

Technical Specification

T0400
(Formerly E8115)

Common and Obtuse Crossings

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1 Purpose

- 1.1 The purpose of this specification is to detail the requirements for the material, manufacture and assembly of common and obtuse crossings for use on the LU network.

2 Scope

- 2.1 This specification applies to crossings for flatbottom (56E1) and bullhead (95RBH) junctionwork as follows:
- a) fabricated or semi-welded;
 - b) cast from austenitic manganese steel (56E1 only).

3 Requirements

3.1 General

- 3.1.1 Common and obtuse crossings shall conform to the design and performance criteria detailed in Attachment 1.

3.2 Material

- 3.2.1 Fabricated and semi-welded crossings shall be manufactured from either:
- a) new 56E1 rail to EN 13674-1; or
 - b) new 95RBH rail to EN 13674-1 except for its profile which is defined in BS 11.
- 3.2.2 The rail grade for fabricated and semi-welded crossings shall be R260 to EN 13674-1, or other grade as may be approved by LU.
- 3.2.3 Cast crossings shall be manufactured from austenitic manganese steel complying with EN 15689.

3.3 Component and layout drawings

- 3.3.1 Components for common and obtuse crossings are shown on a variety of component and layout drawings. The drawings of standard components are shown in attachment 2.

3.4 Manufacture – general

- 3.4.1 No part of the crossing assembly shall be damaged during any manufacturing, assembly or handling operation.
- 3.4.2 Components for crossings shall be machined and fabricated strictly in accordance with the component and layout drawings and the tolerances given in this standard.

3.5 Manufacture – fabricated and semi-welded crossings

3.5.1 Rail bending

- 3.5.1.1 Every endeavour shall be made to minimise machining marks, particularly those indenting the surface in a transverse plane, around the point where a bend (set) is to be made.
- 3.5.1.2 Grade R260 steel shall be heated immediately before bending where the distance between the press blocks is to be 600mm or under, or the angle of set is to be more than 6°. In order to ensure adequate preheating throughout the whole section, the