




INFRASTRUCTURE MAINTENANCE

PROCUREMENT SPECIFICATION

SPECIFICATION FOR PETROL CHAIN SAW

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1. General Requirements

- 1.1. The specification details the requirements for a petrol chain saw for use in railway infrastructure maintenance.
- 1.2. The petrol chain saw shall be ergonomically designed for maximum operator productivity and safety.

2. Operating Conditions

- 2.1. The petrol chain saw shall be operated in all weather conditions at altitudes varying from sea level to 1,850m 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. Performance

- 3.1. A service life of not less than 7 years is expected from each petrol chain saw. The actual design life of the petrol chain saw shall be stated.
- 3.2. The petrol chain saw shall be easily and economically maintained with standard workshop tools and equipment.

4. Technical Requirements

4.1. General Description

- 4.1.1. The petrol chain saw shall be designed for professional use; it shall be able to perform in tough conditions and in a wide variety of applications.
- 4.1.2. The supplier should ensure that each petrol chain saw is supplied with all the special equipment and accessories essential to enable it to be adjusted, maintained, and used safely.
- 4.1.3. The petrol chain saw will be acceptable in standard factory production finish and colour.

4.2. Functional Requirements

- 4.2.1. A 2-stroke petrol engine rated 5 kW power shall be used for the petrol chain saw.
- 4.2.2. The petrol chain saw shall have a fuel tank capacity of 1 litre.
- 4.2.3. The petrol chain saw shall have an oil tank capacity of 0.5 litre.
- 4.2.4. The petrol chain saw shall have a chain pitch of 1/4"P, 3/8"P and 64 drive links.
- 4.2.5. The petrol chain saw shall have a sound pressure level of 92-93 dB(A).
- 4.2.6. The petrol chain saw shall have a sound power level of 109 dB(A).
- 4.2.7. The petrol chain saw shall be fitted with an automatic shut-down in the event of either empty fluid tank or low fluid level.
- 4.2.8. The petrol chain saw shall have optimum handling, i.e. Ergonomic handlebar with a soft grip.

4.3. Additional Requirements

The petrol chain saw shall be supplied complete with the following:

- Chain.
- Chain bar.
- Shoulder strap.
- Safety guard.
- Chain/bar cover.
- Fuel mixing bottle.
- An operator's handbook, service manual and spare parts list shall be supplied with each petrol chain saw to ensure that it is operated in accordance with the manufacturer's instructions.
- Essential tools such as Allen keys, spanners etc. to make essential adjustments as well as to fit or remove consumable items.

4.4. Data Plate

- 4.4.1. The petrol chain saw shall come with a data plate.
- 4.4.2. The brand and model number of the petrol chain saw shall be clearly shown.
- 4.4.3. The actual weight in kilograms (Kg) of the petrol chain saw shall be shown on the machine.
- 4.4.4. The actual dimensions of the petrol chain saw shall be indicated in millimetres.

5. Quality Control

- 5.1. The petrol chain saw shall be manufactured in an environment that complies to the latest ISO 9000 to ISO 9004 or similar quality control standards. ISO Certification may be required.
- 5.2. The petrol chain saw shall undergo functional testing prior to acceptance upon delivery.
- 5.3. The design of the petrol chain saw shall be that of the manufacturer but shall be of robust construction to meet sustained duty demands, yet it shall be light and easy handled by one operator.
- 5.4. The petrol chain saw shall be acceptable in standard factory production finish and colour.

6. Legal and Operational

- 6.1. The petrol chain saw shall comply with the requirements of the Machinery and Occupational Safety Act, (Act 85 of 1993 – General and Driven Machinery Regulations) and the Machinery Directive 2006/42/EC.
- 6.2. The manufacturer shall mark and label the petrol chain saw so that it adheres to the SANS 1186-1, SANS 1363, ISO 7010, and ISO 3864-1 standards for marking safety and warning signs.
- 6.3. The petrol chain saw shall be completely assembled and filled with lubricants and ready for service in all aspects.
- 6.4. The information as requested by the various clauses in this specification is to be supplied in the form of technical data, pamphlets and/or drawings.
- 6.5. The petrol chain saw is to be guaranteed for a minimum period of twelve (12) months against faulty material and workmanship-fair wear and tear excluded. Full details of guarantee to be submitted.

END OF SPECIFICATION