

**Raudteealased rakendused. Rööbastee. Pöörmed ja ristmed. Osa 8: Pikenemiskompensaatorid**  
**KONSOLIDEERITUD TEKST**

Railway applications - Track - Switches and crossings - Part 8: Expansion devices CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13232-8:2007+A1:2011 sisaldab Euroopa standardi EN 13232-8:2007+A1:2011 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.10.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.10.2011.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13232-8:2007+A1:2011 consists of the English text of the European standard EN 13232-8:2007+A1:2011.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 19.10.2011.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

**Railway applications - Track - Switches and crossings - Part 8:  
Expansion devices**

Applications ferroviaires - Voie - Appareils de voie - Partie  
8: Appareils de dilatation

Bahnanwendungen - Oberbau - Weichen und Kreuzungen -  
Teil 8: Auszugsvorrichtungen

This European Standard was approved by CEN on 17 February 2007 and includes Amendment 1 approved by CEN on 13 September 2011.

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## Foreword

This document (EN 13232-8:2007+A1:2011) 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of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

**A1** This document has been prepared under a mandate given to CEN/CENELEC/ETSI 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. **A1**

This document includes Amendment 1, approved by CEN on 2011-09-13.

This document supersedes EN 13232-8:2007.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

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 series of standards "*Railway applications — Track — Switches and crossings*" covers the design and quality of switches and crossings in flat bottomed rail. The list of Parts is as follows:

- *Part 1: Definitions*
- *Part 2: Requirements for geometric design*
- *Part 3: Requirements for wheel/rail interaction*
- *Part 4: Actuation, locking and detection*
- *Part 5: Switches*
- *Part 6: Fixed common and obtuse crossings*
- *Part 7: Crossings with moveable parts*
- *Part 8: Expansion devices*
- *Part 9: Layouts*

Part 1 contains terminology used throughout all parts of the standard. Parts 2 to 4 contain basic design guides and are applicable to all switch and crossing assemblies. The latter parts, from 5 onwards, deal with particular types of equipment, including their tolerances. Part 9 defines the functional and geometric dimensions and tolerances for layout assemblies. These use Parts 1 to 4 as a basis.

The following terms are used within to define the parties involved in using the EN as the technical basis for a transaction:

Customer	The Operator or User of the equipment, or the Purchaser of the equipment on the User's behalf.
Supplier	The body responsible for the use of the EN in response to the Customer's requirements.

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 United Kingdom.

## Introduction

An expansion device is a device which permit longitudinal relative rail movement of two adjacent rails, while maintaining correct guidance and support.

These longitudinal movements may be required in:

- a) interrupted CWR (continuously welded rail);
- b) structure movement;
- c) or a combination of both.

## 1 Scope

This part of EN 13232 covers the following subjects: to establish a working terminology for expansion devices, for their constituent parts and for the types; to specify the minimum manufacturing requirements for expansion devices and their constituent parts; to formulate codes of practice for inspection and tolerances; to define the method by which expansion devices and their parts should be identified and traced.

## 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 13146-1, *Railway applications — Track — Test methods for fastening systems — Part 1: Determination of longitudinal rail restraint*

EN 13232-2, *Railway applications — Track — Switches and crossings — Part 2: Requirements for geometric design*

EN 13232-3, *Railway applications — Track — Switches and crossings — Part 3: Requirements for wheel/rail interaction*

EN 13232-9, *Railway applications — Track — Switches and crossings — Part 9: Layouts*

EN 13715, *Railway applications — Wheelsets and bogies — Wheels — Wheels tread*

UIC 510-2, *Trailing stock: wheels and wheelsets — Conditions concerning the use of wheels of various diameters*

## 3 Terms and definitions

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

### 3.1 General definitions

#### 3.1.1

##### **hand (of half set) – adjustment switch (bayonet type)**

LH (left hand) half set or RH (right hand) when viewed standing in the track gauge and facing the tips of the inside rails.

With check rails, there may be two LH or two RH half sets, see Figure 6, or opposite hand half sets

#### 3.1.2

##### **hand (of half set) – expansion switch**

LH half set or a RH half set when viewed standing in the track gauge and facing the toes of the expansion switch

#### 3.1.3

##### **expansion capacity C**

maximum permissible relative longitudinal movement between the two rails, where:

$$C = D_{\max} - D_{\min}$$