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Pöörmekonstruksioonide ühenduste keevitamine**

**Railway applications - Track - Flash butt welding of rails
- Part 3: Welding in association with crossing
construction**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 14587-3:2012 sisaldab Euroopa standardi EN 14587-3:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 14587-3:2012 consists of the English text of the European standard EN 14587-3:2012.
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English Version

Railway applications - Track - Flash butt welding of rails - Part 3: Welding in association with crossing construction

Applications ferroviaires - Voie - Soudage des rails par
étincelage - Partie 3: Soudure associée à la fabrication des
coeurs de voie

Bahnanwendungen - Oberbau - Abbrennstumpfschweißen
von Schienen - Teil 3: Schweißen im Zusammenhang mit
Herzstückkonstruktionen

This European Standard was approved by CEN on 6 July 2012.

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Foreword

This document (EN 14587-3:2012) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2013, and conflicting national standards shall be withdrawn at the latest by March 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document is one of a series of three parts of the EN 14587 "Railway applications – Track – Flash butt welding of rails". The list of parts is as follows:

- *Part 1: New R220, R260, R260Mn and R350HT grade rails in a fixed plant*
- *Part 2: New R220, R260, R260Mn and R350HT grade rails by mobile welding machines at sites other than a fixed plant*
- *Part 3: Welding in association with crossing construction (the present standard)*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This part of EN 14587 has four main topics:

- requirements of a welding process;
- procedure approval for a fixed plant;
- approval of other rail profiles or grades;
- weld production following approval.

This European Standard satisfies the needs of the railway authority. The manufacturer should achieve the specified requirements of this European Standard.

1 Scope

This European Standard specifies requirements for the approval of a welding process in a fixed plant, together with the requirements for subsequent welding production.

This European Standard applies to new Vignole rails welded by flash butt welding to crossing components in a fixed plant, and intended for use on railway infrastructures.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 571-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

EN 1371-1, *Founding — Liquid penetrant testing — Part 1: Sand, gravity die and low pressure die castings*

EN 13674-1, *Railway applications — Track — Rail — Part 1: Vignole railway rails 46 kg/m and above*

EN 13674-2, *Railway applications — Track — Rail — Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above*

EN 13674-4, *Railway applications — Track — Rail — Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m*

EN 14587-1:2007, *Railway applications — Track — Flash butt welding of rails — Part 1: New R220, R260, R260Mn and 350HT grade rails in a fixed plant*

EN ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method (ISO 6507-1)*

EN ISO 11666, *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels (ISO 11666)*

EN ISO 17638, *Non-destructive testing of welds — Magnetic particle testing (ISO 17638)*

EN ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment (ISO 17640)*

EN ISO 23279, *Non-destructive testing of welds — Ultrasonic testing — Characterization of indications in welds (ISO 23279)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 manufacturer

company that joins rails to rails, rails to crossings and rails to crossing components by flash butt welding in a fixed plant

3.2 purchaser

buyer of the flashbutt welded crossings working in accordance with the requirements of the railway authority

3.3 railway infrastructure

permanent way of national or private railways