



SPECIFICATION / SCOPE OF WORK

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:

1.1 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

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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.

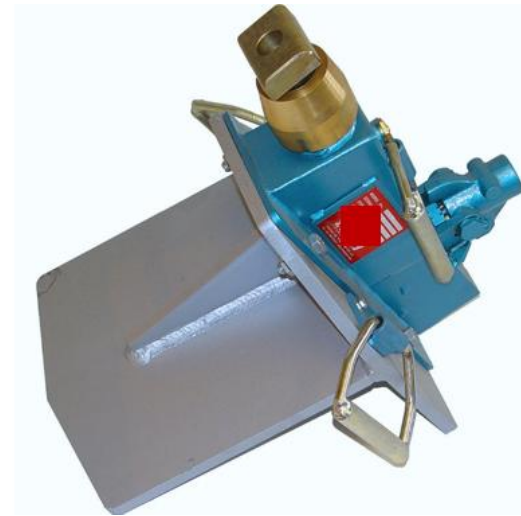




- Technical data:
 - Height value – 130 to 185 mm
 - Side wear value – 0 to 25 mm
 - Operational temp – -25 to 90 degrees Celsius
 - Dimensions – 295 x 243 x 60
 - Weight – 1.5 kg

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

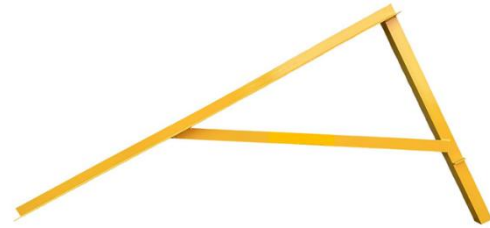




- Super elevation (cant) – +/- 195 mm
- Reading accuracy – 1 division = 1mm
- Mass – 2.4 kg

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 x 1/4" 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:

Size 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 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



5.1.2.28 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

5.1.2.29 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 $\pm 15\%$, 19.5 amp
 - Voltage 220 V single phase $\pm 15\%$, 33.7 amp
 - AC Circuit Breakers 25 Amp
 - AC plugs 2 x 15 Amp
- Weight:
 - ± 55 kg

