

**Raudteelased rakendused. Rööbastee. 1435 mm ja
laiema rööpmelaiusega rööbastee projekteerimine. Osa
1: Raudteerada**

Railway applications - Track - Track alignment design
parameters - Track gauges 1435 mm and wider - Part 1:
Plain line

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13803-1:2010 sisaldab Euroopa standardi EN 13803-1:2010 ingliskeelset teksti.

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English Version

**Railway applications - Track - Track alignment design
parameters - Track gauges 1435 mm and wider - Part 1: Plain
line**

Applications ferroviaires - Voies - Paramètres de
conception du tracé de la voie - Écartement 1435 mm et
plus large - Partie 1: Voie courante

Bahnanwendungen - Oberbau - Linienführung in Gleisen -
Spurweiten 1 435 mm und größer - Teil 1: Durchgehendes
Hauptgleis

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Foreword

This document (EN 13803-1:2010) 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes ENV 13803-1:2002.

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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

- Council Directive 96/48/EC of 23 July 1996 on the interoperability of the European high-speed network¹
- European Parliament and Council Directive 2004/17/EC of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors²
- Council Directive 91/440/EEC of 29 July 1991 on the development of the Community's railways³

EN 13803, *Railway applications – Track – Track alignment design parameters – Track gauges 1435 mm and wider* consists of the following parts:

- *Part 1: Plain line*
- *Part 2: Switches and crossings and comparable alignment design situations with abrupt changes of the curvature*

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

¹ Official Journal of the European Communities N° L 235 of 1996-09-17

² Official Journal of the European Communities N° L 134 of 2004-04-30

³ Official Journal of the European Communities N° L 237 of 1991-08-24

1 Scope

This European Standard specifies the rules and limits that determine permissible speed for a given track alignment. Alternatively, for a specified permissible speed, it defines limits for track alignment design parameters.

More restrictive requirements of the High Speed TSI Infrastructure and the Conventional Rail TSI Infrastructure, as well as other (national, company, etc.) rules will apply.

This European Standard applies to main lines with track gauges 1435 mm and wider with permissible speeds between 80 km/h and 300 km/h. Annex C (informative) describes the conversion rules which can be applied for tracks with gauges wider than 1435 mm. Normative Annex D is applied for track gauges wider than 1435 mm.

However, the values and conditions stated for this speed range can also be applied to lines where permissible speeds are less than 80 km/h, but in this case, more or less restrictive values may need to be used and should be defined in the contract.

This European Standard need not be applicable to certain urban and suburban lines.

This European Standard also takes account of vehicles that have been approved for high cant deficiencies.

For the operation of tilting trains, specific requirements are defined within this European Standard.

2 Normative references

The following referenced documents are indispensable for the application 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 13803-2, *Railway applications — Track — Track alignment design parameters — Track gauges 1435 mm and wider — Part 2: Switches and crossings and comparable alignment design situations with abrupt changes of curvature*

EN 14363, *Railway applications — Testing for the acceptance of running characteristics of railway vehicles — Testing of running behaviour and stationary tests*

EN 15686, *Railway applications — Testing for the acceptance of running characteristics of railway vehicles with cant deficiency compensation system and/or vehicles intended to operate with higher cant deficiency than stated in EN 14363:2005, Annex G*

EN 15687, *Railway applications — Testing for the acceptance of running characteristics of freight vehicles with static wheel axle higher than 225 kN and up to 250 kN*

ISO 80000-3, *Quantities and units — Part 3: Space and time*

3 Terms and definitions

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

3.1

alignment element

segment of the track with either vertical direction, horizontal direction or cant obeying a unique mathematical description as function of longitudinal distance

NOTE Unless otherwise stated, the appertaining track alignment design parameters are defined for the track centre line and the longitudinal distance for the track centre line is defined in a projection in a horizontal plane.