



# SLOVENSKI STANDARD

## SIST EN 13317:2018

01-november-2018

Nadomešča:

SIST EN 13317:2003+A1:2007

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### Cisterne za prevoz nevarnega blaga - Oprema za obratovanje cistern - Sklop pokrova vstopne odprtine

Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Baugruppe Deckel für Einsteigeöffnungen

Citernes pour le transport de matières dangereuses - Équipements de service pour citernes - Couvercle de trou d'homme

Ta slovenski standard je istoveten z: **EN 13317:2018**

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#### **ICS:**

13.300	Varstvo pred nevarnimi izdelki	Protection against dangerous goods
23.020.20	Posode in vsebniki, montirani na vozila	Vessels and containers mounted on vehicles

**SIST EN 13317:2018**

**en,fr,de**

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EUROPEAN STANDARD

EN 13317

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2018

ICS 13.300; 23.020.20

Supersedes EN 13317:2002+A1:2006

English Version

## Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly

Citernes destinées au transport de matières dangereuses - Équipements de service pour citernes - Couvercle de trou d'homme

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Baugruppe Deckel für Einsteigeöffnungen

This European Standard was approved by CEN on 23 April 2018.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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## European foreword

This document (EN 13317:2018) has been prepared by Technical Committee CEN/TC 296, "Tanks for the transport of dangerous goods", the secretariat of which is held by AFNOR.

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 January 2019, and conflicting national standards shall be withdrawn at the latest by January 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 13317:2002+A1:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The following significant changes were made in this edition of EN 13317 in comparison with the earlier one:

- a statement to be included in the installation instructions regarding the requirements for attachment to the shell;
- the keeping period for test results clarified;
- drop test rig, (Annex A), dimensions of sand boxes improved;
- Mounting dimensions, (Annex B), title change, contents amended and expanded into two annexes (Annex B and Annex C) for clarification.

This European Standard has been submitted for reference into the technical annexes of the ADR [1]. Therefore, in this context the standards listed in the normative references and covering basic requirements of the ADR not addressed within the present standard are normative only when the standards themselves are referred to in the technical annexes of the ADR.

This European Standard forms part of a coherent standards programme comprising the following standards:

- EN 13081, *Tanks for transport of dangerous goods - Service equipment for tanks - Vapour collection adaptor and coupler*;
- EN 13082, *Tanks for transport of dangerous goods - Service equipment for tanks - Vapour transfer valve*;
- EN 13083, *Tanks for transport of dangerous goods - Service equipment for tanks - Adaptor for bottom loading and unloading*;
- EN 13308, *Tanks for transport of dangerous goods - Service equipment for tanks - Non pressure balanced footvalve*;
- EN 13314, *Tanks for transport of dangerous goods - Service equipment for tanks - Fill hole cover*;
- EN 13315, *Tanks for transport of dangerous goods - Service equipment for tanks - Gravity discharge coupler*;
- EN 13316, *Tanks for transport of dangerous goods - Service equipment for tanks - Pressure balanced footvalve*;

**EN 13317:2018 (E)**

- EN 13317, *Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly;*
- EN 14595, *Tanks for transport of dangerous goods - Service equipment - Breather device;*
- EN 14596, *Tanks for transport of dangerous goods - Service equipment for tanks - Emergency pressure relief valve;*
- EN 16249, *Tanks for the transport of dangerous goods - Service equipment - Cap for the adaptor for bottom loading and unloading;*
- EN 16257, *Tanks for the transport of dangerous goods - Service equipment - Footvalve sizes other than 100 mm dia (nom);*
- EN 16522, *Tanks for transport of dangerous goods - Service equipment for tanks - Flame arresters for breather devices.*

Annexes A, B and C are normative. This document includes a Bibliography.

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, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## Introduction

The manhole cover assembly, the subject of this standard, seals the manhole which gives access to the inside of the tank compartment for manufacturing, cleaning, and inspection, and forms an integral part of a loading, unloading or venting function.

NOTE Cover plates used to seal manholes are not the subject of this standard.

The manhole cover assembly, which comprises the manhole cover and gaskets and may include devices to secure it to the tank shell neckring, may also provide the mounting points for equipment such as:

- fill hole cover;
- pressure limiting device(s);
- level detection equipment;
- vapour transfer valve;
- breather device.

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**EN 13317:2018 (E)****1 Scope**

This document covers the manhole cover assembly and specifies the performance requirements, dimensions and tests necessary to verify the compliance of the equipment to this standard.

The equipment specified by this standard is suitable for use with liquid petroleum products and other dangerous substances of Class 3 of ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road which have a vapour pressure not exceeding 110 kPa at 50 °C and petrol, and which have no sub-classification as toxic or corrosive.

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12266-1:2012, *Industrial valves - Testing of metallic valves – Part 1: Pressure tests, test procedures and acceptance criteria - Mandatory requirements*

EN 12266-2, *Industrial valves - Testing of metallic valves - Part 2: Tests, test procedures and acceptance criteria - Supplementary requirements*

EN 13094:2015, *Tanks for the transport of dangerous goods - Metallic tanks with a working pressure not exceeding 0,5 bar - Design and construction*

ISO 2859-1, *Sampling procedures for inspection by attributes – Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

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**3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

**3.1 manhole**

opening in a tank to allow internal inspection by a person passing through

**3.2 manhole cover**

cover of the manhole which forms an integral part of a loading, unloading or venting function

Note 1 to entry: Loading, unloading or venting function may include auxiliary equipment such as vapour transfer valve, emergency pressure relief valve and sensors.

**3.3 manhole cover neckring**

shell ring permanently joined to the tank that provides the attachment point for the manhole cover



**3.4****fill hole cover**

operating device on top of a transportable tank to allow the opening and closing of the fill hole

**3.5****manhole cover gasket**

device which ensures the seal between manhole cover neckring and the manhole cover

**3.6****maximum allowable working pressure (MAWP)**

maximum pressure to which the equipment is designed to operate

**3.7****cover plate**

plate which does not form an integral part of a loading, unloading or venting function and is used to provide a leak-tight cover for a manhole

**4 Functions**

The manhole cover assembly seals the manhole that gives access to the inside of the tank or compartment.

The manhole cover assembly may provide aperture(s) to allow the installation of other equipment.

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**5 Design characteristics**

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**5.1 Leak tightness**

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**5.1.1 Pressure tightness**

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When closed, the manhole cover assembly shall be designed to be vapour and liquid tight in any orientation, at any positive or negative pressure within the maximum pressure range of the tank compartment to which it shall be fitted.

**5.1.2 Drop test**

Each type of manhole cover assembly shall be structurally capable of withstanding, without leakage or permanent deformation that would affect its structural integrity, a drop test as described in 6.3.3.

**5.2 Temperature range**

Unless otherwise specified, the design temperature range shall be – 20 °C to 50 °C.

Where the manhole cover assembly is subjected to more severe conditions, the design temperature range shall be extended to –40 °C or +70 °C as applicable.

**5.3 Materials of construction**

Metallic materials shall meet the requirements of EN 13094:2015, 5.2.

The manufacturer shall provide with the equipment a full material specification for those parts that may come into contact with the dangerous substances specified in the scope.

**5.4 Dimensional characteristics**

The nominal diameter of the manhole shall be 500 mm.

The critical dimensions for the mounting face attachment are specified in Annex B.