

**Raudteealased rakendused. Rööbastee.
Riströöpad ja pöörangud. Osa 8:
Laiendusseadmed**

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13232-8:2007 sisaldab Euroopa standardi EN 13232-8:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 31.05.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13232-8:2007 consists of the English text of the European standard EN 13232-8:2007.</p> <p>This document is endorsed on 31.05.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>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.</p>	<p>Scope:</p> <p>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.</p>
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Võtmesõnad:

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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.

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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 Management Centre has the same status as the official versions.

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Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 96/48/EC of the European Parliament and of the Council of the 23 July 1996 on the interoperability of the trans-European high-speed rail system, as modified by EU Directive 2004/50/EC of 29 April 2004	34

Foreword

This document (EN 13232-8:2007) 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 September 2007, and conflicting national standards shall be withdrawn at the latest by September 2007.

This European Standard has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association to support Essential Requirements of EU Directives 96/48, as modified by EU Directive 2004/50 of 29 April 2004.

For relationship between this document and the Essential Requirements of EU Directive 96/48/EC of the European Parliament and of the Council of 23 July 1996 on the interoperability of the trans-European high-speed rail system, as modified by EU Directive 2004/50/EC of 29 April 2004, see informative Annex ZA, which is an integral part of this document.

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, 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:

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