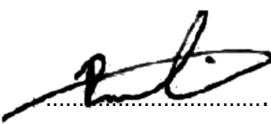





INFRASTRUCTURE MAINTENANCE

SPECIFICATION

Specification For A Drill machine

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Transnet Freight Rail - Infrastructure

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1. Scope

- 1.1. This specification outlines the requirements of a corded drilling machine
- 1.2. Transnet Freight rail requires that the supplier should ensure that the drill offered is of high quality.

2. Operating Conditions

- 2.1. Machines will be operated in all weather conditions at altitudes varying from sea level to 1850 m above sea level, relative humidity 10% to 90% and atmospheric conditions which vary from heavily saline to dry and dusty.
- 2.2. Ambient air temperatures ranging from -5° C to 50° C.

3. Qualifications

- 3.1 The design of the drilling machine is to be that of the manufacturer, but must be of robust in order to meet sustained heavy-duty demands of railway infrastructure environment.
- 3.2 The drilling machine should have a keyless chuck with spindle lock.
- 3.3 Only products proven in service will be considered. A list of users, both South African and international, is to be submitted.

4. Performance

- 4.1. A service life of not less than 7 years is expected from each machine. The actual service life of the machine is to be stated.
- 4.2. The drilling machine are to be easily and economically maintained with standard workshop tools and equipment.

5. General Requirements

- 5.1 The drilling machine must be designed for heavy duty industrial use, it must be able to perform in tough conditions and in a wide variety of applications.
- 5.2 The drilling machine must have special features attached for easy starting, handling and operation.
- 5.3 The drilling machine must be able to deliver high power and low emissions throughout the service life.

- 5.4 The drilling machine including metal bits, wood bits, concrete bits, and various screw drive bits attachments must be of high quality.

6. Detailed Requirements

6.1 Performance

- 6.1.1 The drilling machine shall consist of a 2 speed motor
- 6.1.2 The drilling machine maximum torque shall at least be 49 Nm
- 6.1.3 The drilling machine's motor shall have the capacity to rotate at 3000 revolutions per minute with no load

6.2 Drill compatibility

- 6.2.1 The drill bit chuck range shall be 2 – 13mm in diameter
- 6.2.2 The weight of the drilling machine shall not exceed 3kg without bits
- 6.2.3 The drilling machine shall consist of an interlocked lever for changing the rotational direction.

6.3 Operator Comfort

- 6.3.1. The chainsaw must comply with SANS 8662-1:1998 (Hand-Held Portable Power Tools - Measurement of Vibrations at the Handle Part 1:General) and SANS 8662 – 12:2003 (Hand-Held Portable Power Tools - Measurement of Vibrations at the Handle Part 12: Saws and files with reciprocating action and saws with oscillating or rotating action).

6.4 Noise Emission

- 6.4.1. The drilling machine must comply with SANS 11200 (Noise emitted by machinery and equipment).

6.5 Body

- 6.6.1 The body of the drilling machine and its components must be robust.
- 6.6.2 The machine must be well protected against rust
- 6.6.3 The grip on the handles must have a non-slip surface.
- 6.6.4 Machines will be acceptable in standard factory production finish and colour.
- 6.6.5 Due cognisance must be given to the life requirement of the machine.

6.6 Safety

- 6.7.1 The drilling machine is to be provided with suitable safety guards to protect against any risks associated with machine. Details to be furnished
- 6.7.2 More safety features should be installed for operators safety and comfort.

6.7 Ergonomics

- 6.8.1 The machine must be ergonomically designed for maximum operator productivity and safety.

7. Quality Control

- 7.1 All machines must be manufactured in an environment that complies to the latest ISO 9000 to ISO 9004 or similar quality control standards.

8. Data Plate

- 8.1 The machine must come with a data plate.
- 8.2 The maximum no load speed in RPMs must be clearly marked.
- 8.3 The chain saw bar length compatibility options must clearly indicated.

9. Legal and Operational

- 9.1 All machines must comply with the requirements of the Machinery and Occupational Safety Act, (Act 85 of 1993 – General and Driven Machinery Regulations) and The Machinery Directive 2006/37/EC.
- 9.2 The machine must be completely assembled and filled with lubricants and ready for service in all respects.
- 9.3 Where grease nipples are fitted these are to be to DIN 71412 (Lubricating Nipples – Cone Type) in easily accessible positions. Full details of lubrication applicable to machines on offer to be submitted.
- 9.4 An operator's handbook, service manual and spare parts list must be supplied with each machine in order to ensure that the machine is operated in accordance to the manufacturer's instructions.

- 9.5 All machines and equipment must be supplied complete with essential tools such as Allen keys, spanners etc. in order to make essential adjustments as well as to fit or remove consumable items.
- 9.6 Consumable items must be available locally and must be of standardised format in order to be used on equipment of more than one supplier.
- 9.7 All machines and equipment is to be guaranteed for a minimum period of 12 months against faulty material and workmanship - fair wear and tear excluded. Full details of guarantee is to be submitted.
- 9.8 The information as requested by the various clauses in this specification are to be supplied in the form of technical data, pamphlets and/or drawings. If this is not complied to, offers may be overlooked.
- 9.9 Sufficient training must be given to all operators of these machines.