



# SLOVENSKI STANDARD

## SIST EN 12561-4:2011

01-oktober-2011

Nadomešča:  
SIST EN 12561-4:2004

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**Železniške naprave - Vagoni-cisterne - 4. del: Naprave, ki so nameščene na vrhu cisterne in so namenjene za polnjenje in praznjenje tekočin**

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

Bahnanwendungen - Kesselwagen - Teil 4: 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

**Ta slovenski standard je istoveten z: EN 12561-4:2011**

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**ICS:**

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

**SIST EN 12561-4:2011** en,fr,de

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 12561-4**

June 2011

ICS 13.300; 45.060.20

Supersedes EN 12561-4:2002

English Version

## Railway applications - Tank wagons - Part 4: Devices for top filling and emptying 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: Einrichtungen  
für Obenentleerung und Obenbefüllung von flüssigen  
Stoffen

This European Standard was approved by CEN on 3 June 2011.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Foreword

This document (EN 12561-4:2011) 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 December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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 document supersedes EN 12561-4:2002.

This European Standard *Railway applications — Tank wagons* consists of the following parts:

- *Part 1: Identification plates for 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: Devices for top filling and emptying of liquid products;*
- *Part 5: Devices for vapour return while filling or emptying of liquid products;*
- *Part 6: Manholes;*
- *Part 7: Platforms and ladders;*
- *Part 8: Heating connections.*

The changes made during this revision are editorial because of the change of the title of part 1 and the necessary updates of references.

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 the United Kingdom.

**EN 12561-4:2011 (E)****Introduction**

Tank wagons for the transport of liquid substances are equipped with top devices standardised within CEN Technical Committee 256 Railway Applications.

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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## 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. Safety functions of these devices are subject to RID requirements and not described in this document.

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.

This European Standard applies to new tank wagons built after the 1st January 2010.

## 2 Normative references

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

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 ISO 286-1, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits (ISO 286-1:2010)*

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

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## 3 Terms and definitions

Not applicable.

## 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.

For customs seals, a hole of diameter 15 mm shall be 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 ISO 286-1 apply.

**EN 12561-4:2011 (E)****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 to DN 80;
- a filling or spare nozzle, DN 150 to DN 300.

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

NOTE Other dimension for the nozzles are permissible by special agreement between supplier and customer.

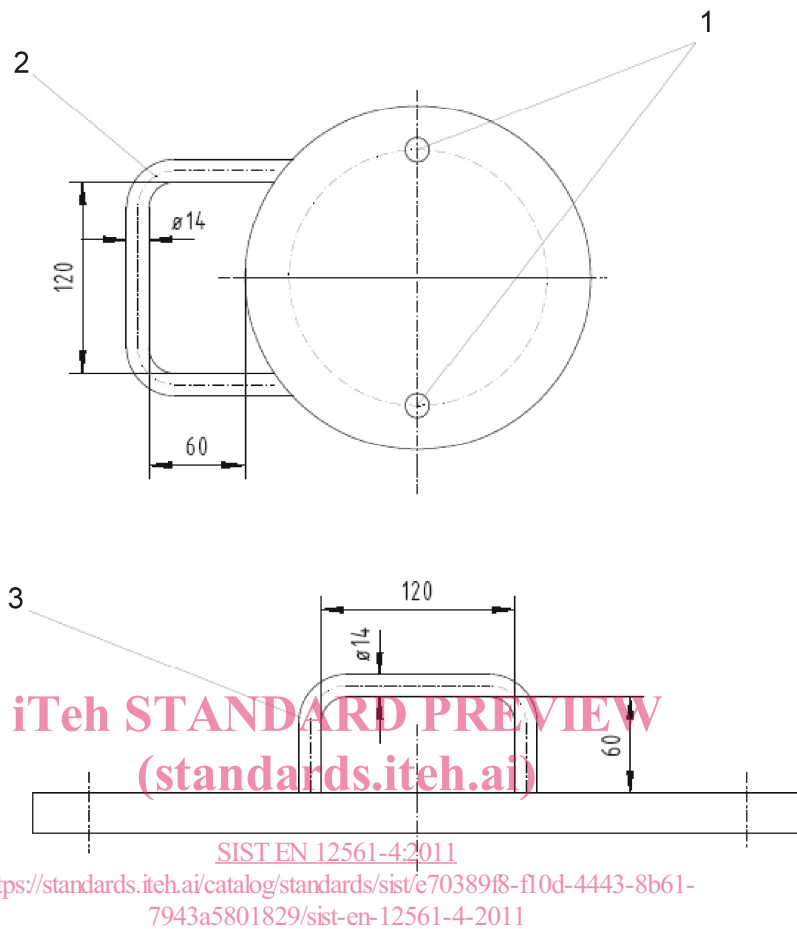
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Dimensions in millimetres

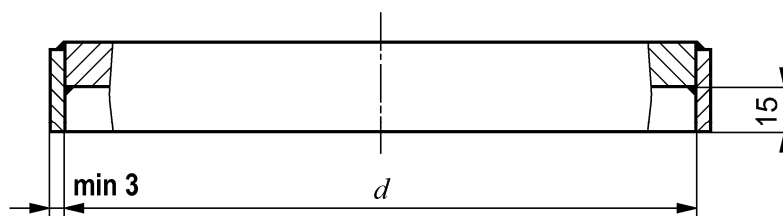
**Key**

- 1 hole for custom seal
- 2 horizontal arrangement
- 3 vertical arrangement

**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**