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STANDARD

**I.S. EN 13232-1:2003**

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45.080

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**RAILWAY APPLICATIONS - TRACK -**

**SWITCHES AND CROSSINGS -**

**PART 1: DEFINITIONS**

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EUROPEAN STANDARD  
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English version

**Railway applications - Track - Switches and crossings - Part 1:  
Definitions**

Applications ferroviaires - Voie - Appareils de voie - Partie  
1: Définitions

Bahnanwendungen - Oberbau - Weichen und Kreuzungen -  
Teil 1: Definitionen

This European Standard was approved by CEN on 17 January 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This document (EN 13232-1:2003) 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of an identical text or by endorsement, at the latest by February 2004, and conflicting national standards shall be withdrawn at the latest by February 2004.

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 : Requirements for 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 this series. Parts 2 to 4 contain basic design guides and are applicable to all switch and crossing assemblies. Parts 5 to 8 deal with particular types of equipment including their tolerances. These use Parts 1 to 4 as a basis. Part 9 defines the functional and geometric dimensions and tolerances for layout assembly.

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.

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

# EN 13232-1:2003 (E)

## 1 Scope

This European Standard provides an accepted "terminology" for switch and crossing work. With the assistance of diagrams, the various components are given definitions, and these specific names are regarded as obligatory.

The definitions cover the constituent parts and design geometry of switch and crossing work, and include the movement of switches. Additional terminology of a more specific nature will be defined in the relevant part of the series.

The present definitions set out the terms most generally used for the geometrical form and the construction of switches and crossings, omitting those of too special a nature.

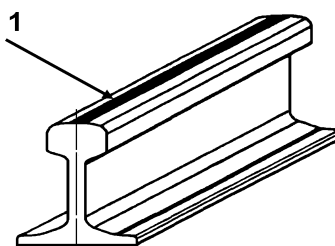
## 2 General definitions

### 2.1 contact area

those parts of the rail ensuring the support and/or guidance, inside or outside, of a wheel. See Figure 5.

### 2.2 running table

upper surface of the head of a rail. See Figure 1.



#### Key

1 Running table

Figure 1

### 2.3 running surface

curved surface defined by the longitudinal displacement of a straight line perpendicular to the centre-line of the track and tangential to both running tables. See Figure 2.

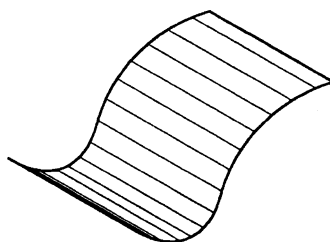


Figure 2

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