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| STN | Železnice Aerodynamika Časť 4: Požiadavky a skúšobné postupy na aerodynamiku na otvorenej trati | STN EN 14067-4+A1 28 0340 |
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Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Railway applications - Aerodynamics - Part 4: Requirements and test procedures for aerodynamics on open track

Applications ferroviaires - Aérodynamique - Partie 4:
Exigences et procédures d'essai pour l'aérodynamique
à l'air libre

Bahnanwendungen - Aerodynamik - Teil 4:
Anforderungen und Prüfverfahren für Aerodynamik
auf offener Strecke

This European Standard was approved by CEN on 21 September 2013 and includes Amendment 1 approved by CEN on 28 August 2018.

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EN 14067-4:2013+A1:2018 (E)**European foreword**

This document (EN 14067-4:2013+A1:2018) 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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

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 2018-08-28.

This document supersedes A1 EN 14067-4:2013 A1.

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

A1 *deleted text* A1 The results of the EU-funded research project "AeroTRAIN" (Grant Agreement No. 233985) have been used.

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. A1

A1 *deleted text* A1

EN 14067, *Railway applications — Aerodynamics* consists of the following parts:

- *Part 1: Symbols and units*
- *Part 2: Aerodynamics on open track* (A1 *withdrawn* A1)
- *Part 3: Aerodynamics in tunnels*
- *Part 4: Requirements and test procedures for aerodynamics on open track*
- *Part 5: Requirements and test procedures for aerodynamics in tunnels*
- *Part 6: Requirements and test procedures for cross wind assessment*

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

Introduction

Trains running on open track generate aerodynamic loads on objects and persons they pass. If trains are being passed by other trains, trains are also subject to aerodynamic loading themselves. The aerodynamic loading caused by a train passing an object or a person near the track, or when two trains pass each other, is an important interface parameter between the subsystems of rolling stock, infrastructure and operation and, thus, is subject to regulation when specifying the trans-European railway system.

Trains running on open track have to overcome a resistance to motion which has a strong effect on the required engine power, achievable speed, travel time and energy consumption. Thus, resistance to motion is often subject to contractual agreements and requires standardized test and assessment methods.

EN 14067-4:2013+A1:2018 (E)**1 Scope**

This European Standard deals with requirements, test procedures and conformity assessment for aerodynamics on open track. Addressed within this standard are the topics of aerodynamic loadings and resistance to motion, while the topic of cross wind assessment is addressed by EN 14067-6.

This European Standard refers to rolling stock and infrastructure issues. This standard does not apply to freight wagons. It applies to railway operation on gauges GA, GB and GC according to EN 15273. The methodological approach of the presented test procedures may be adapted to different gauges.

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 1991-2, *Eurocode 1: Actions on structures — Part 2: Traffic loads on bridges*

EN 15273 (all parts), *Railway applications — Gauges*

EN 15663, *Railway applications — Definition of vehicle reference masses*

ISO 8756, *Air quality — Handling of temperature, pressure and humidity data*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN