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Railway applications - Gauges - Part 2: Rolling stock

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Railway applications - Gauges - Part 2: Rolling stockApplications ferroviaires - Gabarits - Partie 2 : Matériel
roulantBahnanwendungen - Begrenzungslinien - Teil 2:
Fahrzeuge

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

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European foreword

This document (EN 15273-2:2025) 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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.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 is one of the series EN 15273, *Railway applications — Gauges* as listed below:

- 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*.

This document supersedes EN 15273-2:2013+A1:2016.

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;
- modification of the whole Clause 5;
- reordering of all specific rules of defined kinematic gauge inside the Annex A to Annex P by moving to the normative Annex A;
- addition of new rules in Annex A about the wheel-zone;
- restructured A.3.13 and A.3.16 into two Annexes, normative Annex B for passive tilting vehicle and informative Annex C for active tilting vehicle;
- addition of a new normative Annex D about the graphical method use for defined kinematic gauge;
- for defined kinematic gauge, removal of all reference profile inside the EN 15273-2:2025 replace in normative Annex E by tables with the links with EN 15273-4:2025 to define the reference profile, basic data and lateral projections;
- for defined static gauge, removal of all reference profile inside the EN 15273-2:2025 replace in normative Annex G by tables with the links with EN 15273-4:2025 to define the reference profile, basic data and lateral projections;

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- regrouping all particular rules for German, Belgian and pantograph gauges in normative Annex E;
- reordering all specific rules of defined static gauge inside the Annex A to Annex P by moving to the normative Annex F;
- for all defined gauges (static, kinematic and dynamic), removal of all formulae for calculating specific lateral reductions and replacement by generic formulae in each normative Annexes A, Annex F and Annex K;
- removal of specific Annex K defined static gauges OSJD;
- removal of normative Annex Q Vehicle widening depending on the available spaces of the infrastructure;
- content of normative Annex R Static and kinematic gauges: list of documents for a vehicle gauge conformance certification moved to normative Annex N list of documents for rolling stock gauge assessment applicable for defined kinematic, static and dynamic gauges;
- addition of absolute gauging process and comparative process in normative Annex M.

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 series EN 15273 is to define the rules for the calculation and verification of the dimensions of rolling stock and infrastructure from a gauging perspective.

This series EN 15273 sets out gauging processes taking into account the relative movements between rolling stock and infrastructure as well as the necessary margins or clearances.

EN 15273-2:2025 covers rolling stock gauges and is used in conjunction with the following parts:

- *Part 1: General — Common rules for rolling stock and infrastructure;*
- *Part 3: Infrastructure;*
- *Part 4: Catalogue of defined gauges;*
- *Part 5: Background, explanation and worked examples.*

EN 15273-2:2025 (E)**1 Scope**

This document is applicable to new vehicle designs, to modifications to existing vehicles and for checking existing vehicles to be used on another route or network.

This document contains:

- the rules for rolling stock for all defined gauges;
- the swept envelope calculation process used for defined dynamic gauges, absolute and comparative process;
- the list of documents required to assess vehicle conformity to this standard.

This document is applicable to heavy rail vehicles 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 14363:2016+A2:2022, *Railway applications — Testing and Simulation for the acceptance of running characteristics of railway vehicles — Running Behaviour and stationary tests*

EN 15273-1:2025, *Railway applications — Gauges — Part 1: General — Common rules for rolling stock and infrastructure*

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

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

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

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

EN 50215:2009, *Railway applications — Rolling stock — Testing of rolling stock on completion of construction and before entry into service*

EN 50367:2020, *Railway applications — Fixed installations and rolling stock — Criteria to achieve technical compatibility between pantographs and overhead contact line¹*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹ Document impacted by A1:2022 and A2:2025.