





# INFRASTRUCTURE MAINTENANCE

## SPECIFICATION

### Specification for Pump Emergency lights

Author:	Engineer	Rotondwa Ludzulu	
Approved:	Senior Engineering Technologist Engineering	Molefi Moeketsane	
Authorised:	Principal Engineer Engineering	Siboniso Vilakazi	.....

Date: 22 November 2018

Circulation Restricted To:

Transnet Freight Rail - Infrastructure

© This document as a whole is protected by copyright. The information herein is the sole property of Transnet Ltd. It may not be used, disclosed or reproduced in part or in whole in any manner whatsoever, except with the written permission of and in a manner permitted by the proprietors.

# Contents

1.	Scope.....	3
2.	Operating Conditions .....	3
3.	Qualifications .....	3
4.	Performance .....	3
5.	Technical Requirements.....	3
6.	Quality Control .....	4
7.	Legal and Operational.....	4

## 1. Scope

- 1.1 This specification outlines the requirements of a heavy duty pump mast lights that will be used during maintenance of railway infrastructure.

## 2. Operating Conditions

- 2.1. The pump mast lights 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 45° C.

## 3. Qualifications

- 3.1. The design of the lights is to be that of the manufacturer, but must be of robust construction in order to meet sustained heavy-duty demands of railway infrastructure maintenance.
- 3.2. It shall be easy to handle
- 3.3. It shall include a tripod stand
- 3.4. It shall include a mast stand
- 3.5. Only products proven in service will be considered. A list of users, both South African and International, is to be submitted.
- 3.6. It must comply to SANS 1279

## 4. Performance

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

## 5. Technical Requirements

### 5.1. Lamp head

- 5.1.1. It shall contain 2 × 500W halogen globes in each casing that can be powered but not limited to a 230V AC. An equivalent LED light can be proposed.
- 5.1.2. The lamp head shall be portable.
- 5.1.3. It shall contain fins for optimum heat dissipation
- 5.1.4. The housing of the globes shall be anti corrosive.
- 5.1.5. It shall contain a safety glass which can handle high temperature fluctuations
- 5.1.6. It shall be easy to handle

### 5.2. Tripod stand

- 5.2.1. The tripod stand shall be heavy duty
- 5.2.2. The tripod stand shall be that of galvanised steel
- 5.2.3. It shall easily extendable

- 5.2.4. It shall be locked at pre-set heights
- 5.2.5. It shall be individually adjustable
- 5.2.6. It shall have adjustable ground plates for use on sloped areas
- 5.2.7. The Weight of the tripod stand shall be less than 8 kg.
- 5.2.8. It should be collapsible to a handy size

### **5.3.Mast stand**

- 5.3.1. The mast stand

## **6. Quality Control**

- 6.1.All machines must be manufactured in an environment that complies to the latest ISO 9000 to ISO 9004 or similar quality control standards. Details must be furnished.
- 6.2.Machines will be subject to a technical evaluation and the final decision will, amongst others, be based on these findings.

## **7. Legal and Operational**

- 7.1. 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.
- 7.2. 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.
- 7.3. Consumable items must be available locally and must be of standardised format in order to be used on equipment of more than one supplier.
- 7.4. 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.
- 7.5. 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.
- 7.6. Each machine purchased will be issued with a project number consisting of 20 characters which must be stamped or engraved directly onto the machine **or** on the manufacturer's date plate **or** a separate riveted plate on the particular machine.