

BS EN 13230-5:2016



BSI Standards Publication

Railway applications — Track — Concrete sleepers and bearers

Part 5: Special elements

National foreword

This British Standard is the UK implementation of EN 13230-5:2016. It supersedes BS EN 13230-5:2009 which is withdrawn.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.

© The British Standards Institution 2016. Published by BSI Standards Limited 2016

ISBN 978 0 580 84809 4

ICS 91.100.30; 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 31 May 2016.

Amendments issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD

EN 13230-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2016

ICS 91.100.30; 93.100

Supersedes EN 13230-5:2009

English Version

Railway applications - Track - Concrete sleepers and bearers - Part 5: Special elements

Applications ferroviaires - Voie - Traverses et supports
en béton - Partie 5 : Eléments spéciauxBahnanwendungen - Oberbau - Gleis- und
Weichenschwellen aus Beton - Teil 5: Sonderformen

This European Standard was approved by CEN on 4 March 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, 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**

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Requirements	5
5	Product testing	6
6	Manufacturing	6
7	Data to be supplied	6
Annex A (informative) Definition of special elements – Basic examples		7
A.1	Prestressed concrete special elements	7
A.1.1	Special sleepers	7
A.1.2	Special bearers	7
A.2	Reinforced concrete special elements	8
A.2.1	Special sleepers	8
A.2.2	Blocks for ballastless tracks	8

European foreword

This document (EN 13230-5:2016) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document supersedes EN 13230-5:2009.

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 November 2016, and conflicting national standards shall be withdrawn at the latest by November 2016.

This European Standard is one of the EN 13230 (series) “*Railway applications – Track – Concrete sleepers and bearers*”, which consist of the following parts:

- Part 1: General requirements;
- Part 2: Prestressed monoblock sleepers;
- Part 3: Twin-block reinforced sleepers;
- Part 4: Prestressed bearers for switches and crossings;
- Part 5: Special elements;
- Part 6: Design.

There is a change in the wording of the documents of EN 13230 (series): “design bending moment” is replaced by “characteristic bending moment” and “test bending moment”.

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

Introduction

This part of the EN 13230 series defines the specific requirements relating to special elements.

These are additional requirements to EN 13230-1:2016 that are necessary to have a complete standard dealing with special elements.

These special elements are prestressed concrete special elements as special sleepers or special bearers and reinforced concrete special elements. They are generally used within specific domains of the track for ballastless tracks, for bridges, or with check rails for instance.

This part of EN 13230 defines additional technical criteria and control procedures related to manufacturing and testing special elements. It completes the requirements of EN 13230-2:2016, EN 13230-3:2016 and EN 13230-4:2016.

1 Scope

This part of the EN 13230 series defines additional technical criteria and control procedures for manufacturing and testing special elements.

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 13230-1:2016, *Railway applications – Track – Concrete sleepers and bearers – Part 1: General requirements*

EN 13230-2:2016, *Railway applications – Track – Concrete sleepers and bearers – Part 2: Prestressed monoblock sleepers*

EN 13230-3:2016, *Railway applications – Track – Concrete sleepers and bearers – Part 3: Twin-block reinforced sleepers*

EN 13230-4:2016, *Railway applications – Track – Concrete sleepers and bearers – Part 4: Prestressed bearers for switches and crossings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13230-1:2016 and the following apply.

3.1

special element

any individual concrete element supporting rails in the field of railway track construction, to which this standard is relevant, but which is not included in EN 13230-2:2016, EN 13230-3:2016 or EN 13230-4:2016 (slabs and longitudinal beams are excluded)

4 Requirements

A special element shall be defined by detailed drawings including tolerances.

All the tolerances specified in EN 13230-1:2016 which relate to the concrete elements, the rails, the fastening system and gauge shall be specified by the purchaser.

The purchaser shall specify the positive and negative characteristic bending moments to be applied:

- a) at the rail seat section;
- b) at the centre section or any relevant section.