



BSI Standards Publication

Railway applications — Welding of railway vehicles and components

Part 1: General

National foreword

This British Standard is the UK implementation of EN 15085-1:2023. It supersedes BS EN 15085-1:2007+A1:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RAE/3/-/11, Railway Applications - Structural requirements and Welding.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

**Railway applications - Welding of railway vehicles and
components - Part 1: General**

Applications ferroviaires - Soudage des véhicules et des
composants ferroviaires - Partie 1 : Généralités

Bahnanwendungen - Schweißen von
Schienenfahrzeugen und -fahrzeugteilen - Teil 1:
Allgemeines

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Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 General requirements	7
5 Other applicable regulations	7
5.1 General.....	7
5.2 Components produced by other industrial sectors	7
Annex A (normative) Welding on tank wagons.....	8
Bibliography.....	9

European foreword

This document (EN 15085-1:2023) 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of an identical text or by endorsement, at the latest by December 2023, and conflicting national standards shall be withdrawn at the latest by December 2023.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 has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association.

This document supersedes EN 15085-1:2007+A1:2013.

This document includes the following significant technical changes with respect to EN 15085-1:2007+A1:2013:

- a) The Foreword has been updated ;
- b) The Introduction has been revised;
- c) The Scope has been updated;
- d) Terms and definitions have been revised;
- e) Clause 4 “General requirements”: change of “company certification” to “manufacturer classification”;
- f) New Clause 5 “Other applicable regulations” added;
- g) New Annex A “Welding on tank wagons” added.

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.

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Introduction

Welding is a special process in the manufacture of railway vehicles and their parts. The required provisions for this process are laid down 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 defines terms in the field of welding on railway vehicles and associated components. This document is applicable to all assemblies, sub-assemblies or parts welded by any welding process, either manual, partly mechanized, fully mechanized, or automatic welding as defined in EN ISO 4063.

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 45020, *Standardization and related activities - General vocabulary (ISO/IEC Guide 2)*

CEN/TR 14599, *Terms and definitions for welding purposes in relation with EN 1792*

EN ISO 17659, *Welding - Multilingual terms for welded joints with illustrations (ISO 17659)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions given in CEN/TR 14599, EN ISO 17659 and EN 45020 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

classification level

level to classify the welded railway vehicle or the welded component depending on the safety relevance

Note 1 to entry The classification level is abbreviated by “CL”.

3.2

safety relevance

classification based on the severity of the consequences of a failure of a welded component with respect to the effects on persons, facilities and the environment

Note 1 to entry For more detailed information on safety relevance low, medium, high: see EN 15085-2:2020, Clause 4.1.

3.3

weld performance class

performance requirements of the welded joint as defined by the stress category and the safety category of the welded joint

Note 1 to entry The weld performance class is abbreviated by “CP” (class of performance).

3.4

weld inspection class

classification that describes the inspection requirements for a given weld

Note 1 to entry The weld inspection class is abbreviated by “CT” (class of testing).