ICS 45.060.20 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2024

STN	**Železnice Skúšky na overenie jazdných vlastností železničných vozidiel Nákladné vozne Podmienky výnimky pre nákladné vagóny s definovanými vlastnosťami zo skúšky na koľaji podľa EN 14363**	**STN EN 16235** 28 2241

Railway applications - Testing for the acceptance of running characteristics of railway vehicles - Freight wagons - Conditions for dispensation of freight wagons with defined characteristics from on-track tests according to EN 14363

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. 03/24

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EN 16235

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Supersedes EN 16235:2013

English Version

Railway applications - Testing for the acceptance of running characteristics of railway vehicles - Freight wagons - Conditions for dispensation of freight wagons with defined characteristics from on-track tests according to EN 14363

Applications ferroviaires - Essais en vue de l'homologation du comportement dynamique des véhicules ferroviaires - Wagons - Conditions pour la dispense des wagons avec caractéristiques définies concernant les essais en ligne selon l'EN 14363

Bahnanwendungen - Prüfung für die fahrtechnische Zulassung von Eisenbahnfahrzeugen - Güterwagen - Bedingungen für Güterwagen mit definierten Eigenschaften zur Befreiung von Streckenfahrversuchen nach EN 14363

This European Standard was approved by CEN on 1 October 2023.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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European foreword

This document (EN 16235:2023) 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 May 2024, and conflicting national standards shall be withdrawn at the latest by May 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 supersedes EN 16235:2013.

In comparison with the previous edition EN 16235:2013, the following technical modifications have been made:

— Scope adapted to the terminology given in EN 17343:2020 and extended to non-powered special vehicles with operating conditions of freight trains;

— normative references updated;

— references to withdrawn EN 15687:2010 replaced by references to EN 14363:2016+A2:2022 in the whole document;

— in Table 12 and Table 15 the parameter “mass of the wagon” was replaced by a requirement for “axle load” in tare condition;

— modification of the test procedure for a new standardized running gear: requirements for the length of the tested wagons were deleted and replaced by an application range for the wagons based on the lengths of the tested wagons (Table 1 deleted);

— clarification that the use of simulations according to EN 14363:2016+A2:2022 can replace physical testing;

— clarification that the minimum and maximum axle load specified for the application range are the limits for the load conditions for the operation and not necessarily for the design of the wagon;

— Annex ZA deleted.

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

EN 14363:2016+A2:2022 defines the requirements for railway vehicles with respect to running behaviour. The approval process in accordance with EN 14363:2016+A2:2022 including the dispensation defined in this document, is illustrated in normative Annex B, Figure B.1 (flow chart).

It is recognized that experience has demonstrated that running gear fitted to wagons that operate safely can also be fitted to other wagons which are within certain design limits. These other wagons will also operate safely without the need to undergo on-track testing. This experience is based on the characteristics of track design, track maintenance and vehicle maintenance in the European network since 1998. This document defines the process to determine the conditions under which such dispensation from testing can be given for a vehicle defined by the running gear and its relevant parameters together with the associated parameter limits of wagon bodies.

Vehicles for the transport of freight on the railway have historically been subject to standardization. Very early common items like wheels, buffers, draw gear, etc. were developed as standardized components to fulfil safety requirements, for achieving ease of repair and maintenance for international traffic and low cost. Freight wagons have a wide range of applications and consequently the parameters will vary. In the UIC work for the standardization and interchange of freight wagons certain processes for acceptance with respect to running characteristics evolved and these were formalized in UIC 432:2008 and UIC 572:2009 among others. The principles of this document are similar to the intention of these two leaflets.

NOTE Vehicles accepted through the UIC process were also accepted for RIV (Regolamento Internazionale Veicoli) service, i.e. international interchange between the RIV railways. This was replaced by the General Contract of Use for Wagons (GCU) agreement on 1st July 2006. Following the Directive 2008/57/EC the Conventional Rail Technical Specification for Interoperability for Freight Wagons (CR TSI WAG) was elaborated, which contains interoperability requirements for freight wagons.

The following principles apply to the use of this document:

1) the railway system requires comprehensive technical rules in order to ensure an acceptable interaction of vehicle and track;

2) new railway vehicles are approved before being placed into service in accordance with numerous national and international regulations. In addition, existing approval is checked when operating conditions are extended. The approval is based on test results, calculations and/or comparisons with existing vehicles in order to achieve a safety level according to the recognized standards and regulations;

3) it is of particular importance that the existing level of safety and reliability is not compromised even when changes in design and operating practices are demanded.

This document does not prevent the use of the principles laid down applying to other types of rolling stock.

1 Scope

This document defines the process to determine the conditions under which dispensation from on-track testing according to EN 14363:2016+A2:2022 can be given to freight wagons. In its application this document specifies the means by which dispensation from on-track tests is possible.

This document is subordinate to EN 14363:2016+A2:2022.

The dispensation conditions described in this document apply to all freight wagons and non-powered special vehicles with operating conditions of freight trains, which are operated on the heavy rail network with standard gauge (1 435 mm).

NOTE 1 The various rail-inclinations used in Europe (1:20, 1:40 and 1:30) are covered by the conditions for dispensation.

This document is not limited to any type of freight vehicle; however, freight wagons with defined parameters and equipped with certain running gear types, which have been previously accepted, are considered to have a continuing dispensation from on-track testing. The parameters of these freight wagons and running gear are detailed within this document.

NOTE 2 The test procedures described in this document (and in EN 14363:2016+A2:2022) can be applied also to applications with other track gauges e.g. 1 524 mm or 1 668 mm. The limit values could be different. If established running gear are existing in such restricted networks the related ranges of running gear and vehicle parameters for dispensation from on-track tests might be specified together with the operational parameters (speed, cant deficiency, maximum axle load) based on previous tests and operating experiences. These limit values and parameters will be specified on national level.

This document only contains requirements for characteristics related to requirements for on-track tests specified in EN 14363:2016+A2:2022.

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 13715:2020, *Railway applications — Wheelsets and bogies — Wheels — Tread profile*

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 15313:2016, *Railway applications — In-service wheelset operation requirements — In-service and off-vehicle wheelset maintenance*

EN 15551:2022, *Railway applications — Railway rolling stock — Buffers*

EN 15566:2022, *Railway applications — Railway rolling stock — Draw gear and screw coupling*