

PASSENGER RAIL AGENCY OF SOUTH AFRICA

Supply and delivery of tools of trade

SPECIFICATION AND SCOPE OF WORK

1. General

- The contractor shall be responsible for the Supply and delivery of tools of trade.
- The area of delivering the above-mentioned items is Capital Park Depot, Germiston Depot, Roodepoort Depot, Shosholoza Myl Junction and Various locations within Gauteng.
- All Electrical tools to be delivered for this contract shall be compliant to SANS and or IEC standards.
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2. Subcontracting

- The Contractor shall not make use of any sub-Contractor to perform the works or parts thereof without prior permission from the Project Manager.

3. Financial

- Payments shall be made for fully functional equipment only, i.e, all work completed.
- All prices quoted shall be fixed and firm for the duration of the contract
- All prices quoted shall include transportation and delivery of the items across the abovementioned locations.
- Penalties shall be applicable for late completion of work and the rate shall be as stipulated in the contract terms and conditions for each day the completion is delayed. Terms and conditions in this contract are applicable in this regard.
- Rates supplied in the BOQ shall be used to calculate the final payment for equipment.

3.2. General Specifications of the electrical tools for this contract.

- All Electrical tools to be delivered for this contract shall be compliant to SANS and or IEC standards. Non-complying tools will not be accepted.
- Samples of all electrical tools shall be sent to the Electrical department before delivery.
- All Electrical tools shall be supplied with Manuals and or catalogues.
- All Electrical tools to be delivered shall have a Warrantee of 12 months and Guarantee in line from the manufacturer.
- Payment shall be done for every tools delivered. No payment will be made for undelivered and non-compiling tools to the SANS and or IEC standards.

4. Specifications for the Electrical tools

4.1. Bolt cutters 900mm

- Weight: 4.94kg
- Pack Dim: 920.00mm x 190.00mm x 40.00mm

4.2 Cable wire grips 16-32mm

- Capacity: 30 KN(3TON)
- MIN.CABLE :16 mm
- Max. Cable: 32 mm
- Jaw Length:120 mm
- Weight: 2.4kg
- Eye Size: 32 mm x 42 mm

4.3 Lever hoist 1 ton x 1.5m

- 1 Ton x 1.5m

4.4. Lever hoist 3 ton x 1.5m

- 3 Ton x 1.5m

4.5. Hydraulic feeder crimping machine Izumi. Complete with jaws and petrol driven pump

- Reservoir Capacity 145 cc

- Force at Die Face 106kN
- Size 610 (l) x 150 (w) mm
- Weight 6.3kg

4.6. Webbing sling. Straight pull 1000mm x 50mm

- EN 1492 – 2 : 2000,
- SANS 94 – 2 : 2003,
- Factor of Safety 7 to 1

4.7. Contact wire Straightening device. CEMBRE MSGW

- Diameter: 14.5mm
- Height: 297mm
- Length: 431mm
- Weight: 6.8kg
- Width: 234mm

4.8. Chain sling endless 500mm

- Standard: Q/JL018.
- Safety assurance: 4 times safety factor

4.9. Tool box complete as per list for electricians at Signal Supply

- Electrician tool box complete.

4.10. Gas hose complete with regulator and flame torch

- With Torch Burner Regulator Gas Hose Connector & 2M,5M Hose.

4.11. Extension cord complete on reel 25m long with double plug

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4.12. Electrical Blower

- Continuous rating input :600W
- Air volume: UB1102: 4.1m³/min UB1103: 0-4.1m³/min

- Air pressure: UB1102: 5.7kPa(0-580mm H2O) UB1103: 0-5.7kPa (0-580mm H2O)
- No load speed (r/min): UB1102: 16,000r/min UB1103: 0-16,000r/min
- Overall length: 479mm
- Net weight / Power supply cord: 2.0kg / 2.5m.

4.13. Drilling Machine 1200w - cordless complete with charger and battery

- 1200w Cordless Impact Drill Driver With 3.0 Ah Battery & Charger

4.14. Socket Set Gedore (6-32mm)

- Chrome Vanadium Steel
- Chrome Plated Polished Rings.
- 26 Piece - Sizes: Sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32mm.

4.15 Spanner set Gedore (6-28mm)

- Chrome Vanadium Steel
- Chrome Plated Polished Rings.

4.16. Angle Grinder 900w (Makita) - cordless complete with charger and battery

- Battery voltage 18 + 18 V
- Battery capacity 6.0 Ah
- Running speeds 6.000 rpm
- Internal opening size 22.23 mm
- Disk diameter 230 mm
- Noise 99 dB(A)
- Vibration Grinding 2.5 m/s² - 7.0 m/s²
- Vibration Deviation(K) 1.5 m/s²
- Dimensions (WxHxD) 499 x 250 x 158 mm
- Weight 6.2 kg

4.17. Bushcutter petrol - 50CC

- Engine Two-stroke: air-cooled Engine Low Emission EMC Fuel Saving Engine 28 –

49%

- Displacement: 50.2 cc
- Max. engine output, kW/rpm: 1,75/7500
- Clutch Engagement Speed (rpm): 2500 rpm (± 120).
- Torque: 2.8 Nm / 5500rpm
- Tank Fuel capacity: 1 Liter
- Fuel Mix: 25: 1 (25 parts of fuel to 1 part 2-stroke oil)
- Fuel Type Regular: Unleaded 95
- Cutting Head: Aluminium
- Starting method: Recoil Pull Start
- Handle: Bike (Bullhorn)
- Gear Box: Heavy Duty
- Net weight: 8 kg
- Shaft: Heavy Duty Square

4.18. Pallet Jack

- Size: 1220L x 685W
- Open/Closed Height: 85/195mm
- Wheel Size: 180x50/80x70
- Wheel Type: Nylon
- Weight: 130kg
- Load Cap: 5000kg

4.19. Thermometer

- Temperature range -20°C to 320°C
- Temperature resolution $\pm 1^\circ\text{C}$
- Distance to Spot 12:1
- Power supply: 9V

4.20. Portable Welding Machine

- Welding Machine Type: Inverter
- Portable :Yes

- Power Requirement :230V
- Current Rating :140 A
- Packaging Type :Box
- Width :13 cm
- Height: 20 cm
- Weight :4.2 kg

4.21. Screwdriver Set

- Screwdriver Set

4.22. Angle Grinder 2500w (Makita)

- 230mm 2500w

4.23. Portable Battery Charger

- 12V Car Jump Starter Pack Booster Battery Charger Emergency Power Bank 2000A

4.24. Winch heavy duty

- Electric Winch
- Car Trailer Winch
- 3-Stage Planetary Gear
- 6.0 HP
- 10001 - 12000 lbs
- 41 - 50 lbs
- Slow - 0 to 4 fpm
- Wireless Remote
- Synthetic Rope
- Bulldog Winch

4.25. Live line testers 3kv DC

- Detects HV voltages and compares phases
- Self powered operation
- Indicates the presence of live voltage on circuits up to 3.3kV
- Positive phasing test

- High voltage measurement
- Suitable for both dry and wet conditions
- High quality fibreglass rod
- Proving and repeater units
- DC version available
- High immunity to interference field

4.26. Live line testers 11kv AC

- Dual purpose HV detection and phase comparison
- Self powered operation
- Indicates the presence of live voltage on circuits up to 11kV AC
- Positive phasing test
- High voltage measurement
- High quality fibreglass rod
- Proving and repeater units
- DC version available
- High immunity to interference field

4.27. Feeder come along 800mm

- High Pulling Capacity: 5 tons (10,000 lbs) for horizontal pulling and 2 tons (4,000 lbs) for vertical lifting.
- Durable Construction: Steel construction with zinc-plated hooks and gears for longevity and rust resistance.
- Easy Operation: Features a double-gear manual winch and a powerful ratcheting system for smooth, consistent pulling action with minimal effort.
- Safety Features: Equipped with a safety latch on all hooks to prevent accidental slippage.
- Versatile Use: Ideal for pulling logs, stumps, or rocks, as well as construction and automotive recovery tasks.

4.28. Calibrating Machine 4000A

- Input ratings, 400V, 50Hz
- Calibration capacity up to 4000Amp
- Fitted in trailer

4.29. Multimeter Top tronic TBM 805

- DC Voltage (V) : 400mV, 4, 40, 400, 1000V
- AC Voltage (V) 400mV, 4, 40, 400, 1000V
- DC Current (A) 400μ, 4000μ, 40mA, 400mA, 4.10A
- AC Current (A) :400μ, 4000μ, 40mA, 400mA, 4.10A
- Resistance (Ω) :400, 4k, 40k, 400k, 4M, 40MΩ
- Capacitance (F) ; 500nF, 5μ, 50μ, 500μ, 3000μF
- Frequency (Hz) 50, 500, 5k, 50k, 500k, 1MHz

4.30. 10000V Megger (Insulation Tester) Toptronic TIN 6D

- (Graphic) 10kV
- 20 Insulation test voltages (500V - 10kV)
- Heavy duty carry case
- Silicone test leads
- Anti skid/vibration absorbing enclosure
- Live circuit warning
- Auto discharge
- Insulation time interval test up to 99 sec selectable Model Specification: ·
Dimensions (mm): 330(L) x 260(W) x 150(H) · Weight: 3,6kg · Power source: 8 x
1.5V C Batteries.

4.31. Floodlight - 200W LED Modular Heavy Duty- With Telescopic Tripod Stand

- 200W SMD LED's
- PF , 0.95
- 120° Beam Angle
- AC 185V – 265V
- EMC Approved
- IP67 Isolated Driver
- IP66 Housing

- Resistant to Rust
- Heavy Duty Aluminium Frame
- 5 Year Warranty
- Dimensions: 423mm(W) x 323mm(H) x 75mm(D)

4.32. Cordless Impact Drilling Machine 12 Volt Rechargeable.

- Voltage 12V
- Capacity 3AH
- Max Torque 57NM
- No load speed 0-425/1500rpm
- Weight 0.97 Kg

4.33. Rotary Hammer Drilling Machine with drills

- Battery type : Lithium ion
- Voltage: 18V
- No load speed: 1550 rpm
- Length: 38CM
- Width: 16cm
- Weight: 2.3Kg

4.34. Drilling Machine with 16mm keyless Chuck - 850 Watt

- Vario (V)-Electronics for working at customised speeds to suit various application materials
- Thumbwheel for Speed Preselection
- Robust die cast aluminium gear housing for optimum heat dissipation and long service life
- Rotating carbon brush bridge for maximum performance even in anti-clockwise operation, e.g. for the removal of stubborn screws
- Marathon-motor with dust protection for long service life
- S-automatic safety clutch: mechanical decoupling of the drive for safe working should the tool stop unexpectedly
- Forward and reverse rotation

- Spindle with hexagonal recess for screwdriver bits for working without chuck
- Cable-protecting ball joint for optimal freedom of motion when working

4.35. Earth Leakage Tester - Toptronic TEL 1 TLB

- SANS164-2 (Type N) plug socket compatible
- Ready-board compatible
- LED wiring integrity indication
- Faulty Earth Detector (LCD)/Live on earth
- ELCB Tester (10-35mA)
- Includes SANS 164-1: 16A – 3 PIN adapter plug

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4.37. Phase Rotation Meters - Toptronic T606

- Toptronic 3 Phase Indicator & Rotation Neon Indicator
- Handy · Rugged and compact
- Waterproof Ip24 · Internal fuses
- Open phase and phase sequence
- Pouch included Model Specification:
- Dimensions (mm): 102(L) x 78(W) x 33(H)
- Weight: 212g

4.38. Insulation Resistance Testers 250/500/1000 Volt - T 1800

- Multiple insulation test voltages: 50, 100, 250, 500, and 1000 V
- Insulation tests from 0.01 MΩ to 2.0 GΩ
- Includes live circuit detection to prevent insulation test if voltage >30 V is detected

- To Include auto-discharge of capacitive voltage for added user protection
- Measure AC/DC voltage from 0.1 to 600 V and resistance from 0.01 Ω to 20.00 k Ω
- Provides lo-ohms earth-bond continuity (200 mA)
- Simplifies repetitive or hard-to-reach testing with the remote test probe
- Saves battery power with auto power off
- Presents results on a large, backlit display
- Features CAT IV 600 V over voltage category rating
- Runs on four AA alkaline batteries (NEDA 15 A or IEC LR6) for at least 1000 insulation tests.

4.39. Insulation Resistance Testers 10,000 Volt - TIN 6D

- 20 Insulation test voltages (500 V - 10 kV)
- Heavy duty carry case
- Silicone test leads
- Anti skid/vibration absorbing enclosure
- Live circuit warning
- Auto discharge
- Insulation time interval test up to 99 sec selectable

4.40. Steel Drill Sets

- DRILL SET 29PC 1/16-1/2X1-64
- IMPERIAL SET (FULLY GROUND - M2)" includes a variety of sizes from 1/16" up to 1/2" by 1/64" increments,
- Catering to a wide range of drilling needs.

4.41. Socket Sets 1/2 Drive - D19 TMZ

- Manually operated 1/2" sockets and accessories
- Supplied in blue powder coated, D19 T steel box
- Dimensions: 435x170x50mm
- 27 pieces.

4.42. Hydraulic Hand Crimping Plier Complete with Dies - 25,50,70,95,120,150 and

185mm.

- Built-in bypass relief valve for constant compression
- Head rotates 180°
- Force at die face: 5.2 metric ton
- Accepts BEKU type dies
- Dies sold separately

4.43. Extension Cords Complete with 50m 1.5mm 3 core

- Complete with 50m 1.5mm 3 core

4.44. Soldering Irons Electric - 25 Watts

- Ideal for delicate work on audio equipment, radios and TV servicing.
- Straight nickel plated chisel.
- Copper tip.
- Chisel point.

4.45. Soldering Irons Electric - 120 Watts

- Suitable for heavy duty soldering.
- Bent nickel plated copper tip.
- Chisel point.

4.46. Soldering Irons Gas

- Soldering Iron Kit Gas 20-100W - TP100K

4.47. Angle Grinder 2600 Watt (Big)

- 230mm 2600w

4.48. Angle Grinde 800 Watt (Small)

- 800W -115mm slide switch small angle grinder

4.49. Drills Steel

- 25 pieces set

4.50. Steel Tape Measure 3M

- 3 meters

4.51. Hacksaw Frame - Eclipse 90T

- Eclipse 90T

4.52. Hammer Ball PEIN 700 Gram

- 700g

4.53. Step Ladder Aluminium

- Fiberglass stiles ensure workers are isolated from the ground, making the product suitable for electrical work
- Outstanding durability
- Lightweight and effortless action to deploy
- Anti-slip round rungs
- Strongbox construction results in dramatic reduction in twist and sway
- Non-slip surface ensures safety in all weather
- Conventional Latch
- All-weather resistant
- Specs 1:
 - Closed Height: 3.9m
 - Extended Height: 6.3m
 - Approx. Weight: 23 kg
 - Load Rating: 150 kg
- Specs 2:
 - Closed Height: 4.5m
 - Extended Height: 7.5m
 - Approx. Weight: 27 kg
 - Load Rating: 150 kg
- Specs 3
 - Closed Height: 5.1m
 - Extended Height: 8.5m
 - Approx. Weight: 32 kg
 - Load Rating: 150 kg

4.54. Allen Keys Set Metric 10 Pc

- 10 piece set

4.55. Screwdrivers Set Flat (4x100,6x150,8x150, 10x250mm)

- 4x100, 6x150, 8x150, 10x250mm

4.55. Screwdrivers Phillips NO. 1 ,2 and 3

- Set of NO. 1 ,2 and 3

4.56. Heat Guns

- Power: 1800 Watts
- Professional-grade heat gun

4.57. Petrol Generator Set - 6500wATT

- ngine: (11Hp), 8.2kw air-cooled, 4 stroke petrol engine.
- Alternator: Sincro 230V, 50Hz
- Fuel Tank: 6.5L
- Continuous running hours: 3 hr
- Rated output: 5.4kva
- Maximum output: 6kVA
- Oil Alert: Yes
- Starting system: Recoil (Rope)
- Weight: +- 95kg (dry)

4.58. Combination Pliers Electricians - Crescent 200mm

- Plier combination
- 3800-8t 200mm
- Professional quality
- Insulated handles

4.59. Hand Crimping Pliers

- Crimping Capacity 2.63 to 6.64;6.64 to 10.52;10.52 to 16.78 mm
- terminal size 5.50;8;14 mm
- Tool Nest Size 5.50;8;14 mm

4.60. Heavey Duty Voltage Testers

- Neon Indicator (Green, Red)
- Polarity
- Oil Resistant
- No batteries

4.61. Tong Tester

- CLAMPING DIAMETER \varnothing 48 mm
- DISPLAY Large triple 10 000 count, backlit screen
- POWER W, VA, var (Yes - single-phase and total three-phase)
- TOTAL HARMONIC DISTORTION THDf % / THDr %
- CURRENT SURGE (TRUE INRUSH) Yes
- MIN MAX / PEAK FUNCTION Yes / Yes
- REC STORAGE FUNCTION Yes - (up to 3000 measurement)

4.62. High Voltage Detectors1 - 132 Kv -Top Tronic HDV Series

- HV live or dead
- 6.6-132kV
- Carry Case- Cleaning Kit- 1 x Rose Connector- 1 x Y Contact

5. Measurements and payments

- Claims for payment will be made as and when Material are delivered.
- Any rejected and incomplete material will not be paid.
- All rates in the schedule of quantities must be made per unit as requested and should be an all-inclusive rate.
- The rate quoted by the Tenderer(s) and accepted by PRASA must hold well till the completion of the work and shall not be subject to any escalation due to increase in the local market rates for materials & labor. No claim on this account whatsoever shall be entertained at any stage including the extended period.
- The client shall retain 10% of all invoices claimed under this contract, this shall be payable at the end of the guarantee period of 52 weeks after the date of handover.
- The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount of

the Preliminaries and any amount in respect of contract price adjustment if provided for in the contract.

6. Payment Certificate

- On or after the assessment date, the Supervisor and the Contractor 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.
- The Contractor shall then submit a VAT invoice and attach the above Progress Certificate for payment by the Employer.
- Contractor to provide the Employer with the necessary details regarding banking details to enable the Employer to make electronic payments.

7. PRICING AND THE WORKS.

- The contractor is required to provide firm prices/ rates for material for the duration of the contract.
- The contract period shall be inclusive of the delivery dates from the date of acceptance by the client of the last unit.
- The contract offer shall be based on the rates as indicated in the bill of quantities. The quantities shall be agreed per delivery.