Raudteealased rakendused. Raudteeveeremi pidurikettad. Osa 1: Veovõlli või teljega ühendatud pidurikettad, nende mõõtmed ja kvaliteedinõuded

Railway applications - Brake discs for railway rolling stock - Part 1: Brake discs pressed or shrunk onto the axle or drive shaft, dimensions and quality requirements

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14535-1:2005+A1:2011 sisaldab Euroopa standardi EN 14535-1:2005+A1:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 14535-1:2005+A1:2011 consists of the English text of the European standard EN 14535-1:2005+A1:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.05.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.05.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 11.05.2011.	Date of Availability of the European standard text 11.05.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 45.060.01

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14535-1:2005+A1

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English Version

Railway applications - Brake discs for railway rolling stock - Part 1: Brake discs pressed or shrunk onto the axle or drive shaft, dimensions and quality requirements

Applications ferroviaires - Disques de frein pour matériel roulant ferroviaire - Partie 1: Disques de frein calés ou frettés sur essieu ou sur arbre moteur, dimensions et exigences de qualité

Bahnanwendungen - Bremsscheiben für Schienenfahrzeuge - Teil 1: Wellenbremsscheiben, aufgepresst oder geschrumpft, Abmessungen und Qualitätsanforderungen

This European Standard was approved by CEN on 28 October 2005 and includes Amendment 1 approved by CEN on 3 April 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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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Ref. No. EN 14535-1:2005+A1:2011: E

Contents

Foreword

This European Standard (EN 14535-1:2005+A1:2011) 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 November 2011 and conflicting national standards shall be withdrawn at the latest by November 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1, approved by CEN on 2011-04-03.

This document supersedes EN 14535-1:2005.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ⟨A1⟩ ⟨A1⟩.

⟨A1⟩ This document has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document. ⟨A1⟩

This EN 14535 consists of the following parts:

— Part 1: Brake discs pressed or shrunk onto the axle or drive-shaft, dimensions and quality requirements;

— Part 2[1)]: Brake discs mounted onto the wheel rim, wheel web or wheel hub, dimensions and quality requirements;

— Part 3[1)]: Brake discs, performance of the disc and of the pad and disc friction couple, classification.

Until Part 3 is made publicly available, the existing relevant national standards or other suitable regulations should be used as an interim solution where prEN 14535-3 is referenced in this document.

NOTE On publication of Part 3, Part 1 may be reviewed to take into account any necessary changes.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[1)] To be published.

Introduction

The requirements given in this European Standard cannot be written in sufficient detail to ensure good workmanship or proper construction. Each manufacturer is therefore responsible for taking every necessary step to make sure that the quality of design, workmanship and construction is such as to ensure accordance with good engineering practice.

1 Scope

This European Standard specifies requirements for the design, dimensions, performance, and testing of the brake disc, hereafter called “disc”. This European Standard applies to discs secured at the axle or drive shaft of railway rolling stock by a cylindrical or conic tapered interference fit.

For each discrete unit so fitted, one or more disc brake rings, each having two axially separated friction faces, may be deployed.

This European Standard applies to discs designed to be fitted to rail vehicles used on the main national networks, urban networks, underground railways, trams and private networks (regional railways, company railways etc.).

NOTE This European Standard should be used in association with the standards prEN 15328 and CEN/TC 256 N 185 covering disc brake linings.

2 Normative references

Not applicable.

3 Terms and definitions

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

3.1
brake disc
rotor having one or more co-planar annular friction faces for the engagement of brake pads and means of transmitting rotation between itself and the associated axle or drive shaft element

NOTE 1 It may absorb and dissipate at least part of the brake energy.

NOTE 2 This definition is identical to 4.9.7.10 in EN 14478:2005.

3.2
friction face
radially and circumferentially extending planar surface of the disc available for frictional engagement of the brake pad(s)

3.3
brake ring
portion of the disc having friction faces

NOTE 1 Brake rings constructed from homogenous material between the friction faces are ”homogenous” or otherwise ”non-homogenous”.

NOTE 2 Brake rings can consist of one or more sectors and can have continuous or non-continuous friction faces.

3.4
hub
portion of the disc having an internal cylindrical or conical surface, the hub bore, for interference fit engagement with the axle or drive shaft

NOTE The hub can be constructed integrally with the brake ring (monobloc disc) or connected to it by a separate linking arrangement.