

SVENSK STANDARD

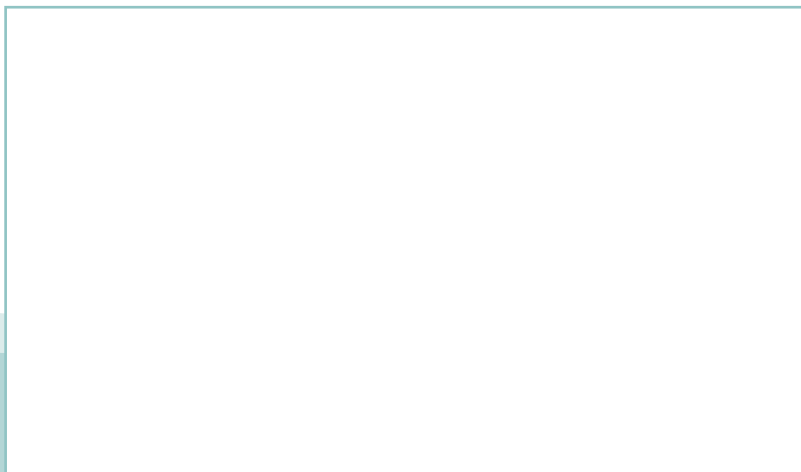
SS-EN 16273:2014

Fastställt/Approved: 2014-12-21
Publicerad/Published: 2015-01-15
Utgåva/Edition: 1
Språk/Language: engelska/English
ICS: 93.100



Järnvägar – Spår – Smidda rälövergångar

Railway applications – Track – Forged rail transitions



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Denna standard är framtagen av kommittén för Järnvägar, SIS/TK 254.

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EUROPEAN STANDARD

EN 16273

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2014

ICS 93.100

English Version

Railway applications - Track - Forged rail transitions

Applications ferroviaires - Voie - Rails forgés

Bahnanwendungen - Oberbau - Geschmiedete
Schienenübergänge

This European Standard was approved by CEN on 25 October 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 16273:2014) 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of an identical text or by endorsement, at the latest by June 2015 and conflicting national standards shall be withdrawn at the latest by June 2015.

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Introduction

This European Standard has three main topics:

- requirements of a forged part;
- procedure approval;
- forged rail production following approval.

This European Standard satisfies the needs of the railway authority and the manufacturer should achieve the specified requirements of this standard.

1 Scope

This European Standard specifies the requirements for the approval of a process wherein a rail of one profile has part of its length forged to a different profile, together with the requirements for subsequent forging production and product acceptance.

This European Standard applies to new railway rails according to EN 13674-1, and to switch and crossing rails used in conjunction with railway rails 46 kg/m and above according to EN 13674-2, to be welded or fish plated to make up switch rails or transition rails intended for use on railway infrastructures.

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 13232–5:2005+A1:2011, *Railway applications – Track – Switches and crossings – Part 5: Switches*

EN 13674-1:2011, *Railway applications – Track – Rail – Part 1: Vignole railway rails 46 kg/m and above*

EN 13674-2, *Railway applications – Track – Rail – Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above*

EN ISO 3452-1, *Non-destructive testing – Penetrant testing – Part 1: General principles (ISO 3452-1)*

EN ISO 9934 (all parts), *Non-destructive testing – Magnetic particle testing (ISO 9934)*

3 Terms and definitions

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

3.1

manufacturer

company that produces forged switch and transition rails

3.2

purchaser

buyer of the forged switch or transition rails

3.3

railway infrastructure

permanent way of national or private railways

3.4

specimen

portion detached from a forged rail transition and prepared as required for testing

3.5

profile finishing

operation by which the rail or relevant part of the component is returned to required profile

Note 1 to entry: This operation can be by grinding, milling, planing or any other suitable means.

3.6
finished condition
 finished component

3.7
railway authority (RA)
 either the railway regulator or the owner of the railway infrastructure or the custodian with a delegated responsibility for a railway infrastructure

3.8
forged switch rail – flexible switch rail
 the switch rail in the movable area of the switch is made of one profile only. This can be either a standard rail profile or a special profile

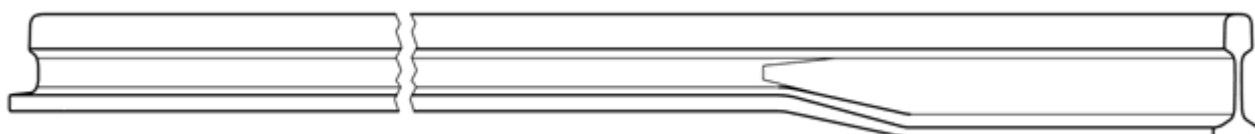


Figure 1 — Forged switch rail – flexible switch rail

3.9
forged switch rail – spring rail switch – rail
 the switch rail in the movable area of the switch is made of two different profiles. The transition and the weld between one to the other profile takes place in the movable part of the switch rail and can be either a standard rail profile or a special profile




key

 Flash butt weld

Figure 2 — Forged switch rail – spring rail switch – rail

3.10
forged switch rail – forged part
 the forged part is the end section of a switch rail with the transition. It is made of one profile only

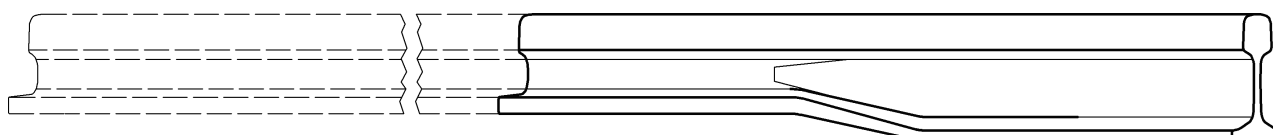


Figure 3 — Forged switch rail – forged part