



**NSAI**  
Standards

Irish Standard  
I.S. EN 12561-6:2011

# Railway applications - Tank wagons - Part 6: Manholes

## I.S. EN 12561-6:2011

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces:*  
EN 12561-6:2002

*This document is based on:* EN 12561-6:2011  
*Published:* 5 July, 2011

This document was published under the authority of the NSAI and comes into effect on: 5 July, 2011

ICS number:  
45.060.20  
13.300

**NSAI**  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

**Sales:**  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

## Railway applications - Tank wagons - Part 6: Manholes

Applications ferroviaires - Wagons citernes - Partie 6:  
Trous d'homme

Bahnanwendungen - Kesselwagen - Teil 6: Mannloch

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.



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	3
<b>1 Scope .....</b>	<b>4</b>
<b>2 Normative references .....</b>	<b>4</b>
<b>3 Terms and definitions .....</b>	<b>4</b>
<b>4 Requirements .....</b>	<b>5</b>
4.1 Threaded fasteners.....	5
4.2 Dimensions.....	5
<b>5 End fitted manhole for gas tank wagons .....</b>	<b>5</b>
5.1 Position of manhole.....	5
5.2 Ring and plate .....	6
5.2.1 General.....	6
5.2.2 Dimensions.....	6
5.2.3 Surface parameters .....	7
5.2.4 Tolerances .....	7
5.3 Gaskets .....	7
<b>6 Top fitted manhole for gas tank wagons.....</b>	<b>8</b>
<b>7 Bolted manhole for liquid substances .....</b>	<b>11</b>
<b>8 Swing bolt manholes for liquid substances .....</b>	<b>11</b>
8.1 General.....	11
8.2 General arrangement.....	11
8.3 Swing bolts.....	12
8.4 Wing nuts.....	13
8.5 Swing bolt hinge pin.....	14
8.6 Gasket.....	14
<b>Bibliography .....</b>	<b>15</b>

## Figures

<b>Figure 1 — Positioning of manhole .....</b>	<b>6</b>
<b>Figure 2 — Dimensions of ring and plate.....</b>	<b>7</b>
<b>Figure 3 — Gasket dimensions .....</b>	<b>8</b>
<b>Figure 4 — Arrangement of valves on manlid .....</b>	<b>9</b>
<b>Figure 5 — Dimensions of internal valve flange.....</b>	<b>10</b>
<b>Figure 6 — Dimensions of recess in the manlid for internal valve flange .....</b>	<b>10</b>
<b>Figure 7 — Manlid handle - minimum dimensions.....</b>	<b>11</b>
<b>Figure 8 — Main dimensions for swing bolt manholes .....</b>	<b>12</b>
<b>Figure 9 — Swing bolt .....</b>	<b>13</b>
<b>Figure 10 — Wing nut.....</b>	<b>13</b>
<b>Figure 11 — Gasket dimensions .....</b>	<b>14</b>

## Foreword

This document (EN 12561-6:2011) 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 12561-6:2002.

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.

## 1 Scope

This European Standard applies to manholes on tank wagons used for the transport of dangerous substances. Safety functions of these devices are subject to RID requirements and not described in this document.

This European Standard specifies the dimensions for the interchangeability of seals and other wearing parts and defines also the important dimensions for:

- manholes for gas tank wagons located in one end of the tank;
- manholes for gas tank wagons located on the top of the tank including the arrangement of fittings;
- bolted manholes for tank wagons for liquid substances located on the top of the tank;
- swing bolt manholes for tank wagons for liquid substances located on the top of the tank.

Quick closing/opening manholes are permitted but are not covered by this European Standard.

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 14025, *Tanks for the transport of dangerous goods — Metallic pressure tanks — Design and Construction*

EN 14564, *Tanks for transport of dangerous goods – Terminology*

EN 20898-2, *Mechanical properties of fasteners — Part 2: Nuts with specified proof load values — Coarse thread (ISO 898-2:1992)*

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)*

EN ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread (ISO 898-1:2009)*

EN ISO 4287, *Geometrical product specification (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287:1997)*

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

ISO 9669, *Series 1 freight containers; Interface connections for tank containers*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14564 and the following apply.

### 3.1 manhole

opening in the tank which includes the sealing, the manlid and fastenings

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-