February 2020

DIN EN 13674-4

ICS 93.100

Supersedes
DIN EN 13674-4:2019-06

Railway applications – Track – Rail – Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m; English version EN 13674-4:2019, English translation of DIN EN 13674-4:2020-02

Bahnanwendungen –
Oberbau –
Schienen – Teil 4: Vignolschienen mit einer längenbezogenen Masse zwischen 27 kg/m und unter 46 kg/m;
Englische Fassung EN 13674-4:2019,
Englische Übersetzung von DIN EN 13674-4:2020-02

Applications ferroviaires –
Voie –
Rails – Partie 4: Rails Vignole de masse comprise entre 27 kg/m et 46 kg/m, 46 kg/m non compris;
Version anglaise EN 13674-4:2019,
Traduction anglaise de DIN EN 13674-4:2020-02

Document comprises 71 pages

Translation by DIN-Sprachendienst.

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

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A comma is used as the decimal marker.

National foreword

This document (EN 13674-4:2019) has been prepared by Technical Committee CEN/TC 256 “Railway” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN-Normenausschuss Eisen und Stahl* (DIN Standards Committee Iron and Steel), Working Committee NA 021-00-12 AA “Railway track products”.

Amendments

This standard differs from DIN EN 13674-4:2010-04 as follows:

a) normative references have been updated;

b) two new steel grades R350LHT and R370CrHT and the corresponding data have been included in this standard;

c) a new Note 1 has been included in subclause 7.4.2 “Hot stamping” for the determination of the position in the bloom; the distance between numerical/alphabetical codes shall be equal to or smaller than 10 m;

d) the requirements for qualification examinations in Clause 8 have been revised;

e) information on the determination of the hydrogen content in subclause 9.1.2 has been revised; the separation into group 1 and group 2 has been removed from the standard;

f) subclause 9.1.6 “Tensile tests” has been completely revised; new requirements for predictive equations have been included;

g) the list of new and previous rail profiles has been revised: profile 45E3 has been included in this standard; geometrical data, moment of inertia, section modulus, indicative dimensions and drawings have been revised for rail profiles such as 36E1, 43A1, etc.;

h) the standard has been editorially revised.

Compared with DIN EN 13674-4:2019-06, the following corrections have been made:

a) in the European foreword, the German title of CEN/TC 256 has been corrected (applies to the German version only);

b) in the Introduction, the German translation has been adapted (applies to the German version only);

c) in Clause 5, Table 1, erroneous branding lines have been corrected (applies to the German version only);

d) in 7.4.2, Note 1 is now informative (applies to the German version only);

e) in 9.1.2.2, Table 2, Footnote a is now normative (applies to the German version only);

f) in 9.1.2.2, Table 3, the mass fraction of C for steel grade R370CrHT has been corrected (applies to the German version only);

g) in 9.1.5, Table 5, erroneous characteristics of steel grades have been corrected (applies to the German version only);

h) in 9.2.1, Table 6, Footnote a is now normative (applies to the German version only);

i) in 9.4.3, Figure 8 b), the erroneous assignment in the key description has been corrected (applies to the German version only);

j) in Annex A, Figure A.8, the erroneous key has been corrected (applies to the German version only);

k) the standard has been editorially revised.

Previous editions

DIN 1251-1: 1928-07, 1929-10
DIN 1251-2: 1928-07
DIN 1252-1: 1928-07
DIN 1252-2: 1928-07
DIN 1253-1: 1928-07
DIN 1253-2: 1928-07
DIN 1254-1: 1928-07
DIN 1254-2: 1928-07
DIN 1255-1: 1928-07
DIN 1255-2: 1928-07
DIN 1256-1: 1928-07
DIN 1257-1: 1928-07
DIN 1258-1: 1934-01
DIN 5901-1: 1938-01, 1948-03, 1965-03
DIN 5902-1: 1942-12, 1948-03, 1965-06, 1968-07
DIN 5901: 1995-11
DIN EN 13674-4: 2006-08, 2010-04, 2019-06

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13674-4

April 2019

ICS 93.100

Supersedes EN 13674-4:2006+A1:2009

English Version

Railway applications - Track - Rail - Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m

Applications ferroviaires - Voie - Rails - Partie 4: Rails Vignole de masse comprise entre 27 kg/m et 46 kg/m, 46 kg/m non compris

Bahnanwendungen - Oberbau - Schienen - Teil 4: Vignolschienen mit einer längenbezogenen Masse zwischen 27 kg/m und unter 46 kg/m

This European Standard was approved by CEN on 14 December 2018.

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

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 13674-4:2019 E

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European foreword

This document (EN 13674-4:2019) 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 October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13674-4:2006+A1:2009.

This part of EN 13674 is the fourth one of the series EN 13674, *Railway applications — Track — Rail*, which consists of the following parts:

— *Part 1: Vignole railway rails 46 kg/m and above*;

— *Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above*;

— *Part 3: Check rails*;

— *Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m*.

Other published standards include the following:

— EN 14587-1, *Railway applications – Infrastructure – Flash butt welding of new rails – Part 1: R220, R260, R260Mn, R320Cr, R350HT, R350LHT, R370CrHT and R400HT grade rails in a fixed plant*;

— EN 14587-2, *Railway applications – Track - Flash butt welding of rails – Part 2: New R220, R260, R260Mn and R350HT grade rails by mobile welding machines at sites other than a fixed plant*;

— EN 14587-3, *Railway applications – Track - Flash butt welding of rails – Part 3: Welding in association with crossing construction*;

— EN 14730-1, *Railway applications – Track - Aluminothermic welding of rails – Part 1: Approval of welding processes*;

— EN 14730-2, *Railway applications – Track - Aluminothermic welding of rails – Part 2: Qualification of aluminothermic welders, approval of contractors and acceptance of welds*;

— EN 14811, *Railway applications – Track - Special purpose rail - Grooved rails and associated construction profiles*;

— EN 15594, *Railway applications – Track - Restoration of rails by electric arc welding*;

— EN 16273, *Railway applications – Track - Forged rail transitions*.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta,