
Overview

This standard is about carrying out routine maintenance on Tramway assets, components and equipment. You will be able to work to an organisational approved plan and carry out a range of maintenance activities on the Tramway Infrastructure. This may include the track and track side environment, signalling, telecommunication and electrification systems, as required by your own organisation. The activities will be routine and will involve understanding the range of tramway assets, components and equipment and their purpose. The maintenance activities will be undertaken as scheduled and will be under the guidance of a team leader or supervisor. You will be able to interpret information relating to the routine maintenance activities and undertake these activities using organisational approved methods and procedures. At all times you will follow organisational and regulatory health and safety procedures and take precautions to prevent damage to surrounding equipment and systems.

You will know and understand the importance of securing the area prior to routine maintenance activities taking place as well as undertaking activities in the correct sequence.

This standard is for those who work in the Tramway engineering environment.

Performance criteria

You must be able to:

- P1 confirm you are wearing the correct PPE (Personal Protective Equipment) and following the relevant **health and safety procedures**
- P2 source and interpret **information** required for the **routine maintenance** activity
- P3 confirm the **routine maintenance activities** to be carried out and determine their sequence, in line with organisational requirements
- P4 identify and confirm the **resources** required in line with organisational procedures
- P5 identify where resources are not available and deal with the deficiency in line with organisational procedures
- P6 confirm the timescales required to complete the planned routine maintenance activities in line with organisational procedures
- P7 take precautions to prevent damage to surrounding assets, components, equipment and the wider environment during routine maintenance activities
- P8 undertake routine maintenance activities on Tramway assets, components and equipment using organisational methods and procedures
- P9 complete maintenance records in line with organisational procedures

Knowledge and understanding

You need to know and understand:

- K1 the relevant health and safety procedures appropriate to the activity including safe systems of work
- K2 the importance of **securing the area** prior to routine maintenance activities taking place
- K3 how to safely access the Tramway assets, components and equipments
- K4 the **hazards** associated with working on or near **assets, components or equipment**
- K5 the methods and techniques for releasing stored energy or substances
- K6 the way in which Tramway assets, components and equipment are intended to function in line with organisational procedures
- K7 the different types of Tramway asset configuration and the reasons behind this
- K8 how to source and interpret the information required for the routine maintenance activities
- K9 how to confirm the availability of resources, including the booking of parts and equipment, where required
- K10 the limits of own authority and competency when carrying out planned maintenance activities on Tramway assets, components and equipment
- K11 the range of precautions that can be taken to prevent damage to surrounding Tramway assets, components and equipment
- K12 the range of precautions to be taken to prevent damage and interference with the Tramway and wider environment
- K13 the methods and organisational procedures for routine maintenance activities on Tramway assets, components and equipment
- K14 the importance of carrying out routine maintenance activities in the correct sequence and within agreed timescales

K15 when and how to perform an inventory of tools, equipment and components

K16 the methods and organisational procedures for the re-use and discarding of components

K17 the importance of observing sufficient operations of the Tramway assets, components and equipment prior to completion of routine maintenance activities

K18 the problems that can occur during routine maintenance activities and the organisational procedures for dealing with these

K19 how defects in components and equipment can affect the safety and performance of the Tramway

Scope/range related to performance criteria

P1 ****Health and safety**** ****procedures**** ********may include; ergonomic working, moving and manual handling, Personal Protective Equipment (PPE), working time and breaks, lone working, Personal Track Safety, safe systems of work (authorised access/egress points, signage, lighting, CCTV, walking to and from a work site, planned protection arrangements, emergency stop protection arrangements, possession arrangements, isolation requirements, communication/warning arrangements and techniques, positions of safety, safety zones, lookout arrangements, first aid points, emergency assembly point, safety briefings, fire evacuation, working at height requirements, working in confined spaces requirements, authorised walking routes, emergency service support (as required), walking to and from a vehicle, designated parking areas). P2 ****Information**** may include; electronic or paper records and documents such as, drawings, defect history, fault reports, handbooks, manuals, charts, maintenance specifications, maintenance history, permits, warrantee, instructions, schedules, catalogues, logbooks, method statements, weather restrictions, extreme weather plans, risk assessments. ****Routine maintenance**** may include; scheduled, planned preventative, condition based, total preventative. P3 ****Activities**** may include; sensory checks, electrical measurements and adjustments, mechanical measurements and adjustments, routine servicing, wiring/fuse checks, replacements, dismantling, reassembling, cleaning, cutting grinding, planning, lubricating, condition checks, checking gauges/sensors, routine adjustments, aligning, tightening, leak checks, torque loading, replacing consumables (batteries, filters, fluids, seals, bearings, belts), testing, marking/labelling, system review/analysis, cleaning out ditches/drains, cutting back/clearing vegetation, ensuring ballast profile, removing and disposing of debris/waste materials. P4 ****Resources**** may include; components, consumables, personnel, tools and equipment, test equipment, waste disposal, personal protective equipment, lifting equipment.

Scope/range related to knowledge and understanding

K2 **Securing the area** may include; isolation, lock off, permit to work, warning notices, barriers.

K4 **Hazards** may include; stored energy, radio frequency radiation, electrical/electronic interfaces, using damaged tools and equipment, not following procedures, working at height, working in confined spaces. **Assets, c*omponents or equipment*** may include; mechanical, electrical, electronic, hydraulic, pneumatic, systematic, thermal, fixtures and fittings.

Glossary

Tram

Tramcars, tram vehicle, and any other rail vehicles that operate on tramways. It includes one or more trams coupled together and includes non-passenger-carrying vehicles.

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Tramway

Includes the tramway (a set of rails, switches and crossings which form the route of a Tram) , infrastructure (fixed assets used for the running of the Tram transport system, including, the tramway, bridges, tunnels, stops, stations and fixed equipment for signalling, communications and electrification), depots, stabling yards.

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Trackside environment

Includes structures, platforms, embankments.

UKTTWE05

Carry out routine maintenance of Tramway assets, components and equipment



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