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ÜLDIST. ÜLDREEGLID TARISTULE JA
RAUDTEEVEEREMILE

Railway applications - Gauges - Part 1: General -
Common rules for Rolling Stock and Infrastructure

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 15273-1:2025 sisaldab Euroopa standardi EN 15273-1:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 22.10.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 15273-1:2025 consists of the English text of the European standard EN 15273-1:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 22.10.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN 15273-1

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English Version

Railway applications - Gauges - Part 1: General - Common rules for rolling stock and infrastructure

Applications ferroviaires - Gabarits - Partie 1 :
Explications de base et règles communes pour matériel
roulant et infrastructure

Bahnanwendungen - Begrenzungslinien - Teil 1:
Allgemeines - Gemeinsame Vorschriften für Fahrzeuge
und Infrastruktur

This European Standard was approved by CEN on 16 June 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 15273-1:2025) 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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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, together with EN 15273-4:2025, will supersede EN 15273-1:2013+A1:2016.

The EN 15273 series, *Railway applications — Gauges*, consists of the following parts:

- EN 15273-1:2025, *General — Common rules for rolling stock and infrastructure* gives the general explanations of gauging and defines the sharing of the space between rolling stock and infrastructure;
- EN 15273-2:2025, *Rolling stock* gives the rules for dimensioning vehicles;
- EN 15273-3:2025, *Infrastructure* gives the rules for positioning the infrastructure;
- EN 15273-4:2025, *Catalogue of defined gauges* includes a non-exhaustive list of reference profiles and parameters to be used by infrastructure and rolling stock;
- CEN/TR 15273-5:2025, *Background, explanation and worked examples*.

The characteristics of the new edition of EN 15273 series are:

- introduction of absolute and comparative gauging process in Parts 1, Part 2, Part 3 and Part 5;
- specific rules given for each defined gauge in EN 15273-2:2025 and EN 15273-3:2025 are replaced by a common general set of basic formulae applicable for all. The applicable reference profile and the specific associated rules are given in part 4;
- a new EN 15273-4:2025 gives the catalogue of gauges and associated rules coming from EN 15273-1:2013+A1:2016;
- a new CEN/TR 15273-5:2025 gives background information coming from EN 15273-1:2013+A1:2016 and worked examples.

In comparison with the previous edition, the following technical modifications have been made:

- the series was fully restructured, from three parts to five parts;
- Clause 3 and Clause 4 now refer to EN 15273-1:2025 where all terms and symbols are defined;
- harmonisation of symbols and index level for all parts of this series of standards;
- grouping in Annex A of the calculation elements specific to all defined templates from the paragraphs of Clause 5, Clause 6, Clause 7 and Clause 8;

- grouping in Annex B of elements specific to the defined kinematic gauge of Clause 5, Clause 6, Clause 7 and Clause 8;
- grouping in Annex C of elements specific to the static gauge defined in Clause 5, Clause 6, Clause 7 and Clause 8;
- improvement and grouping into Annex D of the dynamic gauge specific elements defined in Clause 5, Clause 6, Clause 7 and Clause 8;
- content of 7.3.1.1.3 and 7.3.1.3 moved into CEN/TR 15273-5:2025;
- Annex B, Annex C, Annex D and Annex F moved into EN 15273-4:2025;
- removal of Annex E, Annex I and Annex K;
- reordering of Annex H;
- Annex J moved into CEN/TR 15273-5:2025;
- creation of normative Annex E for the description of the absolute gauging process;
- creation of normative Annex F for the description of the comparative gauging process.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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

The aim of this document is to define the rules for the calculation and verification of the dimensions of rolling stock and infrastructure from a gauging perspective.

This document sets out gauging processes taking into account the relative movements between rolling stock and infrastructure as well as the necessary margins or clearances.

EN 15273-1:2025 covers generic explanations and methods of gauging and is used in conjunction with the following parts:

- *Part 2: Rolling stock;*
- *Part 3: Infrastructure;*
- *Part 4: Catalogue of defined gauges;*
- *Part 5: Background, explanation and worked examples.*

1 Scope

This document contains:

- the definitions and symbols for all EN 15273 documents;
- the general explanation of various elements and phenomena affecting heavy rail gauging;
- the general explanation of various calculation methods and processes applicable to the heavy rail gauging that allow the dimensioning of the rolling stock and the infrastructure.

This document is applicable to heavy rail vehicles and networks using various track gauges. Other vehicles and networks are outside the scope of this document, but the rules may be applied to them with some adjustments and agreement of the share of responsibility between rolling stock and infrastructure.

This document is not applicable to the gauges “S” and “T” for track gauge 1 520 mm.

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 15273-2:2025, *Railway applications — Gauges — Part 2: Rolling stock*

EN 15273-3:2025, *Railway applications — Gauges — Part 3: Infrastructure*

EN 15273-4:2025, *Railway applications — Gauges — Part 4: Catalogue of defined gauges*

EN 15313:2024, *Railway applications — In-service wheelset operation requirements — In-service and off-vehicle wheelset maintenance*

EN 15663:2017+A2:2024, *Railway applications — Vehicle reference masses*

EN 17343:2023, *Railway applications — General terms and definitions*

EN 50119:2020, *Railway applications — Fixed installations — Electric traction overhead contact lines*

EN 50367:2020, *Railway applications — Fixed installations and rolling stock — Criteria to achieve technical compatibility between pantographs and overhead contact line*

3 Terms and definitions

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

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

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

NOTE The term heavy rail is defined in EN 17343:2023.