

DIN EN 16273

DIN

ICS 93.100

**Railway applications –
Track –
Forged rail transitions;
English version EN 16273:2014,
English translation of DIN EN 16273:2015-03**

Bahnanwendungen –
Oberbau –
Geschmiedete Schienenübergänge;
Englische Fassung EN 16273:2014,
Englische Übersetzung von DIN EN 16273:2015-03

Applications ferroviaires –
Voie –
Rails forgés;
Version anglaise EN 16273:2014,
Traduction anglaise de DIN EN 16273:2015-03

Document comprises 40 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.



A comma is used as the decimal marker.

National foreword

This document (EN 16273:2014) has been prepared by Technical Committee CEN/TC 256 “Railway applications” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was the *DIN-Normenausschuss Fahrweg und Schienenfahrzeuge* (DIN Standards Committee Railway), Working Committee NA 087-00-01-01 UA *Schienenschweißen*.

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.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

Contents

	Page
Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Information to be supplied for approval.....	8
4.1 By the purchaser.....	8
4.2 By the manufacturer.....	8
5 Approval of the manufacturer	8
6 Requirements for the forging process	9
6.1 General.....	9
6.2 Forging parameters	9
6.3 Post heat treatment	9
6.4 Profile finishing.....	9
6.5 Cutting to length	9
6.6 Identification.....	9
7 Procedure approval	9
7.1 General.....	9
7.2 Test specimen preparation	10
7.3 Number of specimens	10
7.4 Non-destructive approval tests	10
7.4.1 Geometry and dimensions.....	10
7.4.2 Visual inspection	13
7.4.3 Surface finish	13
7.4.4 Dye penetrant (DPI) or magnetic particle inspection (MPI)	13
7.4.5 Ultrasonic testing (UT)	13
7.5 Destructive approval tests	14
7.5.1 Hardness distribution.....	14
7.5.2 Switch rails: hardness distribution in the rail head	16
7.6 Test report	18
7.7 Validity of approval.....	18
8 Production tests.....	18
8.1 Switches	18
8.1.1 General.....	18
8.1.2 Geometry and dimensions.....	19
8.1.3 Hardness testing.....	19
8.2 Transition rails	20
8.2.1 General.....	20
8.2.2 Hardness.....	20
Annex A (informative) Ultrasonic testing	22
A.1 Reference line (DAC) generation – reference block.....	22
A.2 Reference line (DAC) generation and acceptance criteria	23
Annex B (informative) Documentation of approval tests	24