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**FINAL DRAFT**  
**EN 15273-3:2013**

**FprA1**

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English Version

## Railway applications - Gauges - Part 3: Structure gauges

Applications ferroviaires - Gabarits - Partie 3: Gabarit  
des obstacles

Bahnanwendungen - Begrenzungslinien - Teil 3:  
Lichtraumprofile

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 15273-3:2013. 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.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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

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## European Foreword

This document (EN 15273-3:2013/FprA1:2016) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This document is currently subject to the Unique Acceptance Procedure.

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 the essential requirements of Directive 2008/57/EC.

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

**EN 15273-3:2013/FprA1:2016 (E)****1 Change to the foreword**

*Replace the 4<sup>th</sup> and the 6<sup>th</sup> clauses 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 the essential requirements of Directive 2008/57/EC.

For the relationship with Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.”

**2 Change to Subclause 5.2.1.2, Additional overthrows**

*In the last paragraph, replace “EN 15273-1:2013, 7.2.1.1.” with “EN 15273-1:2013, 7.3.1.1.”.*

**3 Change to Subclause 5.2.1.3, Quasi-static effect**

*In the last but one paragraph, replace “EN 15273-1:2013, 7.2.1.4.” with “EN 15273-1:2013, 7.3.1.4.”.*

**4 Change to Subclause 6.2, Associated rules**

*In the second paragraph, second clause, replace:*

“

—  $S_{i/a}$  additional overthrows (see 5.2.1.2);”

*with*

“

—  $S_{i/a}$  additional overthrows (see 5.2.1.2);

— with a fixed value  $F = (A)q_r + (A)w_r + (A)\frac{l_{\text{nom}} - d}{2}$  taken into consideration on the outside of the static reference profile (see EN 15273-1:2013, Annex B).”

## 5 Change to Subclause 7.2, Associated rules

In the first paragraph, second clause, replace

“

—  $S_{i/a}$  additional overthrows (see 5.2.1.2);”

with

“

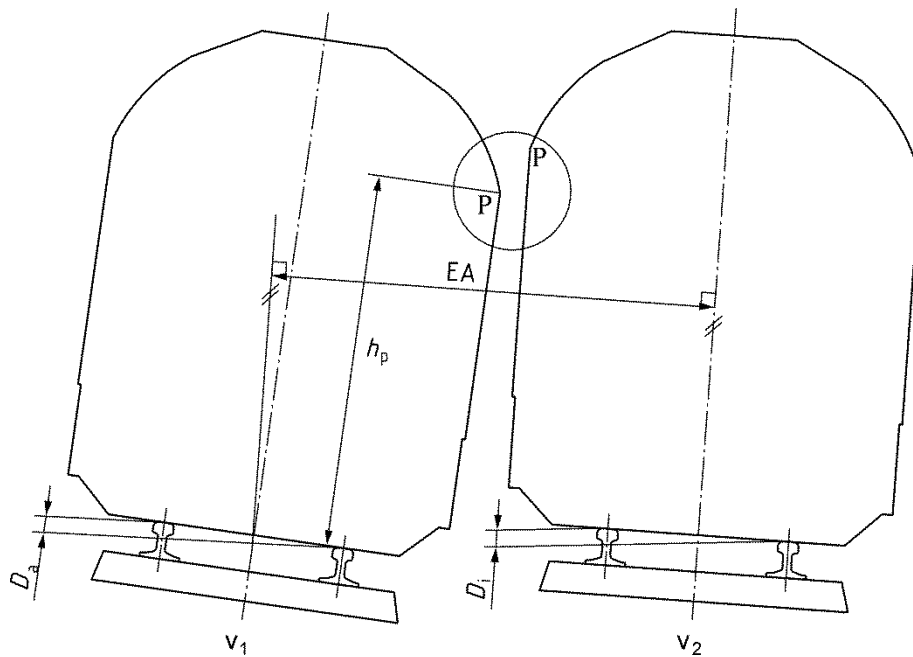
—  $S_{i/a}$  additional overthrows (see 5.2.1.2);

— without the value  $F$ , which is specific to the vehicle and is taken into account on the inside of the kinematic reference profile.”

## 6 Change to Subclause 9.2.2, Effect of cant difference $\Delta b_{\delta D}$

Replace the existing Figure 5 with the following:

“



”

## EN 15273-3:2013/FprA1:2016 (E)

**7 Changes to Subclause A.2.2.1.2, Determination of the semi-width on the inside of the curve**

Replace the existing Formula (A.10) with the following, and add the following Note under the Formula:

$$b_{lim,i} = b_{CR} + S_i + \max[\Sigma'_{2,i} + K \cdot (D - D_0)_{>0}; \Sigma''_2; (\Sigma'_{2,a} - K \cdot I_0)] \quad (A.10)$$

NOTE 1 The infrastructure manager can choose whether or not to apply ">0" and " $\Sigma'_{2,a} - K \cdot I_0$ ".

Replace the existing Formula (A.12) with the following, and add the following Note under the Formula:

$$\Sigma_{2,i} = \max[\Sigma'_{2,i} + K \cdot (D - D_0)_{>0}; \Sigma''_2; (\Sigma'_{2,a} - K \cdot I_0)] - qS_i \quad (A.12)$$

NOTE 2 The infrastructure manager can choose whether or not to apply ">0" and " $\Sigma'_{2,a} - K \cdot I_0$ ".

**8 Changes to Subclause A.2.2.1.3, Determination of the semi-width on the outside of the curve**

Replace the existing Formula (A.13) with the following, and add the following Note under the Formula:

$$b_{lim,a} = b_{CR} + S_a + \max[\Sigma'_{2,a} + K \cdot (I - I_0)_{>0}; \Sigma''_2] \quad (A.13)$$

NOTE 1 The infrastructure manager can choose whether or not to apply ">0".

Replace the existing Formula (A.14) with the following, and add the following Note under the Formula:

$$\Sigma_{2,i} = \max[\Sigma'_{2,i} + K \cdot (D - D_0)_{>0}; \Sigma''_2; (\Sigma'_{2,a} - K \cdot I_0)] - qS_i \quad (A.14)$$

NOTE 2 The infrastructure manager can choose whether or not to apply ">0".



## 9 Changes to Subclause A.2.3.1, In the transverse direction

Replace the existing Formula (A.19a) with the following, and add the following Note under the Formula:

$$b_{ver,i} = b_{CR} + S_i + \max[\Sigma'_{1i} + K \cdot (D - D_0)_{>0}; \Sigma''_{1i}; (\Sigma'_{1a} - K \cdot I_0)] \quad (A.19a)$$

NOTE 1 The infrastructure manager can choose whether or not to apply ">0" and " $\Sigma'_{1a} - K \cdot I_0$ ".

Replace the existing Formula (A.19b) with the following, and add the following Note under the Formula:

$$\Sigma_1 = \max[\Sigma'_{1i} + K \cdot (D - D_0)_{>0}; \Sigma''_{1i}; (\Sigma'_{1a} - K \cdot I_0)] - qs_i \quad (A.19b)$$

NOTE 2 The infrastructure manager can choose whether or not to apply ">0" and " $\Sigma'_{1a} - K \cdot I_0$ ".

Replace the existing Formula (A.20a) with the following, and add the following Note under the Formula:

$$b_{ver,a} = b_{CR} + S_a + \max[\Sigma'_{1a} + K \cdot (I - I_0)_{>0}; \Sigma''_{1a}] \quad (A.20a)$$

NOTE 3 The infrastructure manager can choose whether or not to apply ">0".

Replace the existing Formula (A.20b) with the following, and add the following Note under the Formula:

$$\Sigma_1 = \max[\Sigma'_{1a} + K \cdot (I - I_0)_{>0}; \Sigma''_{1a}] - qs_a \quad (A.20b)$$

NOTE 4 The infrastructure manager can choose whether or not to apply ">0".

## 10 Change to Subclause A.2.4, For the installation nominal distance between centres

Under Formula (A.23), replace the following text:

"The choice of i or a depends on the effect determined for the track in question:

- when the track examined is located on the outside of the curve, the parameters used have subscript "a";
- when the track examined is located on the inside of the curve, the parameters used have the subscript "i".

with the following:

"The i and a subscripts are to be taken into consideration according to Figure 4."

## 11 Change to Subclause A.2.5, For the installation limit distance between centres

Replace the existing Formula (A.27) with the following, and add the following Note under the Formula:

$$EA_2 = 2b_{CR} + S_a + S_i + \max[\Sigma' EA_2 + K \cdot (I - I_0)_{>0} + K \cdot (D - D_0)_{>0}; \Sigma'' EA_2] + \Delta b_{\delta D} \quad (A.27)$$

NOTE The infrastructure manager can choose whether or not to apply ">0".