ICS 45.060.01 SLOVENSKÁ TECHNICKÁ NORMA Máj 2020

STN	**Železnice Brzdenie Funkčné a výkonnostné kritériá systémov magnetickej koľajnicovej brzdy na použitie v železničných koľajových vozidlách**	**STN EN 16207+A1 28 4022**

Railway applications - Braking - Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock

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

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English Version

Railway applications - Braking - Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock

Applications ferroviaires - Freinage - Critères pour la fonction et la performance des systèmes de freinage magnétiques pour véhicules ferroviaires

Bahnanwendungen - Bremse - Anforderungen an Funktion und Leistungsfähigkeit von Magnetschienenbremssystemen für Schienenfahrzeuge

This European Standard was approved by CEN on 28 June 2014 and includes Amendment 1 approved by CEN on 9 September 2019.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 16207:2014+A1:2019) 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of an identical text or by endorsement, at the latest by May 2020 and conflicting national standards shall be withdrawn at the latest by May 2020.

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 includes Amendment 1 approved by CEN on 9 September 2019.

This document supersedes EN 16207:2014.

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

This document has been prepared under a mandate given to CEN 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.

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1 Scope

This European Standard specifies the functionality, position, constraints and control of a magnetic track brake system (MTB system) installed in bogies for use in emergency braking and in low adhesion conditions on Mainline Trains with speeds up to 280 km/h. It covers high suspension types of MTB only and not high/low and low suspension type of MTB.

This document also contains test methods and acceptance criteria for an MTB system. It identifies interfaces with electrical equipment, bogie, track and other brake systems.

On the basis of the existing international and national standards, additional requirements are defined for:

— conditions of application for the MTB system;

— retardation and brake forces;

— functional and design features;

— strength requirements;

— type, series and vehicle implementation tests.

For design and calculation a “reference surface” is established.

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 10025-2, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels*

EN 13674-1, *Railway applications — Track — Rail — Part 1: Vignole railway rails 46 kg/m and above*

EN 14198, *Railway applications — Braking — Requirements for the brake system of trains hauled by a locomotive*

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

〉A1〉 EN 14531-2 〈A1〈, *Railway applications — Methods for calculation of stopping and slowing distances and immobilisation braking — Part 2: Step by step calculations for train sets or single vehicles*

EN 15085 (all parts), *Railway applications — Welding of railway vehicles and components*

EN 15179, *Railway applications — Braking — Requirements for the brake system of coaches*

EN 15273-1:2013, *Railway applications — Gauges — Part 1: General — Common rules for infrastructure and rolling stock*

EN 15273-2, *Railway applications — Gauges — Part 2: Rolling stock gauge*

EN 15734-1, *Railway applications — Braking systems of high speed trains — Part 1: Requirements and definitions*

EN 15734-2, *Railway applications — Braking systems of high speed trains — Part 2: Test methods*

prEN 16185-1, *Railway applications — Braking systems of multiple unit trains — Part 1: Requirements and definitions*

prEN 16185-2, *Railway applications — Braking systems of multiple unit trains — Part 2: Test methods*

EN 45545-2, *Railway applications — Fire protection on railway vehicles — Part 2: Requirements for fire behavior of materials and components*

EN 50121-3-2, *Railway applications — Electromagnetic compatibility — Part 3-2: Rolling stock — Apparatus*

EN 50124-1, *Railway applications — Insulation coordination — Part 1: Basic requirements — Clearances and creepage distances for all electrical and electronic equipment*

EN 50126, *Railway applications — The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)*

EN 50128, *Railway applications — Communications, signalling and processing systems — Software for railway control and protection systems*

EN 50129, *Railway applications — Communication, signalling and processing systems — Safety related electronic systems for signalling*

EN 60077-1:2002, *Railway applications — Electric equipment for rolling stock — Part 1: General service conditions and general rules (IEC 60077-1:1999, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

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

EN ISO 2409, *Paints and varnishes — Cross-cut test (ISO 2409)*

EN ISO 4628-3, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 3: Assessment of degree of rusting (ISO 4628-3)*

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

〚A1〛 EN 16834:2019, *Railway applications — Braking — Brake performance* 〚A1〛