

Track Induction

Course Aims

To provide the basic underpinning knowledge of permanent way construction, components and working methods associated with maintenance, renewal, repair, adjustment and dismantling of permanent way assets.

Primary Objectives

At the end of the training the delegate will be able to:

Identify and describe the function of each of the component parts of the track infrastructure including:

- Plain line and switches and crossings including rails, sleepers, bearers, ballast, fastenings, pads, insulators, clips, fishplates, bolts, tie bars, stretcher bars, switch heaters and lubricators
- Joints, including insulated joints
- Adjustment switches
- Drains
- Vegetation
- Civil Engineering Structures, including cuttings, embankment and culverts
- Signalling equipment including signals; point machines, cranks and rodding; AWS inductors; TPWS track equipment; axle counters; on track and lineside cables
- OHL equipment including structures; catenaries; earth, red and yellow bonds

Describe the types of routine preventative maintenance undertaken on the permanent way including:

- Measured Shovel Packing
- Slewing the track (Manual & Hydraulic)
- Removal of wet beds
- Rail adjusting including adjustment switches
- Crossing replacement
- Insulated joint renewal
- Fishplate, switch slide chair and expansion switch lubrication
- Rail including plain rails and switch and stock rails
- Stressing and re-stressing
- Sleeper and timber changing including longitudinal timbers
- Fastening, pad and insulator replacement
- Packing (Shovel & Kango)
- Handheld Stoneblower
- Rail Lubrication

The likely impact of each of the above types of work on the safe operation of the railway, what is measured and what is acceptable during repairs under traffic and under possession. How the weather can affect the operation of the railway and restrict when work can be done.

Dismantling, installation, adjustment and replacement techniques, including lifting technique, used on permanent way assets in respect of either plain line or switches and crossings.

How mechanised maintenance is used to support maintenance of permanent way assets including the types of machine used. The types of small plant and equipment used during work on permanent way assets.

What preventative maintenance including assessing what is wrong at the site to identify short term and long-term resolutions is undertaken in off track areas including:

- Drainage
- Lineside vegetation control
- Fencing
- Embankment and cutting maintenance

Who is responsible for the quality of work done during normal maintenance activities.

Carry out the following maintenance activities within the limits of their personal authority including selecting the appropriate tool for the job, checking it is fit for purpose and using it safely:

Working in groups

- Unclip and re-fasten rails including fitting rollers and side rollers for stressing in accordance with TWI 2P014
- Change a set of fish plates and fit shims in accordance with TWI 2C001
- Change a sleeper in accordance with TWI 2P034, TWI 2P036 or TWI 2P043
- Move a rail in accordance with TWI 2G046

Working on their own:

- Lift a joint in accordance with TWI 2T014
- Fit void meters in accordance with TWI 2G004
- Open out the ballast ready for Measured Shovel Packing in accordance with TWI 2T007
- Re-ballast the track to the correct profile in accordance with TWI 2B004
- Change a Pandrol fastclip fastening

Duration

Track Induction 5 Days, 12 Delegates Max

Pre-Requisites

Delegates

Before attending this training, a person must be proven medically fit in accordance with NR/L2/CTM/021 Competence & Training in Track Safety.

Also, they should have successfully completed the Company Induction Module and Personal Track Safety Training.

Personal Protective Equipment

For the Initial course the delegates are required to be near the running line, therefore, he/she MUST be in possession of: -

- Protective “all orange” high Visibility Clothing to BS EN 471:2003
- Safety Footwear to BS EN ISO 20345:2004
- Safety Helmet (blue) to BS EN 397:1995
- General Purpose Gloves to BS EN388:2121
- Safety Glasses to BS EN 166 and of Optical Class 1 with Impact Resistance F

Should you have any questions/enquiries regarding this course, please fill out the form at the bottom of the Training page on the [Stobart Rail & Civils website](#) and will we endeavour to respond to you as soon as we can.