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English Version

Railway applications - Method for determining the equivalent conicity

Applications ferroviaires - Méthode de détermination de la
conicité équivalente

Bahnanwendungen - Verfahren zur Bestimmung der
äquivalenten Konizität

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 256.

This draft amendment A1, if approved, will modify the European Standard EN 15302:2008. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Foreword

This document (EN 15302:2008/FprA1:2010) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

The "Recast" Directive 2008/57/EC of the European Parliament and of the Council on the interoperability of the rail system within the Community was published on 17th June 2008. The two previous EU Directives 96/48/EC and 2001/16/EC on the interoperability of the High Speed and Conventional rail systems within the Community will therefore be repealed with effect from 19th July 2010. At this date the harmonised standards for the railway field will have to refer to the new Directive.

Annex Z is amended to address this need.

1 Modification to the Foreword

Replace the third and fourth paragraphs with the following:

"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."

2 Modification to the Annex ZA

Replace the Annex ZA with the following:

"

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC

This European Standard has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the Directive 2008/57/EC¹⁾.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 for HS Rolling Stock, in Table ZA.2 for High Speed Infrastructure, in Table ZA.3 Conventional Rail Locomotives and Passenger Rolling Stock and Table ZA.4 for Conventional Rail Infrastructure confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

1) This Directive 2008/57/EC adopted on 17 June 2008 is a recast of the previous Directives 96/48/EC 'Interoperability of the trans-European high-speed rail system' and 2001/16/EC 'Interoperability of the trans-European conventional rail system' and revisions thereof by 2004/50/EC 'Corrigendum to Directive 2004/50/EC of the European Parliament and of the Council of 29 April 2004 amending Council Directive 96/48/EC on the interoperability of the trans-European high-speed rail system and Directive 2001/16/EC of the European Parliament and of the Council on the interoperability of the trans-European conventional rail system'

Table ZA.1 — Correspondence between this European Standard, the HS TSI RST published in the OJEU dated 26 March 2008 and Directive 2008/57/EC

Clause/ sub-clauses of this European Standard	Chapter/§/annexes of the TSI	Corresponding text, articles/§/annexes of the Directive 2008/57/EC	Comments
5.2 Determining the wheel and rail profiles	4 Characteristics of the subsystem	Annex III Essential requirements	Specified subclauses have been underlined in the first column of the table. Nevertheless, the whole standard including all its annexes present a great interest as a support for the implementation of the Directive for the assessment of the running behaviour of the railway vehicles submitted to testing for acceptance and, mainly, for the evaluation of equivalent conicity.
5.3 Determining the rolling radius difference	4.2 Functional and technical specification of the subsystem	1 General requirements	
5.4 Determining the equivalent conicity	4.2.3 Track interaction and gauging	1.1 Safety	
	4.2.3.4 Rolling stock dynamic behaviour	Clauses 1.1.1, 1.1.2	
	§ 4.2.3.4.2 Limit values for running safety	1.5 Technical compatibility	
	§ 4.2.3.4.4 Wheel/rail interface	2 Requirements specific to each subsystem	
	§ 4.2.3.4.5 Design for vehicle stability	2.4 Rolling stock	
	§ 4.2.3.4.6. Definition of equivalent conicity	2.4.3 Technical compatibility §3	
§ 4.2.3.4.7 Design values for wheel profiles			
§ 4.2.3.8 In service values for equivalent conicity			

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Table ZA.2 — Correspondence between this European standard, the HS TSI INF, published in OJEU dated 19 March 2008, and Directive 2008/57/EC

Clause/ sub-clauses of this European Standard	Chapter/§/annexes of the TSI	Corresponding text, articles/§/annexes of the Directive 2008/57/EC	Comments
5.2 Determining the wheel and rail profiles	4 Description of the Infrastructure Domain	Annex III Essential requirements	EN 15302:2006 is made mandatory by being quoted in § 4.2.9.2 of the HS TSI INF (calculation of the equivalent conicity limits set out in Table 1 of the TSI according to EN 15302:2006) EN 15302:2006 should be read as prEN 15302:2006 in 4.2.9.2 of the HS TSI INF. The applicable reference is EN 15302:2008, which is similar to the prEN 15302:2006 version for the content of the Table ZA.2
5.3 Determining the rolling radius difference function Δr	4.2 Functional and technical specifications of the domain	1 General requirements	
5.4 Determining the equivalent conicity	4.2.9. Equivalent conicity	1.1 Safety	
6 Benchmark calculation	§ 4.2.9.2 Design values	Clauses 1.1.1, 1.1.2	
	§ 4.2.9.3 In service values	1.5 Technical compatibility	
	6 Assessment of conformity and/or suitability for use of the constituents and verification of the subsystems		
	§ 6.2.5.2 Infrastructure Subsystem – Technical solutions giving presumption of conformity at design phase – Assessment of equivalent conicity		
	Annex B 1 – Table B 1		

Table ZA.3 — Correspondence between this European Standard, the CR LOC and PASS RST TSI (final draft Rev 4.0 dated 24 November 2009) and Directive 2008/57/EC

Clause/ sub-clauses of this European Standard	Chapter/§/annexes of the TSI	Corresponding text, articles/§/annexes of the Directive 2008/57/EC	Comments
The whole standard is applicable	4 Characteristics of the subsystem 4.2 Functional and technical specification of the sub-system 4.2.3 Track interaction and gauging § 4.2.3.4.3 Rolling stock dynamic behaviour. Equivalent conicity	Annex III Essential requirements 1 General requirements Safety Clauses 1.1.1, 1.1.2 1.5 Technical compatibility 2 Requirements specific to each subsystem 2.4 Rolling stock 2.4.3 Technical compatibility §3	According to the TSI, the equivalent conicity shall be calculated in accordance with EN 15302:2008 for the amplitude (y) of the wheelset's lateral displacement