

SVENSK STANDARD

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Railway applications – Track – Switches and crossings – Part 6: Fixed common and obtuse crossings

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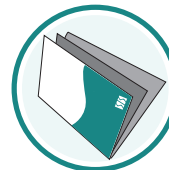
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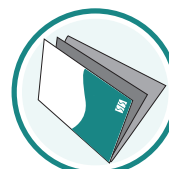
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Denna standard ersätter SS-EN 13232-6:2005, utgåva 1.

The European Standard EN 13232-6:2005+A1:2011 has the status of a Swedish Standard. This document contains the official version of EN 13232-6:2005+A1:2011.

This standard supersedes the Swedish Standard SS-EN 13232-6:2005, edition 1.

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EUROPEAN STANDARD

EN 13232-6:2005+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2011

ICS 93.100

Supersedes EN 13232-6:2005

English Version

Railway applications - Track - Switches and crossings - Part 6: Fixed common and obtuse crossings

Applications ferroviaires - Voie - Appareils de voie - Partie
6: Cœurs de croisement et de traversée à pointes fixes

Bahnanwendungen - Oberbau - Weichen und Kreuzungen -
Teil 6: Starre einfache und doppelte Herzstücke

This European Standard was approved by CEN on 8 August 2005 and includes Amendment 1 approved by CEN on 13 September 2011.

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Foreword

This document (EN 13232-6:2005+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of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.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 13232-6:2005.

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 bottom rails. 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 this European Standard.

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 geometrical 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.

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.

1 Scope

The scope of this European Standard is to:

- establish a working terminology for fixed crossings and their constituent parts, and identify the main types;
- specify the different and varying ways by which crossings can be described using the following parameters:
 - geometry of the crossing;
 - types of construction;
 - design criteria;
 - manufacturing processes;
 - tolerances and inspection.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13145, *Railway applications – Track – Wood sleepers and bearers*

EN 13146 (all parts), *Railway applications – Track – Test methods for fastening systems*

EN 13230 (all parts), *Railway applications – Track – Concrete sleepers and bearers*

EN 13232-1:2003, *Railway applications – Track – Switches and crossings – Part 1: Definitions*

EN 13232-2:2003, *Railway applications – Track – Switches and crossings – Part 2: Requirements for geometric design*

EN 13232-3:2003, *Railway applications – Track – Switches and crossings – Part 3: Requirements for wheel/rail interaction*

EN 13481 (all parts), *Railway applications – Track – Performance requirements for fastening systems*

EN 13674 (all parts), *Railway applications – Track – Rail*

prEN 13803-2, *Railway applications – Track alignment design parameters – Track gauges 1 435 mm and wider – Part 2: Switches and crossings and comparable alignment design situations with abrupt changes of curvature*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13232-1:2003, 6.4, 6.5 and 7.5, and the following apply.

3.1 Parts of crossings

3.1.1 Common crossing

3.1.1.1

overall crossing length

length between the furthest wing front joint from the nose and the furthest vee joint from the nose

3.1.1.2

wing front

length of wing (rail) in front of the crossing nose

3.1.1.3

vee

part of the crossing forming the shape of a letter 'V' which forms support to the wheels

3.1.1.4

throat opening

opening at the narrowest point between the wings

3.1.1.5

throat flare

wing entry flare (front)

machining or setting of wings to give an entry flare into the throat

3.1.1.6

nose

point at which the vee commences at the level of the gauge reference plane

3.1.1.7

nose profile

profile of the nose given when a section has been taken through the crossing at the nose position

3.1.1.8

nose topping

relief machining to the top of the nose to assist in the transfer of the wheel load from the wings to the vee

3.1.1.9

wing opening

opening between the running edges at the running edge height at the wing front end

13.1.1.10

vee opening

opening between the running edges at running edge height at the furthest point of the vee from the nose

3.1.1.11

fishing recess

recess in the rail or casting profile to permit the use of fishplates to form a joint

3.1.1.12

left hand wing

wing to the left hand side of the crossing nose when facing the nose from the wing front

3.1.1.13

right hand wing

wing to the right hand side of the crossing nose when facing the nose from the wing front

3.1.1.14

point rail

rail in a built-up crossing which when machined forms the crossing nose

3.1.1.15

splice rail

rail in a built-up crossing which is spliced into the point rail, forming the crossing vee. The crossing is described as "left hand splice" or "right hand splice" depending on the splice position when the observer is facing the nose from the wing front.

3.1.1.16

wing entry flare (heel)

angle entry at the end of the flangeway gap formed to give a smooth entry of the wheel into the flangeway gap

3.1.1.17

running edge

intersection of the gauge reference plane with the inside of the rail head

3.1.1.18

crossing angle

see EN 13232-1:2003, 7.4.1

3.1.1.19

bonding (if required)

provision for the use of an electrical connection to the crossing for track circuitry

3.1.1.20

flangeway width

width of the groove formed between the wing and the vee at running edge height

3.1.1.21

flangeway depth

depth of the groove formed between the wing and the vee at the running edge height

3.1.1.22

vee block

block between the vee rails or the point and splice rails in a built-up crossing towards the heel end of the crossing

3.1.1.23

throat block

neck block

block between the wing rails at the throat position

3.1.1.24

wing front block

block between the two wing rails in front of the throat

3.1.1.25

flangeway block

block between the wing rails and vee forming the flangeway

3.1.1.26

block bolts or fasteners

mechanical device used to clamp blocks in position