

SLOVENSKI STANDARD

SIST EN 12561-4:2004

01-junij-2004

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Railway applications - Tank wagons - Part 4: Top devices for top emptying and filling of liquid products

Bahnanwendungen - Kesselwagen - Teil 4: Oberliegende Einrichtungen für Obenentleerung und Obenbefüllung von flüssigen Stoffen

Applications ferroviaires - Wagons citernes - Partie 4: Dispositifs supérieurs de vidange et de remplissage par le haut pour produits liquides

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Ta slovenski standard je istoveten z: EN 12561-4:2002

ICS:

13.300	Varstvo pred nevarnimi izdelki	Protection against dangerous goods
45.060.20	Železniški vagoni	Trailing stock

SIST EN 12561-4:2004

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12561-4

September 2002

ICS 13.300; 45.060.20

English version

Railway applications - Tank wagons - Part 4: Top devices for top emptying and filling of liquid products

Applications ferroviaires - Wagons citernes - Partie 4:
Dispositifs supérieurs de vidange et de remplissage par le
haut pour produits liquides

Bahnanwendungen - Kesselwagen - Teil 4: Obenliegende
Einrichtungen für Obenentleerung und Obenbefüllung von
flüssigen Stoffen

This European Standard was approved by CEN on 3 January 2002.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 12591-4:2002) has been prepared by Technical Committee CEN /TC 256, "Railway application", 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 March 2003, and conflicting national standards shall be withdrawn at the latest by March 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

- Council Directive 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail ¹⁾;
- Council Directive 96/48/EC of 23 July 1996 on the interoperability of the trans-european highspeed rail system²⁾;
- Council Directive 93/38/EEC of 14 June 1993 co-ordinating the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors ³⁾;
- Council Directive 91/440/EEC of 29 July 1991 on the development of the community railways ⁴⁾.

It is in compliance with the following regulations being in force on the date of approval of this European Standard:

- Regulations concerning the International carriage of Dangerous goods by rail (RID) ⁵⁾;
- Regulations governing the reciprocal use of wagons in international traffic (RIV) ⁶⁾.

This European Standard has been submitted for reference into the RID. Therefore in this context the standards listed in the normative references and covering basic requirements of the RID not addressed within the present standard are normative only when the standards themselves are referred to in the RID.

¹⁾ Official Journal of the European Community No L 235 of 96/09/17.

²⁾ Official Journal of the European Community No L 235 of 96/09/17.

³⁾ Official Journal of the European Community No L 199 of 93/08/09.

⁴⁾ Official Journal of the European Community No L 237 of 91/08/24.

⁵⁾ Can be purchased from : OTIF, Gryphenhübeliweg, CH-3006 BERN

⁶⁾ Can be purchased from : UIC, Bureau RIV-RIC, 16 rue Jean Rey, F-75015 PARIS

EN 12561-4:2002 (E)

This series of European Standards "Railway applications — Tank wagons" consists of the following parts :

- Part 1: Marking of tank wagons for the carriage of dangerous goods
- Part 2: Bottom emptying devices for liquid products including vapour return
- Part 3: Bottom filling and emptying devices for gases liquefied under pressure
- Part 4: Top devices for top emptying and filling of liquid products
- Part 5: Top devices for bottom emptying and top filling of liquid products
- Part 6: Manholes
- Part 7: Platforms and ladders
- Part 8: Heating connections

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

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Introduction

Tank wagons for the transport of liquid substances are equipped with top devices standardised within CEN/TC 256 WG 20.

Devices fitted to tank wagons that can be emptied through the top, and which incorporate a dip pipe, are covered by this European Standard.

Devices fitted on the top of tank wagons that can only be bottom emptied are covered by EN 12561-5.

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EN 12561-4:2002 (E)**1 Scope**

This European Standard is applicable to top devices of tank wagons used for liquid substances of RID carried in the liquid state and able to be top filled and emptied.

This European Standard specifies the type of equipment which is fitted on the top of such tank wagons and the important dimensions for their connections.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12561-2, *Railway applications — Tank wagons — Part 2: Bottom emptying devices for liquid products including vapour return*

EN 12561-6, *Railway applications — Tank wagons - Part 6: Manholes*

EN 12972, *Tanks for transport of dangerous goods — Testing, inspection and marking of metallic tanks*

EN 20286-1, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits (ISO 286-1:1988)*

ISO 7005-1:1992, *Metallic flanges — Part 1: Steel flanges*

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3 Terms and definitions

For the purposes of this European Standard, the following term and definition apply:

3.1

auto vent valve

see EN 12561-2

4 Requirements**4.1 General**

In order to allow the filling and emptying of tank wagons through the top, the tank wagon shall be fitted with devices for loading and emptying and with a manhole.

Where bottom emptying devices, return vapour device and associated auto vent valves are also fitted they shall be in compliance with EN 12561-2.

All openings shall be equipped with devices to which a seal can be properly attached.

NOTE For customs seals a hole of diameter 15 mm is required.

All nozzles including manhole shall be positioned according to clause 5.

4.2 Dimensions

All dimensions are given in millimetres. Unless otherwise indicated in this European Standard tolerances of EN 20286-1 apply.

4.3 Filling and emptying devices

These devices shall allow the filling of tank wagons through the filling inlet or the dip pipe and the emptying through the dip pipe. They shall consist of the following minimum equipment :

- a dip pipe DN 80 on nozzle DN 150,
- an air/vapour connection DN 50,
- a filling or spare nozzle, DN 300.

Flanges shall have their connection dimensions in accordance with ISO 7005-1:1992 PN 10 series, face A or B. Blind flanges shall be fitted with a handle mounted horizontally or vertically according to Figure 1 below.

Dimensions in millimetres

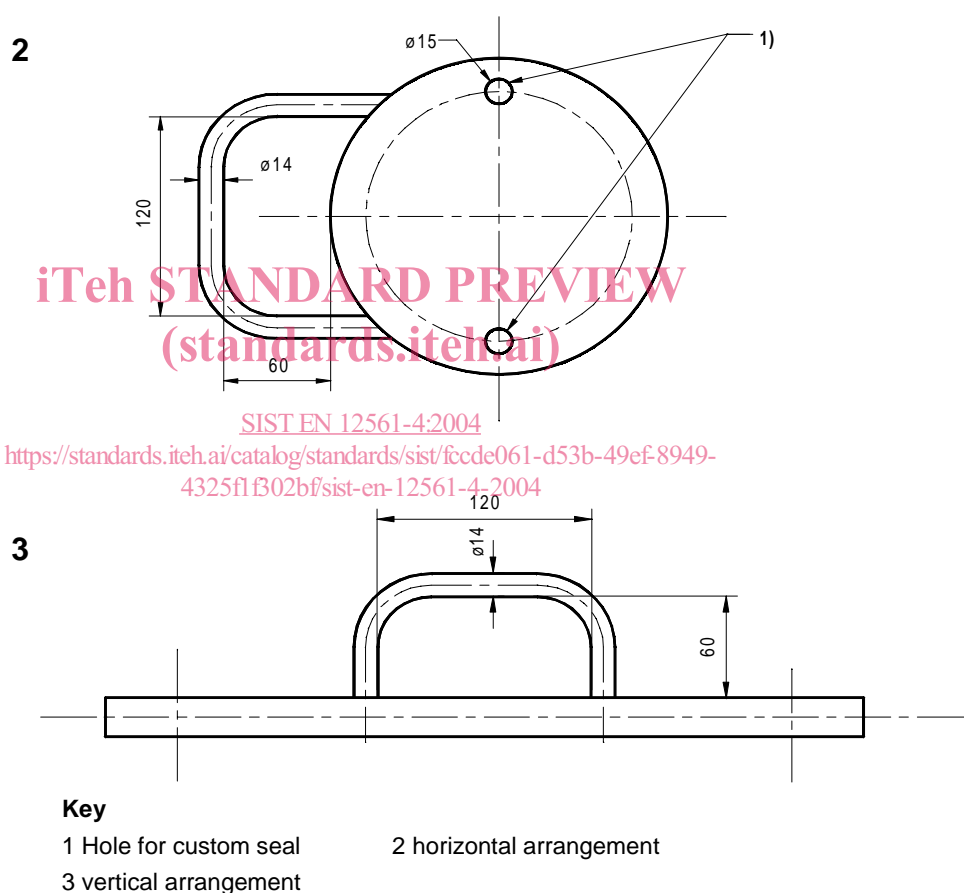


Figure 1 — Examples of handle on blind flange

Where blind flanges which are not preceded by a valve are fitted on filling or emptying devices, the blind flanges shall be equipped with splash rings according to Figure 2 and Table 1.

Dimensions in millimetres

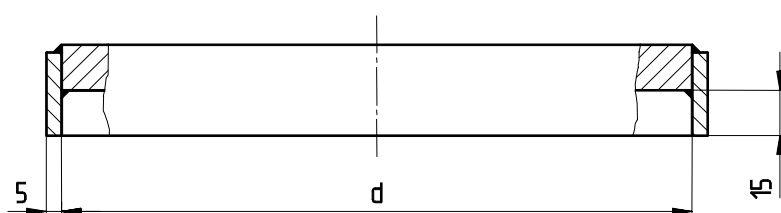


Figure 2 — Splash ring