

STN	Železnice Posudzovanie pevnosti konštrukcií kol'ajových vozidiel Časť 1: Všeobecne	STN EN 17149-1 28 2263
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Railway applications - Strength assessment of rail vehicle structures - Part 1: General

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/24

Obsahuje: EN 17149-1:2024

138756

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD

EN 17149-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2024

ICS 45.060.01

English Version

Railway applications - Strength assessment of rail vehicle structures - Part 1: General

Applications ferroviaires - Évaluation de la résistance
des structures de véhicule ferroviaire - Partie 1 :
Généralités

Bahnanwendungen - Festigkeitsnachweis von
Schienenfahrzeugstrukturen - Teil 1: Allgemeines

This European Standard was approved by CEN on 15 January 2024.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EN 17149-1:2024 (E)

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European foreword

This document (EN 17149-1:2024) 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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

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 part of the series EN 17149 *Railway applications — Strength assessment of rail vehicle structures*, which consists of the following parts:

- *Part 1: General*
- *Part 2: Static strength assessment*

The following part is under preparation:

- *Part 3: Fatigue strength assessment based on cumulative damage*

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

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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EN 17149-1:2024 (E)**Introduction**

The structural design of rail vehicle structures depends on the loads they are subject to and the characteristics of the materials they are manufactured from. This document provides the basic procedure and criteria to enable a strength assessment to be undertaken.

This document does not specify load cases and does not specify in which cases or for which kinds of rail vehicles a strength assessment is to be applied.

1 Scope

This document supports the other standards in the EN 17149 series, in order to ensure consistency of terminology across the series. It describes the basic terms and definitions as well as general procedures for strength assessments of rail vehicle structures that are manufactured, operated and maintained in accordance with standards valid for rail system applications.

This document is applicable to all kinds of rail vehicles.

The assessment procedure is restricted to ferrous materials and aluminium.

This document does not define design load cases.

This document is not applicable for corrosive conditions or elevated temperature operation in the creep range.

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 17149-2:2024, *Railway applications — Strength assessment of rail vehicle structures — Part 2: Static strength assessment*

EN 17149-3:—¹, *Railway applications — Strength assessment of rail vehicle structures — Part 3: Fatigue strength assessment based on cumulative damage*

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

ISO/TR 25901-1:2016, *Welding and allied processes — Vocabulary — Part 1: General terms*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹ Under preparation. Stage at the time of publication prEN 17149-3:2023.