

Track Realignment by the Hallade Method

COURSE AIMS

This course is intended to provide a delegate with an in-depth knowledge in the surveying, calculation and design of track re-alignment schemes when using the Hallade method.

LEARNING OBJECTIVES

At the end of this course the delegates will: -

- Have a clear understanding of track geometry and track parameters, speed, curve, gradient etc
- Be able to demonstrate a clear understanding of the principles of the Hallade survey, including the use of relevant surveying equipment
- Have an understanding of the theory of overlapping chords
- Be able to demonstrate an understanding of design requirements and the relevant tolerances
- Understand the quarter chord theory
- Understand the transition theory – cubic parabola
- Have an understanding of the tangential changes of radius relating to the curvature of the track
- Be able to demonstrate a clear understanding of the method of employing couples
- Understand the relationship between a theodolite straight and Hallade curve
- Be aware of the requirements for making the track for on-track machines
- Be aware of Railway Standards, Company Standards and requirements relating to track re-alignment schemes

COURSE DURATION

Ten days, consisting of two continuous five day modules, Monday – Friday.

PRE-REQUISITES

There are no particular educational or competence pre-requisites for the course. However, the following factors will benefit the delegates:-

- Prior technical experience of working on the maintenance/ renewal of the track
- Good numeric skills
- Prior basic skills in surveying and use of equipment

PERSONAL PROTECTIVE EQUIPMENT

This course requires the delegate to be on or near the running line, therefore, he/she **MUST** be in possession of: -

- Valid Track Safety Competence
- Protective High Visibility Clothing
- Safety Footwear

The protective equipment must comply with current safety standards.

CERTIFICATION

The delegate is required to complete an examination to demonstrate his/her ability to complete a survey and design scheme using the Hallade Method.

Re-certification is not required.