

- Standard description:
  - Fist Clip Applicator Hand tool used for properly removal and clipping of fist fastenings

5.1.2.5 Hydraulic Jack

- Standard description:
  - The hydraulic track jack is specially manufactured for lifting the rail tracks. It has been manufactured with high quality material, which ensures high performance in all work conditions. It is easy to use and guarantees maximum safety for the operator, the device also consists of an oil tanker.
- Technical data:
  - Capacity – 8000 daN[kg]
  - Lifting height – 90 mm
  - Weight – ~18.5 kg

5.1.2.6 Jacks “A” Track

- Standard description:
  - Rail lifting jacks with rising rack bar
- Technical data:
  - Capacity – 50 KN
  - Lifting stroke 320 mm
  - Mass 26,5 Kg
  - Dimensions 620 x 320 x 220 mm

5.1.2.7 Jacks "B" Tracks

- Standard description:
  - Rail lifting jacks with rising frame
- Technical data:
  - Lifting capacity on head 16 t
  - Lifting capacity on toe 11,2 t
  - Lifting stroke 340 mm

5.1.2.8 Jim Crows Mechanical 48kg + 57kg

- Standard description:
  - Jim Crows tools for bending rails, consisting of a U-shaped or V-shaped armature with a hefty screw rod in its axis and outfitted with rollers for continuous bending
- Technical Data
  - Material : Mild Steel
  - Surface finish : Colour Coated
  - Capacity : 15 Tons
  - Screw Dia in mm : 65
  - Span in mm : 600mm

5.1.2.9 Jim Crows Mechanical 60kg

- Standard description:
  - Jim Crows tools for bending rails, consisting of a U-shaped or V-shaped armature with a hefty screw rod in its axis and outfitted with rollers for continuous bending
- Technical Data
  - Material : Mild Steel
  - Surface finish : Colour Coated
  - Capacity : 15 Tons
  - Screw Dia in mm : 65

- Span in mm : 600mm

5.1.2.10 Jim Crows Vertical (Hydraulic)

- Standard description:
  - The machine lays down the requirements of Hydraulic system commonly known as Hydraulic Jim Crow for bending/dekinking of rail section (either free rails or those in track) with minimum effort. This system is an alternative to the conventional screw type Mechanical Jim Crow

5.1.2.11 Joggle Fishplates with Clamps 48 + 57kg

- Standard description:
  - Joggle Fishplates made of hard approved steel in the shape of rail rib with bulging part in the middle to be able to fit over exothermic (Thermite) joints
  -

5.1.2.12 Joggle Plates with Clamps 60kg

- Standard description:

Standard description:

- Joggle Fishplates made of hard approved steel in the shape of rail rib with bulging part in the middle to be able to fit over exothermic (Thermite) joints

5.1.2.13 Key drifts for Cast Iron Chairs

5.1.2.14 Lights for Generator Sets

- Standard description:
  - Double portable generator outside led flood lights and a mounting frame made of aluminium/ steel. Two led flood lights are attached on the mounting frame.
- Technical description:

- Power – 600W per led light
- IP rating – IP 66
- Beam angle – 120 degrees
- Colour temperature – 6500k
- Length of mounting frame – 710 mm
- Width of mounting frame – 580 mm
- Height of mounting frame – 1890 mm

5.1.2.15 Mini Rollers

- Standard description:
  - Robust steel design roller used for moving and carrying long welded rails. Supports different rail foot widths and base body internal dimensions, it has a maintenance free ball bearing.

- Technical data:
  - Max. load – 0,7 t
  - Inside roller dimensions – 170 mm
  - Dimensions (L x W x H) – 260 x 130 x 120 mm
  - Total weight – ~ 7,3 kg

5.1.2.16 Rail Drift

5.1.2.17 Rail Tongs

- Standard description:
  - Manual Rail tongs made of drop-forged steel for grabbing and lifting rails. It has ample handles that simplify the work and assure a perfect grab. It has been zinc-coated for increasing quality and durability.

- Technical data:
  - Weight - 7.5kg

5.1.2.18 Template Rail Wear (48, 57 and 60 kg)

- Standard description:
  - This tool is a rail vertical (0 degrees) and lateral (45 degrees) wear measuring device and it reads the height dimension of the rail parallel to the base of rail on different rail types and lateral wear value at 45 degrees. The device can be easily attached to the rail base surface and fixes itself with six magnets built into its sole part and the side touch is ensured by a stopper. The vertical wear of the rail could be read from the vertical scale, and the lateral wear value is shown by the 45 degrees measuring scale as a difference from the theoretical value of the rail type. This device can be used even if there is a guard rail or a flangeway in the point to be measured.
- Technical data:
  - Height value – 130 to 185 mm
  - Side wear value – 0 to 25 mm
  - Operational temp – -25 to 90 degrees Celsius
  - Dimensions – 295 x 243 x 60
  - Weight – 1.5 kg

5.1.2.19 Track Aligners Abutus

- Standard description:
  - This obstruction less hydraulic jack is designed for the aligning and slewing of track, points and crossings. The swivel head of the ram has been designed so that it can be positioned against the web of any rail including flat bottom rails as required

- Technical Data:

Safe working load: 8t

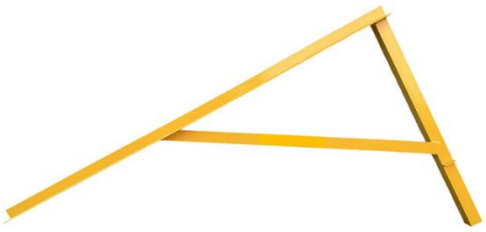
Stroke: 152mm

Weight: 24.2kg

5.1.2.20 Track Gauges

- Standard description:
  - Anodised aluminium channel section protects all sensitive parts. Sturdy and light weight track plus turnout tool that allows a quick reading of track gauge and cant on protected graduated rules. The track gauge allows measurements to be taken in grooves, guide rails dimensions from check rail to crossings and from check rail to check rail. Transporting case for ease of transport.
- Technical data:
  - Gauge – -10 mm to +65 mm, 1055mm to 1530 mm
  - Super elevation (cant) – +/- 195 mm
  - Reading accuracy – 1 division = 1mm
  - Mass – 2.4 kg

5.1.2.21 Track Squares



- Standard description:
  - For aligning sleepers and squaring the rails, it has inner and outer stops, provides insulation from rail to rail.
- Technical data:
  - Dimensions (L x W) – 1700 x 1400 mm

5.1.2.22 Track Thermometers

- Standard description:
  - It must be able to measure the exact temperature of the rail and has a sensitive magnetic probe which is complete of calibration certificate.
- Technical description:
  - Weight without probe – 200 g

- Max working detection of probe – 200

5.1.2.23 Two-wheel Rail Transporter

- Standard description:
  - It's a railway equipment used for transporting and handling all types of rails and has two wheels with a comfortable and simple parking brake.
- Technical data:
  - Capacity – 15000 daN[kg]
  - Weight – +/-270 kg
  - Track gauge – 1065 mm
  -

5.1.2.24 Four-Wheel Rail Transporter

- Standard description:
  - It's a railway equipment used for transporting and handling all types of rails and has two wheels with a comfortable and simple parking brake.
- Technical data:
  - Capacity – 15000 daN[kg]
  - Weight – +/-270 kg
  - Track gauge – 1065 mm

5.1.2.25 Wheelbarrows

- Standard description:
  - Heavy duty wheelbarrow, which can hold up to 400kg and can outlast conventional wheelbarrows! This heavy-duty wheelbarrow has a huge 100 litre capacity and is therefore ideal for highways, utilities, construction, rail and civils industries. The wheelbarrow is suitable for use with all concrete and asphalt applications. *Subject to wear and tear.
- Key Features:

- Extreme heavy-duty wheelbarrow.
- Reinforced HDPE tray holds up to 400kg!
- Strong steel frame design – long frame for maximum lift and balance
- Large 100 litre capacity for tough commercial jobs
- Pneumatic or Puncture Proof Tyre
- Suitable for all concrete and asphalt applications.
- Quieter to load due to HDPE tray – Ideal for use in urban and rough terrain

5.1.2.26 Toolbox 5 Tier Die Cast Aluminium

- Standard description:

- 5 Tier Cast Aluminium toolbox with the following

Contents:

Tier 1:

13 x Combination Wrench:
size 8 – 22

7 x Combination Wrench (SAE):
Size: 3/8″; 7/16″; 1/2″; 9/16″; 5/8″, 11/16″, 13/16″

Tier 2:

11 x 1/4″ 6pt. Flank Socket:

Size: 4, 12

9 x 1/4″ 6pt. Flank Socket (SAE):

Size: 3/16″, 7/32″ ,1/4″ ,9/32″ ,5/16″ ,11/32″ ,3/8″ ,7/16, 1/2″

1 x 1/4″ Flexible Round Ratchet Handle – 72 Teeth 150mm

2 x1/4″ Extension:
Size 50mm and 150mm
1 x 1/4″ Universal Joint
1 x Bit Holder – 1/4″x1/4″ Inhex 25mm
1 x 1/4″ Magnetic Socket Pick-Up
1 x 1/4″ Sliding T Handle – 115mm
1 x 1/4″ Spinner – 150mm

4 x 1/4″ Phillips Bit:
Size: PH.0 25mm, PH.1 25mm, PH.2 25mm, PH.3 25mm

4 x 1/4″ Pozidriv Bit:
Size: PZ.0 25mm, PZ.1 25mm, PZ.2 25mm, PZ.3 25mm
2 x 1/4″ Slotted Bit:
Size: 1.0 x 5.5 25mm and 1.2 x 6.5 25mm
1 x Magnetic QR Bit Holder – 1/4″ Hex-1/4″ Inhex 60mm

12 x 3/8″ 6pt. Flank Socket:
Sie 10 – 22
7 x 3/8″ 6pt. Flank Socket (SAE):
Size: 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 7/8″
2 x 3/8″ Spark Plug Socket:
Size: 16 63mm and 20.6 63mm
1 x 3/8″ Ratchet Handle – 24 Teeth 215mm
3 x 3/8″ Extension:
Size: 75mm, 150mm and 250mm
1 x 3/8″ Universal Joint
1 x Adaptor – 1/2″(F)x3/8″(M)

Tier 3:
1 x Water pump Plier – 250mm
1 x Long Nose Plier – 200mm
1 x Combination Plier – 175mm
1 x Diagonal Plier – 175mm
1 x 10pc Hex Key Set:
Size: 1. 27 - 10

Tier 4:

3 x Phillips Anti-Slip Screwdriver (Round Steel) (YC):
Size: PH.0, PH.1, PH.2
2 x Phillips Stubby Anti-Slip Screwdriver:
Size: PH.1 and PH.2

4 x Slotted Anti-Slip Screwdriver (Round Steel) (YC):
Size: 0.5 x 3, 0.8 x 4, 1.0 x 5.5 and 1.2 x 6.5
2 x Slotted Stubby Anti-Slip Screwdriver:
Size: 1.0 x 5.5 and 1.2 x 6.5

Tier 5:
1 x Mini Hacksaw
2 x Saw Blade 150mm for 66302
1 x Utility Knife (Incl. 3pc Blades)
1 x 5m Measuring Tape
1 x Engineer Hammer – 300gw
1 x Rubber Hammer – 520gw
1 x Shifting Spanner – 29mm (250mm Long)
1 x Locking Plier – 250mm
3 x Pin Punch:
4 x 190mm
5 x 200mm
6 x 210mm
1 x Chisel – 15 180mm

5.1.2.27 MC2 Spanner Set

5.1.2.28 Spanner Set Combination 1B 6 – 32 mm

5.1.2.29 Extension Lead 1.5 x 30m Double Socket

5.1.2.30 LLC Crucible Extension Sleeve

- Standard description:
- Standard description:
  - LLC Crucible extension sleeve for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.31 LLC Crucible Clamping Ring

- Standard description:
  - LLC Crucible clamping ring for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.32 LLC Crucible Cover

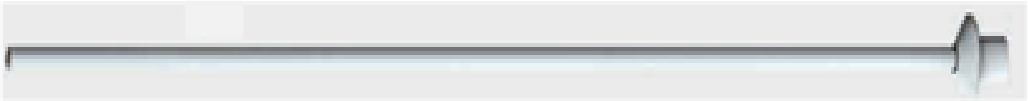
- Standard description:
  - LLC Crucible cover for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.33 LLC Thimble Drifter

- Standard description:
  - LLC Thimble Drift for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.34 LLC Thimble Applicator

- Standard description:
  - LLC Thimble Applicator for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**



5.1.2.35 LLC Tripod

- Standard description:
  - LLC Tripod for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.36 Universal Rail Clamp

- Standard description:
  - Universal Rail Clamp for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.37 Burner Holder, Screw Type

- Standard description:
  - Burner Holder for Railway Thermite Welding Purposes.
  - The equipment should be compatible with

"SKV" Welding Process

5.1.2.38 Slag Pans

- Standard description:
  - Slag Pan for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.39 Slag Pan Holder

- Standard description:
  - Universal Rail Clamp for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

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5.1.2.40 Pair of SUC 40kg Mould Shoes

- Standard description:
  - Pair of SUC 40kg Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.41 Pair of SUC 48kg Mould Shoes

- Standard description:
  - Pair of SUC 48kg Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.42 Pair of SUC 57kg Mould Shoes

- Standard description:
  - Pair of SUC 57kg Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.43 Pair of SUC 60kg Mould Shoes

- Standard description:
  - Pair of SUC 60kg Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.44 Pair of SUC 48/57 kg Junction Mould Shoes

- Standard description:
  - Pair of SUC 48/57 kg Junction Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.45 Pair of SUC 57/60 kg Moulding Shoes

- Standard description:
  - Pair of SUC 57/60 kg Junction Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.46 Pair of SUC 48 kg Wide Gap Mould Shoes

- Standard description:
  - Pair of SUC 48 kg Wide Gap Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.47 Pair of SUC 57 kg Wide Gap Mould Shoes

- Standard description:
  - Pair of SUC 57 kg Wide Gap Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.48 Pair of SUC 60 kg Wide Gap Mould Shoes

- Standard description:
  - Pair of SUC 60 kg Wide Gap Mould Shoes for Railway Thermite Welding Purposes.
  - The equipment should be compatible with **"SKV" Welding Process"**

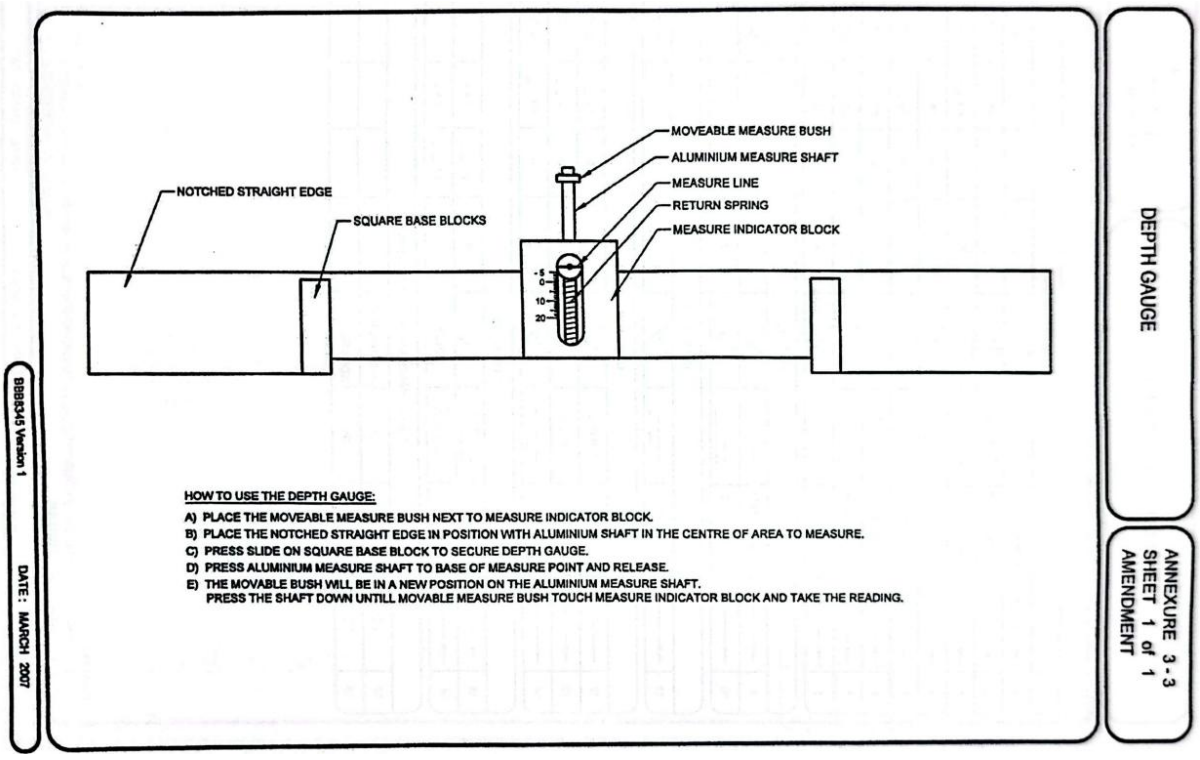
5.1.2.49 Distance Gauge

- Standard description:
- Distance Gauge for Railway Thermite Welding Purposes.
- The equipment should be compatible with **"SKV" Welding Process"**

5.1.2.50 Gap Gauge

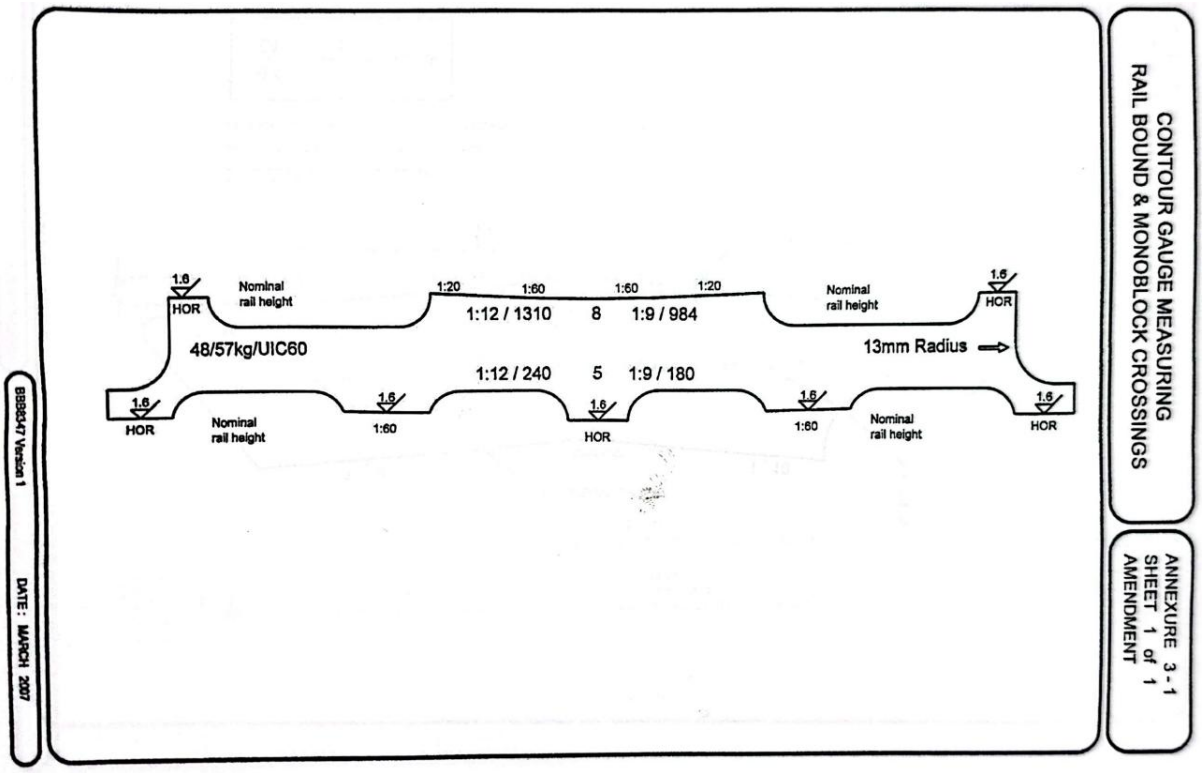
5.1.2.51 Depth Gauge for Crossing

- Standard description:
  - Depth Gauge for Crossings as per the annexure below.



5.1.2.52 Contour Gauge for Rail bound Crossing

- Standard description:
  - Contour Gauge for Rail bound Crossings as per the annexure below.



5.1.2.53 Tapper Gauge 0,1mm – 4,5mm

- Standard description:
  - Tapper Gauge as per the attached picture

5.1.2.54 Small Angle Grinder

- Standard description:
  - 18v Cordless Brushless Angle Grinder with brushless motors feature improved efficiency, high performance, longer lifespan, reduced maintenance, and reduced heat and noise.
- Technical data:
  - Voltage Input: 18 V Li-Ion
  - Wheel Diameter: 45 MM
  - No Load Speed: 8 500 RPM
  - Frequency: 50 HZ

- Disc Diameter: 115 MM
- Guard Protection: YES
- Handle Side: Adjustable
- Switch Position: Top
- Battery 18 V 4.0 AH

5.1.2.55 Large Angle Grinder

- Standard description:
  - Superior heavy-duty motor with outstanding durability capable of performing multitask like cutting grinding, deburring, finishing, polishing, or/and carving
- Technical data:
  - Power Output: 2 600 W
  - Voltage Input: 230 V @ 50 HZ
  - Wheel Diameter: 38 MM
  - No Load Speed: 6 600 RPM
  - Frequency: 50 HZ
  - Guard Protection: YES
  - Handle Side: Left or Right
  - Switch Position: Rotatable
  - Sound Level: 101 DB (A)
  - Cable Length: 2.5 M

5.1.2.56 Electrode Oven

- Standard description:
  - Portable electrode holding oven Mild steel construction with hammertone baked enamel finish Robust construction with lockable door
- Technical data:
  - Wattage – 450w
  - Voltage – ac220v
  - Temperature – 50°c – 300°c
  - Capacity – 10kg
  - Size – height – 570mm

– width – 230mm

– depth – 160mm

- Weight – 4.2kg

5.1.2.57 Lightweight push trolley

- Standard description:
  - Light metal constructed push trolley designed for transporting railway materials on track. It has a corrugated anti-slip platform which makes the equipment strong and lightweight. On the platform there are some attacks to connect more trolleys by means of a tow bar, the trolley has steel wheels, keyed on roller bearings and a special plastic bushing. Rail to rail insulation and easy to use parking brake.

- Technical data:
  - Capacity – 2000 daN[kg]
  - Weight – 145 kg
  - Dimensions (L x W x H) – 1890 x 1230 x 890 mm
  - Gauge – 1065 mm

5.1.2.58 Rail carrying roller

- Standard description:
  - Robust steel design roller used for moving and carrying long welded rails. Supports different rail foot widths and base body internal dimensions, it has a maintenance free ball bearing.

- Technical data:
  - Max. load – 0,7 t
  - Inside roller dimensions – 170 mm
  - Dimensions (L x W x H) – 260 x 130 x 120 mm
  - Total weight – ~ 7,3 kg

5.1.2.59 Hydraulic rail bender (48, 57 60kg)

- Standard description:
  - Device used to bend the rail made of light alloy frame for easier change of position, ergonomic operations in all work positions, universal use due to replaceable rail claws and return of piston by spring force.
- Technical data:
  - Maximum compressive force – 550 KN
  - Piston travel – 100mm
  - Dimensions (L x W x H) – 880 x750 x 240 mm
  - Total weight – ~74 kg

5.1.2.60 Poinjar (Petrol Driven Sleeper Tamper for Railroad Applications)

- Standard description:
- It's Engine:
  - 90cc, air cooled, single cylinder, two strokes
  - Fuel mixture: 2% or 1/50
  - Octane 90 – 100
- Impact Energy:
  - 40 Joules at 1620 blows/min
- Tie tamper:
  - Shank: 32 x 165mm
  - Length: 554mm
  - Width: 100mm
  - Weight: 4,3kg

5.1.2.61 Lightweight abrasive Disc Cutter

- Standard description:
- Engine:
  - Two stroke 35 cc Internal combustion engine
  - Fuel mixture: 2% or 1/50
  - Octane 90 – 100
- Rail clamp:

- Cast aluminium with rail clamp.
- Compatible to 48, 57 and 60 kg rail profiles

- Disk size:
  - 350 – 400 mm

5.1.2.62 Impact Wrange

- Standard description:
- Engine:
  - Two stroke 35 cc Internal combustion engine
  - Fuel mixture: 2% or 1/50
  - Octane 90 – 100
- Application:
  - Spot maintenance for vertical and horizontal fastenings
  - Torque adjustment control up to 2600 N.m
  - Centrifugal clutch
  - Square inch drive

5.1.2.63 Lightweight Rail Drilling Machine

- Standard description:
- Engine:
  - Four stroke Internal combustion engine
  - Octane 90 – 100
  - Automatic/manual feeds
- Universal vice:
  - Multi hole positions for 48, 57 and 60 kg rail profiles
  - Interchangeable rail forms to ensure accurate fixing and sturdy clamping
- Drilling diameter:
  - Up to 38mm

5.1.2.64 Sleeper Drilling Machine

- Standard description:
- Engine:
  - Four stroke 3,7 hp Internal combustion engine
  - Octane 90 – 100
- Drilling:

- Diameter up to 33mm
- Vertical or at rail cant 1/20 and 1/40
- Adjustable drilling depth up to 200mm

- Trolley with outrigger

- Octane 90 – 100

5.1.2.65 Electric Poinjar

- Standard description:
  - Electric rail tamper unit is used for tamping railway line with ballast or gravel with 220V/380V motor, it can be equipped 4 units as a tamping team with one set of generators to work on railway line or turnout parts.

- Technical data:
  - Voltage：220V
  - RPM of motor: 2850r/min
  - Tamping force: 4.3KN
  - Tamping amplitude: 1.5mm
  - Tamping frequency: 150Hz
  - Weight: 20kg
  - Dimension: 1050mm×350mm×215mm

5.1.2.66 Industrial Grade Bush Cutters

- Standard description:
- Displacement:
  - 41.66 cc
- Power output:
  - 2.0kw/2.7hp.
- Weight:
  - 8.5kg

5.1.2.67 13.5Kva Generators

- Standard description:
- Engine:
  - Briggs and Stratton Vanguard 2 cylinder, 35hp
  - Rpm 3000
- Output:
  - SINCRO GENERATOR, 3 phase model, FT 2 MER
  - Max AC output 13,5kVa
  - 50 Hz
  - Voltage 400 V 3 phase ±15%, 19.5 amp
  - Voltage 220 V single phase ±15%, 33.7 amp
  - AC Circuit Breakers 25 Amp
  - AC plugs 2 x 15 Amp
- Weight:
  - ± 55 kg

5.1.2.68 Industrial Grade Chainsaws

- Standard description:
- Displacement:
  - 31.88cc
- Engine power
  - 1.4 kw
- Powerhead:
  - 3.3kg
- Fuel capacity:
  - 270cc
- Chain oil capacity
  - 220cc

5.2 AREA OF OPERATION AND ACCESS OF SITE WORK.

Permanent way maintenance tools shall be supplied and delivered to Gauteng region stores/deports either in Johannesburg or Pretoria, this will be communicated to the contractor by the project manager or his/her representative.

5.3 PRODUCT REQUIREMENTS.

5.3.1 All Permanent way maintenance tools to be supplied must be SABS and ISO compliant and must meet with the technical specification provided.

5.3.2 All Permanent way maintenance tools to be supplied must have a 24-month warranty, with a 24 months maintenance/repair plan and a lead time to repair of five working days.

5.4 INFORMATION TO BE SUBMITTED BY THE SUPPLIER

Details of at least three (3) manufacturer of Permanent way maintenance tools they wish to supply and a broacher before purchasing of this Permanent way maintenance tools.

5.5 DELIVERY AND PACKAGING

All Permanent way maintenance tools must be parked and delivered with care and any damage occurred during transit is of the supplier's account and PRASA will not accept any damaged tools or be liable for such.

5.6 GENERAL

a. The supplier is responsible for the safekeeping of all tools in his possession. Any loss of, or damage to tools (while in his possession) will be for the supplier's account.

b. It is a requirement of this contract that the supplier supply PRASA with sufficient prove of relevant previous experience of supplying of the Perway maintenance tools listed on this contract before the contract can be awarded.

c. The supplier shall supply PRASA with details of at least three (3) manufacturer of tools they wish to supply and a broacher before purchasing of this tool. This is to be submitted with the tender document.

d. PRASA will verify all the provided references and manufacturers.

e. PRASA do reserve the right to verify quality of all supplied tools to see if they conform

with the prescribed specifications. Any irregularities will not be accepted by PRASA, who have the right to cancel contract/agreement.

5.7 PROJECT SPECIFIC SAFETY RELATED REGULATIONS

5.7.1 All work in this contract shall comply with the Occupational Safety Act No 85 of 1993, National Environmental management Act 107 of 1997 Act and construction regulation 2014. These items shall all be included in the tendered rates.

5.7.2 A copy of the act as well as an approved safety file shall be kept on site for the duration of the project.

5.7.3 The supplier shall comply with all applicable legislation and PRASA's safety requirements adopted from time to time and instructed by the Project Manager. Such compliance shall be entirely at the contractor's cost and shall be deemed to have been allowed for in the rates or total prices in the contract.

5.7.4 The supplier shall report all incidents in writing to the Project Manager. Any incident resulting in the death of or injury to any person on the works shall be reported within 1 hour of its occurrence and any other incident shall be reported within 24 hours of its occurrence.

5.7.5 All personnel employed by the supplier shall have undergone a Health and Safety Induction.

5.7.6 Permits to work (in line with Covid-19 regulations) shall be issued at the cost of the supplier to all personnel on that shall be signed and stamped by the authorized PRASA Official responsible for Risk Management.

5.7.7 The supplier shall ensure that all COVID - 19 protocols are adhered to.

5.7.8 The supplier shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.

5.7.9 The safety file will be approved only after all the requirements on the checklist are met. WITS_LIB/RISK_MGT/SHE File Checklist (version 3) is attached in

this regard.

5.7.10 All work shall at all times comply with the E7/1 Specification attached hereto.

5.7.11 Normal protection measures in accordance with the Protection Manual shall apply.

5.7.12 An effective safety procedure to be followed by all personnel on any work site in the case of approaching rail traffic shall be compiled by the supplier and implemented before any work commences. This procedure shall be updated whenever the need arises, and any changes shall be communicated to all employees on a works site before work proceeds.

5.7.13 The Supplier shall be responsible for the safety of personnel on site.

The following shall also form part of the safety plan:

- Transportation of equipment and personnel.
- Transportation, storage and handling of hazardous equipment
- The site access certificate shall only be issued (to the successful bidder) after the evaluation and approval of the safety file.

5.7.14 It is the requirement of this contract that the supplier should provide PRASA with a detailed safety plan prior to being issued with a site access certificate, in accordance with the latest version of the OHS Act and the SPK7 and the E4E.

5.8 GUARANTEE

The supplier will be required to guarantee all the Permanent way maintenance tools to be supplied against all defects attributable to faulty manufacture, workmanship and quality of materials for a period of 24 month. Tools that fail in service before the expiration of the guarantee period due to such faults shall be replaced free of charge at the initial point of delivery.

5.9 ACCEPTANCE OF MACHINERIES AT POINT OF DELIVERY

All tools supplied must be completely new as per the manufacturer specification and will be tested by the Technical Manager to ensure that they meet with the required technical specifications.

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5.10 PAYMENTS CERTIFICATE

5.10.1 On or after the assessment date, the Supervisor and the supplier will together assess the quantities of the progress on each item in the Bill of Quantities and complete the Progress Assessment Detail form, where after the Progress Assessment Certificate will be issued.

5.10.2 The supplier shall then submit a VAT invoice and attach the above Progress Certificate for payment by the Employer.

5.10.3 Claims for payment will only be made on a monthly basis and payments will be made within 30 days of approved invoices.

5.10.4 The supplier to provide the Employer with the necessary details regarding banking details to enable the Employer to make electronic payments.

5.11 BOND AND GUARANTEES

5.11.1 Surety in the amount equal to either ten percent or five percent of the contract price, as elected by the supplier, shall be provided by the supplier for the due and faithful performance by him in terms of the Contract. Such security shall be in the form of:

- Government or approved Municipal stocks in negotiable form, or
- A deed of suretyship furnished by an approved bank, insurance or guarantee corporation in such form as may be prescribed by PRASA, provided however that the Project Manager may, upon written application by the supplier, return to the supplier the whole or part of such security held by PRASA

5.11.2 All machinery to be supplied must have a 24-month warranty, with a 24 months maintenance plan and a lead time to repair of five working days.

5.11.3 Completion certificate will be given in writing after all contract obligations are met and approved by PRASA Project Manager.

5.11.4 Corrective action to be taken by the Supplier during the guarantee period at his/her own cost and expense.

5.11.5 Project Manager will, where practicable be entitled to take corrective action of its own should the supplier not be able to give immediate attention at the time a fault occurs and recover from the contractor any costs and expenses reasonably incurred by it in doing so as per penalty clauses.

5.12 PRICING OF THE WORKS

5.12.1 The supplier shall supply an item list with prices in South African currency with their tender document and Prices shall be inclusive of transport to the point of delivery inclusive of loading and off -loading in Gauteng Province and must also be VAT inclusive at an ex-works and in DDP (deliver duty paid) and must be valid until the duration of contract.

5.12.2 The supplier shall also indicate a minimum order quantity as well as lead time for each item.

5.12.3 All items to be priced as per the provided bill of quantities.

5.13 PENALTIES

5.13.1 If the supplier fails to complete the Services within the time as stipulated in this Contract for completion of Services or a part or portion of Services, the Supplier shall be liable to the Employer for an amount calculated at 0.05% of the Contract Price per delayed Day per order, which shall be paid for every day which shall elapse between the time for due completion and completion of the relevant Services. However, the total amount due under this sub-clause shall not exceed the maximum of 10% of the Contract Price.

5.13.2 The imposition of such penalty shall not relieve the supplier from its obligation to complete Services or from any of its obligations and liabilities under the Contract,

5.13.3 PRASA may set off or deduct from the fees due to the supplier any penalty amounts due and owing by the Contractor in terms of clause 5.13.1

5.14 APPLICABLE SPECIFICATIONS

The documents forming the contract are to be taken as complimentary to each other. In case of any discrepancy or inconsistency between contract documents, the order of precedence will be:

a) Manual for Track Maintenance (2000).
b) Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act (Act 85 of 1993) and Applicable Regulations (E4E); including any subsequent amendments EN13674-1, UIC 860-0, UIC 8610-1 or the latest equivalent standard.
c) Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment (SPK7/1).
d) Railway Safety Regulator Act (Act 16 of 2004).
e) Norms, Standards and Guidelines.