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Railway applications - Ballastless track systems - Part 1: General requirements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Railway applications - Ballastless track systems - Part 1: General requirements

Applications ferroviaires - Systèmes de voie sans ballast - Partie 1 : Exigences générales

Bahnanwendungen - Feste Fahrbahn-Systeme - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 11 May 2017.

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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

Ref. No. EN 16432-1:2017 E

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European foreword

This document (EN 16432-1:2017) 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of an identical text or by endorsement, at the latest by January 2018, and conflicting national standards shall be withdrawn at the latest by January 2018.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 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.

This European Standard is one of the series EN 16432 “*Railway applications - Ballastless track systems*” as listed below:

— *Part 1: General requirements;*

— *Part 2: System design, subsystems and components;*

— *Part 3: Acceptance* (under preparation).

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.

Introduction

This European Standard is intended to be used by customers, designers and specifiers of ballastless track systems as well as for reference and development by suppliers and construction contractors.

The content and relationship between part 1, 2 and 3 are shown in Figure 1.

This part of the series EN 16432 covers the general requirements for ballastless track systems.

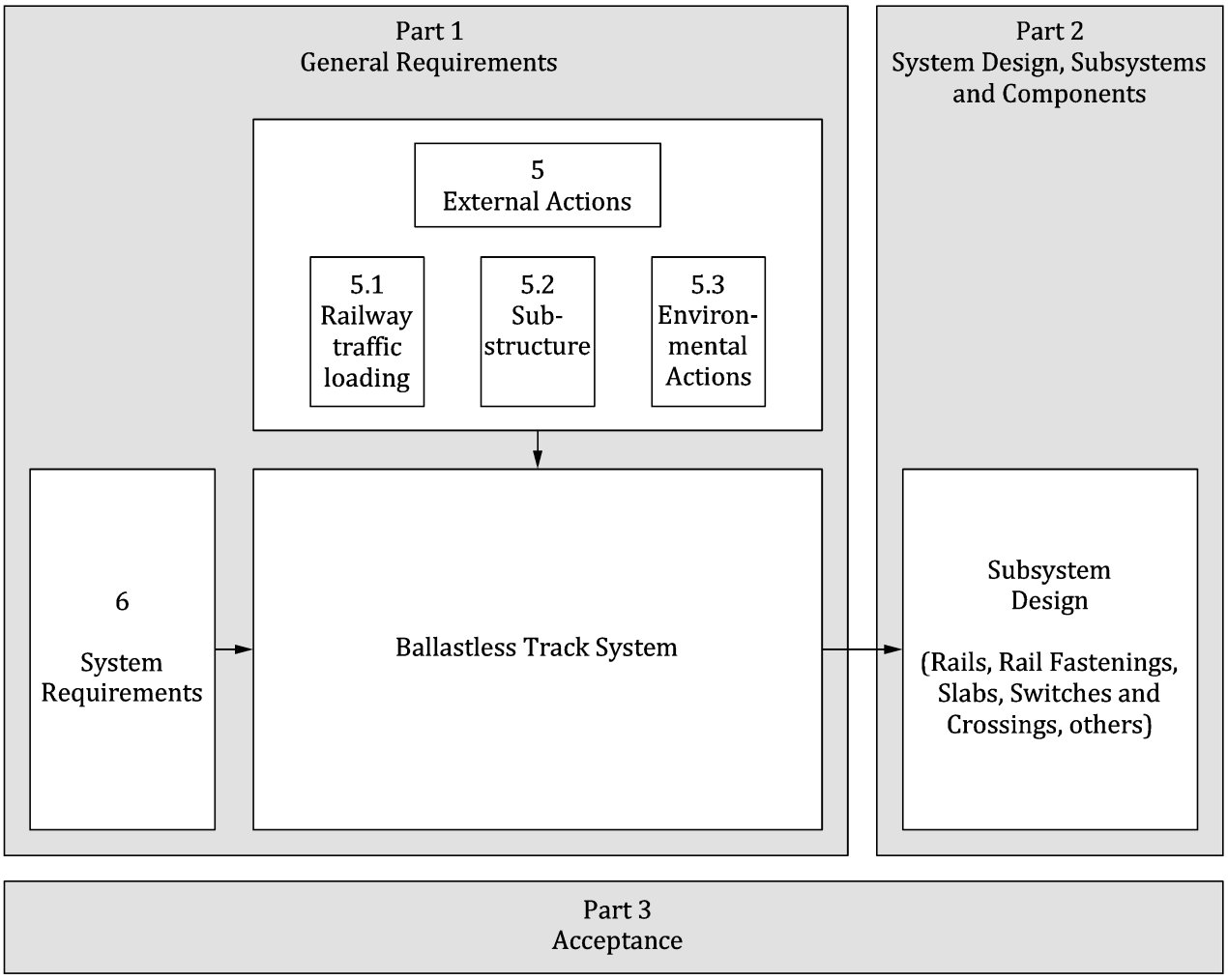

Figure 1 — Structure of EN 16432-1, EN 16432-2 and EN 16432-3

1 Scope

This European Standard defines the general requirements concerning the design of ballastless track systems.

It does not include any requirements for inspecting, maintaining, repairing and replacing ballastless track systems during operation.

This European Standard is applicable to all railway applications up to 250 kN axle load.

The requirements of this standard apply to:

— plain line track, switches and crossings and rail expansion joints;

— various substructures like embankments and cuttings, tunnels, bridges or similar, with or without floating slabs;

— transitions between different substructures;

— transitions between different ballastless track systems;

— transitions between ballasted and ballastless track systems.

NOTE Requirements for characterization of the substructures listed above are included in this standard. Design of the substructures is covered by other European Standards, e.g. EN 1992–2, EN 1997–1, etc..

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 1991-2:2003, *Eurocode 1: Actions on structures - Part 2: Traffic loads on bridges*

EN 1997-1, *Eurocode 7: Geotechnical design - Part 1: General rules*

EN 50122 (series), *Railway applications - Fixed installations - Electrical safety, earthing and the return circuit*

EN 13481-5, *Railway applications - Track - Performance requirements for fastening systems - Part 5: Fastening systems for slab track with rail on the surface or rail embedded in a channel*

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

EN 13848-6, *Railway applications - Track - Track geometry quality - Part 6: Characterisation of track geometry quality*

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

EN 15273-3, *Railway applications - Gauges - Part 3: Structure gauges*

EN 15528, *Railway applications - Line categories for managing the interface between load limits of vehicles and infrastructure*

EN 16207, *Railway applications - Braking - Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock*