BS EN 13803:2017

BSI Standards Publication

Railway applications - Track - Track alignment design parameters - Track gauges 1 435 mm and wider

National foreword

This British Standard is the UK implementation of EN 13803:2017. It supersedes BS EN 13803-1:2010 and BS EN 13803-2:2006+A1:2009, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RAE/2, Railway Applications - Track.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2017

ISBN 978 0 580 82260 5

ICS 93.100

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2017.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13803

April 2017

ICS 93.100

Supersedes EN 13803-1:2010, EN 13803-2:2006+A1:2009

English Version

Railway applications - Track - Track alignment design parameters - Track gauges 1 435 mm and wider

Applications ferroviaires - Voie - Paramètres de conception du tracé de la voie - Écartement 1 435 mm et plus large

Bahnanwendungen - Oberbau - Trassierungsparameter - Spurweiten 1 435 mm und größer

This European Standard was approved by CEN on 21 December 2016.

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.

CEN members are the national standards bodies of 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 United Kingdom.

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

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

Ref. No. EN 13803:2017 E

Contents

Page

European foreword

This document (EN 13803:2017) 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 October 2017, and conflicting national standards shall be withdrawn at the latest by October 2017.

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 13803-1:2010 and EN 13803-2:2006+A1:2009.

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.

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, 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

The purpose of this European Standard is to specify rules and limits for track alignment design parameters, including alignments within switches and crossings. Several of these limits are functions of speed. Alternatively, for a given track alignment, it specifies rules and limits that determine permissible speed.

This European Standard applies to nominal track gauges 1 435 mm and wider with speeds up to 360 km/h. Normative Annex A describes the conversion rules which shall be applied for tracks with nominal gauges wider than 1 435 mm. Normative Annex B is applied for nominal track gauges 1 520 mm, 1 524 mm and 1 668 mm.

This European Standard is also applicable where track alignment takes into account vehicles that have been approved for high cant deficiencies (including tilting trains).

More restrictive requirements of Technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union (TSI INF) and other (national, company, etc.) rules will apply.

This European Standard need not be applicable to lines, or dedicated parts of railway infrastructure that are not interoperable with railway vehicles tested and approved according to EN 14363.

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 13848-5, *Railway applications — Track — Track geometry quality — Part 5: Geometric quality levels — Plain line*

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

EN 15273-1, *Railway applications — Gauges — Part 1: General — Common rules for infrastructure and rolling stock*

EN 15273-2, *Railway applications — Gauges — Part 2: Rolling stock gauge*

EN ISO 80000-3, *Quantities and units - Part 3: Space and time (ISO 80000-3)*

3 Terms and definitions

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

3.1
track gauge
distance between the corresponding running edges of the two rails

3.2
nominal track gauge
single value which identifies the track gauge but may differ from the design track gauge, e.g. the most widely used track gauge in Europe that has a nominal value of 1 435 mm although this is not the design track gauge normally specified