

STN	Železnice. Brzdenie. Držiak brzdového obloženia.	STN EN 16451 28 4023
------------	---	--

Railway applications - Braking - Brake pad holder

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. 10/15

Obsahuje: EN 16451:2015

121736

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2015
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy
rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 16451

June 2015

ICS 45.040

English Version

Railway applications - Braking - Brake pad holder

Applications ferroviaires - Freinage - Porte-garnitures

Bahnanwendungen - Bremse - Bremsbelaghalter

This European Standard was approved by CEN on 13 May 2015.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Symbols and abbreviations	7
5 Design and manufacture	7
5.1 Latch mechanism.....	7
5.2 Interchangeability by applying same main dimensions and geometry	7
5.2.1 General.....	7
5.2.2 Interchangeability for “conventional” brake unit.....	8
5.2.3 Interchangeability for “compact” brake unit	8
5.2.4 Dimensional conformity.....	8
5.3 Material	8
5.4 Environmental conditions.....	8
5.4.1 Ambient temperature.....	8
5.4.2 Other environmental conditions	8
5.5 Loading in the direction of force application.....	9
5.6 Loading in the direction of the braking moment (tangential force).....	9
5.7 Vibrations and shocks	10
5.7.1 New designs.....	10
5.7.2 Existing designs	10
6 Type test methods	10
6.1 Sampling for type test	10
6.2 Test requirements.....	11
6.3 Test procedure	11
6.3.1 Interchangeability by applying same main dimensions and geometry	11
6.3.2 Material	11
6.3.3 Salt spray test	11
6.3.4 Loading in the direction of force application.....	12
6.3.5 Loading in the direction of the braking moment (tangential force).....	13
6.3.6 Vibrations and shocks	14
7 In-service assessment	17
8 Designation	17
9 Identification and marking	17
Annex A (informative) Interchangeability for “conventional” brake unit	18
Annex B (informative) Interchangeability for “compact” brake unit.....	20
Annex C (informative) Device with mechanical coding	22
Annex D (informative) Geometry of standard brake pads.....	23
D.1 General.....	23
D.2 Space envelope for 1/2 brake pad of 200 cm ² “standard form A”	23
D.3 Space envelope for 1/2 brake pad of 200 cm ² “standard form B”	24
D.4 Space envelope for 1/2 brake pad of 175 cm ² “standard form”	24

D.5	Interchangeability of dovetail for 1/2 brake pad of 175 cm² and 200 cm²	25
Annex E (informative) In-service assessment.....		26
E.1	General	26
E.2	Test set-up and sampling	26
E.3	Procedure	26
E.4	Pass/fail criteria	26

Foreword

This document (EN 16451:2015) 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 December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard gives the requirements to be met for the design, dimensioning, testing and quality assessment of brake pad holders. These requirements 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 workmanship and construction is such as to ensure accordance with good engineering practice.

1 Scope

The requirements contained in this European Standard apply to the brake pad holders with which the rail vehicles of main-line railways, regional and suburban railways are fitted. Brake pad holders pursuant to this standard are to be made from ferrous materials e.g. cast iron, cast steel or forged steel. Brake pad holders made of non-ferrous materials are not subject of this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10204, *Metallic products - Types of inspection documents*

EN 10328, *Iron and steel - Determination of the conventional depth of hardening after surface heating*

EN 14478, *Railway applications - Braking - Generic vocabulary*

EN 22768-1, *General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)*

EN 50125-1, *Railway applications — Environmental conditions for equipment — Part 1: Rolling stock and on-board equipment*

EN 60068-2-6, *Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) (IEC 60068-2-6)*

EN 60068-2-47, *Environmental testing - Part 2-47: Tests - Mounting of specimens for vibration, impact and similar dynamic tests (IEC 60068-2-47)*

EN 60721-3-5:1997, *Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 5: Ground vehicle installations (IEC 60721-3-5:1997)*

EN 61373, *Railway applications — Rolling stock equipment — Shock and vibration tests (IEC 61373)*

EN ISO 6506-1, *Metallic materials - Brinell hardness test - Part 1: Test method (ISO 6506-1)*

EN ISO 6507-1, *Metallic materials - Vickers hardness test - Part 1: Test method (ISO 6507-1)*

EN ISO 6508-1, *Metallic materials - Rockwell hardness test - Part 1: Test method (ISO 6508-1)*

EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227)*

EN ISO 14284, *Steel and iron - Sampling and preparation of samples for the determination of chemical composition (ISO 14284)*

EN ISO 148-1, *Metallic materials - Charpy pendulum impact test - Part 1: Test method (ISO 148-1)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN