

Technical Specification

T0430 Re-use of track materials

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Contents

1	Purpose	3
2	Scope	3
3	Requirements	3
3.1	Inspection and assessment	3
3.2	Economic evaluation	3
3.3	Running rail	3
3.4	Sleepers	4
3.5	Small track components	5
3.6	Ballast and shingle	6
3.7	Junctionwork	6
3.8	Conductor rail	7
3.9	Conductor rail components	7
3.10	Handling and storage	7
4	Responsibilities	7
5	Supporting information	8
6	References	8
6.1	References	8
6.2	Abbreviations	8
6.3	Definitions	8
6.4	Person accountable for the document	9
6.5	Document history	9
7	Attachment	9
7.1	Nominal cost of second-hand material	9
7.2	Economy of recovery	9
7.3	Economy of site	9

1 Purpose

The purpose of this technical specification is to specify the minimum requirements for materials and components taken out of existing track to enable them to be re-used in track at another location.

2 Scope

- 2.1 This technical specification applies to existing track components.
- 2.2 This technical specification does not refer specifically to every material item used in track construction but establishes principles for determining re-use, the calculations required and reference to the appropriate standards. These principles may also be applied to materials not listed.

3 Requirements

3.1 Inspection and assessment

- 3.1.1 Components and materials for re-use in running lines, depot track or sidings shall be inspected and assessed against the relevant technical specifications, but taking into account the wear limits permitted by S1159 and 1-164 as appropriate. Only compliant materials shall be re-used.
- 3.1.2 When making such assessments for components and materials that form part of the track structure's critical load path, due account must be taken of their remaining fatigue life.
- 3.1.3 Where a robust estimate of remaining fatigue life cannot be made, such critical components shall not be re-used other than to maintain the train service in an emergency. Where such second hand components or materials are installed in an emergency, they shall be replaced with new items as soon as it is reasonably practicable to do so.

3.2 Economic evaluation

- 3.2.1 Where it is intended to make systematic and/or prolonged re-use of second hand components and/or materials in track works, such re-use shall be supported by an economic evaluation of the consequent impact on the whole life cost of the track asset using a methodology approved by the Head of Track Engineering LU or an authorised delegate.
- 3.2.2 Re-use of materials shall only be permitted where the economic evaluation shows benefit in whole life asset cost and/or use of available capital investment funds.
- 3.2.3 An example of an approved economic evaluation methodology is given in section 7.

3.3 Running rail

3.3.1 General criteria for re-use

General criteria for re-use of running rail are set out in S1157.

3.3.2 Rail defects

Defects such as squats, wheelburns and minor cracks shall be rigorously examined by ultrasonic inspection in accordance with S1158 and, if economic, shall be repaired by welding in accordance with T0436. If not economic the rail shall be scrapped.