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RÖÖBASTEE GEOMEETRILINE KVALITEET. OSA 5:  
GEOMEETRILISE KVALITEEDI TASEMED.  
HARGNEMISTETA RAUDTEE RADA, PÖÖRMED JA  
RISTMED

Railway applications - Track - Track geometry quality -  
Part 5: Geometric quality levels - Plain line, switches  
and crossings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13848-5:2017 sisaldb Euroopa standardi EN 13848-5:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 13848-5:2017 consists of the English text of the European standard EN 13848-5:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.08.2017.	Date of Availability of the European standard is 23.08.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 93.100

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 13848-5

August 2017

ICS 93.100

Supersedes EN 13848-5:2008+A1:2010

English Version

Railway applications - Track - Track geometry quality -  
Part 5: Geometric quality levels - Plain line, switches and  
crossings

Applications ferroviaires - Voie - Qualité géométrique  
de la voie - Partie 5 : Niveaux de la qualité géométrique  
de la voie - Voie courante et appareils de voie

Bahnanwendungen - Oberbau - Qualität der  
Gleisgeometrie - Teil 5: Geometrische Qualitätsstufen -  
Gleise, Weichen und Kreuzungen

This European Standard was approved by CEN on 13 July 2017.

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

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## Contents

	Page
<b>European foreword.....</b>	<b>3</b>
<b>1 Scope.....</b>	<b>4</b>
<b>2 Normative references.....</b>	<b>4</b>
<b>3 Terms and definitions .....</b>	<b>4</b>
<b>4 Symbols and abbreviations .....</b>	<b>5</b>
<b>5 General Considerations.....</b>	<b>5</b>
<b>6 Assessment of track geometry quality .....</b>	<b>6</b>
<b>7 Immediate action limits.....</b>	<b>7</b>
<b>7.1 Introductory remarks.....</b>	<b>7</b>
<b>7.2 Track gauge .....</b>	<b>8</b>
<b>7.3 Longitudinal level .....</b>	<b>9</b>
<b>7.4 Cross level.....</b>	<b>10</b>
<b>7.5 Alignment.....</b>	<b>10</b>
<b>7.6 Twist .....</b>	<b>11</b>
<b>8 Alert and intervention limit .....</b>	<b>12</b>
<b>8.1 Introduction.....</b>	<b>12</b>
<b>8.2 Mean track gauge over 100 m.....</b>	<b>12</b>
<b>Annex A (informative) Relative importance of the various parameters.....</b>	<b>14</b>
<b>A.1 Track-vehicle system.....</b>	<b>14</b>
<b>A.2 Influence of track geometry parameters on vehicle behaviour and safety .....</b>	<b>15</b>
<b>A.3 Other criteria.....</b>	<b>15</b>
<b>Annex B (informative) Alert and intervention limits.....</b>	<b>17</b>
<b>B.1 Introduction .....</b>	<b>17</b>
<b>B.2 Alert limit and intervention limit.....</b>	<b>17</b>
<b>B.2.1 Track gauge .....</b>	<b>17</b>
<b>B.2.2 Longitudinal level .....</b>	<b>18</b>
<b>B.2.3 Cross level.....</b>	<b>18</b>
<b>B.2.4 Alignment.....</b>	<b>19</b>
<b>B.2.5 Twist .....</b>	<b>19</b>
<b>Annex C (normative) Twist limits for nominal track gauge of 1668 mm.....</b>	<b>21</b>
<b>Annex D (informative) A-Deviations .....</b>	<b>22</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive 2008/57/EC .....</b>	<b>23</b>
<b>Bibliography.....</b>	<b>25</b>

## European foreword

This document (EN 13848-5:2017) 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 February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 supersedes EN 13848-5:2008+A1:2010.

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.

This European Standard is one of the series EN 13848 *Railway applications – Track – Track geometry quality* as listed below:

- *Part 1: Characterization of track geometry*
- *Part 2: Measuring systems – Track recording vehicles*
- *Part 3: Measuring systems – Track construction and maintenance machines*
- *Part 4: Measuring systems – Manual and light weight devices*
- *Part 5: Geometric quality levels – Plain line, switches and crossings*
- *Part 6: Characterization of track geometry quality*

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard defines the minimum requirements for the quality levels of track geometry, and specifies the safety related limits for each parameter as defined in EN 13848-1 and measured by any track geometry measurement system as defined in EN 13848-2, EN 13848-3 and EN 13848-4.

This European Standard covers the following topics:

- immediate action limits (IAL);
- recommendations on tolerance levels for isolated defects;
- relative importance of parameters with respect to the vehicle behaviours.

The necessity to measure, the frequency of measurements and the selection of measured parameters are not covered by this European Standard.

This European Standard applies to high-speed and conventional lines, including switches and crossings, of 1 435 mm and wider gauge railways provided that the vehicles operated on those lines comply with EN 14363 and other vehicle safety standards.

This European Standard does not apply to Urban Rail Systems.

## 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 13848-1:2003+A1:2008, *Railway applications - Track - Track geometry quality - Part 1: Characterisation of track geometry*

EN 14363:2016, *Railway applications - Testing and Simulation for the acceptance of running characteristics of railway vehicles - Running Behaviour and stationary tests*

EN 13803:2017, *Railway applications - Track - Track alignment design parameters - Track gauges 1 435 mm and wider*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **nominal track gauge**

reference value for track gauge used by individual networks

### 3.2

#### **design track gauge**

design value of track gauge for a given track section, which might be different from the nominal track gauge

### 3.3

#### **mean track gauge**

sliding arithmetic mean track gauge over a specified distance

Note 1 to entry: In this European Standard a length of 100 m is applied.