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RÖÖBASTEE GEOMEETRILINE KVALITEET. OSA 1:
RÖÖBASTEE GEOMEETRILINE ISELOOMUSTUS

Railway applications - Track - Track geometry quality -
Part 1: Characterisation of track geometry

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13848-1:2019 sisaldab Euroopa standardi EN 13848-1:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 13848-1:2019 consists of the English text of the European standard EN 13848-1:2019.
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English Version

**Railway applications - Track - Track geometry quality -
Part 1: Characterization of track geometry**

Applications ferroviaires - Voie - Qualité géométrique
de la voie - Partie 1: Caractérisation de la géométrie de
voie

Bahnanwendungen - Oberbau - Gleislagequalität - Teil
1: Beschreibung der Gleisgeometrie

This European Standard was approved by CEN on 23 December 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 13848-1:2019) 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of an identical text or by endorsement, at the latest by September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.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 supersedes EN 13848-1:2003+A1:2008.

The main changes with respect to the previous edition are listed below:

- Uncertainty and resolution values are exported to the relevant other parts (EN 13848-2, -3 and -4);
- Addition of *D0* domain;
- New Annex A on decolouring;
- Improvement of Annex B on mainly cyclic top and dip angle;
- New Annex C and D on filtering;
- New Annex F on simulation.

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 EN 13848 series, *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 lightweight devices;*
- *Part 5: Geometric quality levels — Plain line, switches and crossings;*
- *Part 6: Characterisation 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.

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1 Scope

This document gives definitions for the principal track geometry parameters and specifies minimum requirements for measurement and the analysis methods. The aim is to allow the comparability of the output of different measuring systems.

This document does not apply to Urban Rail Systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13848-2, *Railway applications — Track — Track geometry quality — Part 2: Measuring systems — Track recording vehicles*

EN 13848-3, *Railway applications — Track — Track geometry quality — Part 3: Measuring systems — Track construction and maintenance machines*

EN 13848-4, *Railway applications — Track — Track geometry quality — Part 4: Measuring systems — Manual and lightweight devices*

EN 13848-5:2017, *Railway applications — Track — Track geometry quality — Part 5: Geometric quality levels — Plain line, switches and crossings*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE Refer also to the symbols and definitions described in Clause 4.

3.1

track geometry quality

assessment of excursions in the vertical and lateral planes from the mean or designed geometrical characteristics of specified parameters which give rise to safety concerns or have a correlation with ride quality

3.2

gauge face

inside face of the running rail head

3.3

running table

upper surface of the head of the rail

Note 1 to entry: See Figure 1.