

## Overview

This standard is about restoring switches and crossings to operational condition by manual or mechanised means.

You will be required to restore switches and crossings to optimum condition and the complexity of repairs will be influenced by track alignment and geometrical tolerances. You must be able to mark up and carry out repairs on all types of track including those with steel, concrete, plastic and timber bearers. Dimensional clearances must be taken into account at all times.

The type of assets to be repaired will be switches and crossings.

The quality standards and accuracy to be achieved will be approved by your organisation and the manufacturer and must include restoring components to within operational tolerances.

The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out on permanent way infrastructure.

You will be expected to work within approved procedures and specifications and will work within the limits of your own responsibility.

During this work, you must take account of the relevant worksite operational requirements, procedures and safe working practices as they apply to you.

Your underpinning knowledge will provide a good understanding of your work and will provide an informed approach to applying problem-solving techniques and procedures when restoring switches and crossings to optimum condition.

You will comply with any organisational procedures, legislative or regulatory health, safety and environmental requirements applicable when restoring switches and crossings to optimum condition.

This unit is for all skilled operatives carrying out permanent way engineering activities.

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## Performance criteria

### *You must be able to:*

- P1 maintain safe working practices and comply with all relevant health and safety regulations, directives, and guidelines
- P2 identify any necessary changes to safety requirements upon site arrival and report to the relevant person(s) without delay
- P3 source and follow the appropriate schedules, diagrams and related specifications for the work being carried out as approved by your organisation
- P4 prepare the worksite for repair, including:
  - P4.1 measuring components' position
  - P4.2 carrying out health and safety checks
- P5 carry out the repairs within agreed timescales using approved materials and components, methods and procedures
- P6 ensure that the repaired asset meets the specified operating conditions
- P7 prepare appropriate documentation to update on progress and report completion of activities in line with your organisation's procedures
- P8 address problems within your control and report unresolved issues

## Knowledge and understanding

### *You need to know and understand:*

K1 the relevant health and safety regulations, directives, guidelines, and safe working practices and procedures defined by your organisation, as appropriate to the activity and your working area

K2 your responsibilities in respect of health, safety and environment, including the limits of your personal responsibility, your legal responsibility for your own health and safety and the health and safety of others

K3 the importance of wearing protective clothing and other appropriate type of safety equipment (PPE) and where to obtain it from

K4 how to locate and access the site

K5 the hazards associated with working on permanent way infrastructure

K6 environmental and safety risks associated with working with hazardous substances and materials

K7 how to source and follow schedules, diagrams and specifications relevant to your role, as approved by your organisation

K8 the nature of repairs using mechanical or manual equipment including:

K8.1 top

K8.2 alignment

K8.3 cross level

K8.4 track gauge

K8.5 flangeway clearances

K9 how to source and interpret the relevant specifications as approved by your organisation

K10 the methods, techniques and procedures for worksite repair as approved by your organisation including those that are both temporary and permanent

K11 how switches and crossings that are not repaired to specification can affect the safety and performance of the permanent way

K12 your organisation's procedures for the care and control of mechanised equipment, including calibration requirements

K13 your organisation's procedures for recording maintenance activities

K14 your organisation's methods and techniques for ensuring that repaired assets meet the specified operating conditions

K15 the importance of carrying out repair activities in the specified sequence and agreed timescale

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K16 the relevant data management processes and technologies for recording information

K17 the relevant reporting lines, timeframes and procedures as approved by your organisation

K18 the impact of your work on the operations of other departments and the impact of their work for you

K19 the limits of your own authority and responsibility and those of others involved

SEMPW311



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