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STN	**Železnice Posudzovanie pevnosti konštrukcií koľajových vozidiel Časť 2: Posudzovanie statickej pevnosti**	**STN EN 17149-2 28 2263**

Railway applications - Strength assessment of rail vehicle structures - Part 2: Static strength assessment

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

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English Version

Railway applications - Strength assessment of rail vehicle structures - Part 2: Static strength assessment

Applications ferroviaires - Évaluation de la résistance des structures de véhicule ferroviaire - Partie 2 : Évaluation de la résistance statique

Bahnanwendungen - Festigkeitsnachweis von Schienenfahrzeugstrukturen - Teil 2: Statischer Festigkeitsnachweis

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 17149-2:2024) 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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.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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Introduction

This document provides procedures and criteria for the static strength assessment based on linear analysis or nonlinear elastic plastic analysis.

It does not define load cases and does not define in which cases, for which structural components or for which kinds of rail vehicles a static strength assessment is to be undertaken.

1 Scope

This document specifies a procedure for static strength assessment of rail vehicle structures.
It is part of a series of standards that specifies procedures for strength assessments of structures of rail vehicles that are manufactured, operated and maintained according to standards valid for railway applications.

The assessment procedure of the series is restricted to ferrous materials and aluminium.

This document series does not define design load cases.

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

This series of standards is applicable to all kinds of rail vehicles. However, it does not define in which cases or for which kinds of rail vehicles a static strength assessment is to be undertaken.

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 12663-1:2010+A2:2023, *Railway applications — Structural requirements of railway vehicle bodies — Part 1: Locomotives and passenger rolling stock (and alternative method for freight wagons)*

EN 12663-2:2010+A1:2023, *Railway applications — Structural requirements of railway vehicle bodies — Part 2: Freight wagons*

EN 13749:2021, *Railway applications — Wheelsets and bogies — Method of specifying the structural requirements of bogie frames*

EN 15227:2020, *Railway applications — Crashworthiness requirements for rail vehicles*

EN 15827:2011, *Railway applications — Requirements for bogies and running gears*

EN 17149-1:2024, *Railway applications — Strength assessment of rail vehicle structures — Part 1: General*

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

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