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DOKUMENTEERIMINE

Railway applications - Welding of railway vehicles and
components - Part 5: Inspection, testing and
documentation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15085-5:2023 sisaldab Euroopa standardi EN 15085-5:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 15085-5:2023 consists of the English text of the European standard EN 15085-5:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.03.2023.	Date of Availability of the European standard is 15.03.2023.
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English Version

**Railway applications - Welding of railway vehicles and
components - Part 5: Inspection, testing and
documentation**

Applications ferroviaires - Soudage des véhicules et des
composants ferroviaires - Partie 5 : Vérification,
contrôles et documentation

Bahnanwendungen - Schweißen von
Schienenfahrzeugen und -fahrzeugteilen - Teil 5:
Prüfung und Dokumentation

This European Standard was approved by CEN on 23 January 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 15085-5:2023) 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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

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

This document supersedes EN 15085-5:2007.

This series of European Standards EN 15085 “*Railway applications — Welding of railway vehicles and components*” consists of the following parts:

- Part 1: General;
- Part 2: Requirements for welding manufacturers;
- Part 3: Design requirements;
- Part 4: Production requirements;
- Part 5: Inspection, testing and documentation;
- Part 6: Maintenance welding requirements.

EN 15085-5:2023 includes the following changes with respect to EN 15085-5:2007:

- a) Normative references have been updated;
- b) Clause 3, Terms and definitions has been updated;
- c) Clause 4, Inspection and testing of welded joints has been revised;
- d) Clause 5, Test planning and acceptance criteria has been revised;
- e) Clause 6, Documentation has been revised;
- f) Clause 7, Non-conformity has been revised;
- g) Clause 8, Sub-contractors has been removed;
- h) Clause 9, Declaration of conformity has been removed;
- i) Clause 10, Traceability has been revised and renamed in Clause 8;
- j) Annex A has been removed;
- k) Annex ZA has been added.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

Welding is a special process in the manufacture of railway vehicles and their parts. The required provisions for this process are defined in the standards series EN ISO 3834. The basis of these provisions is the basic technical welding standards with respect to the special requirements for the construction of railway vehicles.

This series of standards applies to welding of metallic materials in the manufacture and maintenance of railway vehicles and their parts.

It describes the control for the welding process for railway vehicles and their components for new manufacture and maintenance.

With respect to the railway environment, this series of standards defines the quality requirements for the welding manufacturer to undertake new building and repair work.

Components, parts and subassemblies are assigned a classification level, based on their safety relevance. According to these levels, qualifications for welding personnel of the manufacturer are specified.

This series provides an essential link between the weld performance class defined during design, the quality of the weld, and the demonstration of the required quality by inspection.

This series of standards does not deal with product qualification.

NOTE This series of standards can also be used by internal and external parties, including certification bodies, to assess the organization's ability to meet customer, regulatory and the organization's own requirements.

1 Scope

This document specifies:

- inspections and testing to be executed on the welds;
- destructive as well as non-destructive tests to be performed;
- necessary documentation to issue to declare the conformity of the products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15085-1:—¹, *Railway applications — Welding of railway vehicles and components — Part 1: General*

EN 15085-2:2020, *Railway applications - Welding of railway vehicles and components - Part 2: Requirements for welding manufacturer*

EN 15085-3:2022, *Railway applications - Welding of railway vehicles and components - Part 3: Design requirements*

EN 15085-4:2023, *Railway applications - Welding of railway vehicles and components - Part 4: Production requirements*

EN 15085-6:2022, *Railway applications - Welding of railway vehicles and components - Part 6: Maintenance welding requirements*

EN 1011-2:2001, *Welding - Recommendations for welding of metallic materials - Part 2: Arc welding of ferritic steels*

EN ISO 3834-1:2021, *Quality requirements for fusion welding of metallic materials - Part 1: Criteria for the selection of the appropriate level of quality requirements (ISO 3834-1:2021)*

EN ISO 3834-5:2021, *Quality requirements for fusion welding of metallic materials - Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4 (ISO 3834-5:2021)*

EN ISO 5817:2014, *Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) - Quality levels for imperfections (ISO 5817:2014)*

EN ISO 9712:2022, *Non-destructive testing - Qualification and certification of NDT personnel (ISO 9712:2022)*

EN ISO 10042:2018, *Welding - Arc-welded joints in aluminium and its alloys - Quality levels for imperfections (ISO 10042:2018)*

EN ISO 17635:2016, *Non-destructive testing of welds - General rules for metallic materials (ISO 17635:2016)*

EN ISO 17637:2016, *Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2016)*