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Tanks for the transport of dangerous goods - Metallic pressure tanks - Design and construction

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/14

Obsahuje: EN 14025:2013

Oznámením tejto normy sa ruší
STN EN 14025 (69 8508) zo septembra 2008

English Version

Tanks for the transport of dangerous goods - Metallic pressure tanks - Design and construction

Citernes destinées au transport de matières dangereuses -
Citernes métalliques sous pression - Conception et
fabrication

Tanks für die Beförderung gefährlicher Güter - Metallische
Drucktanks - Auslegung und Bau

This European Standard was approved by CEN on 31 August 2013.

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

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Foreword

This document (EN 14025:2013) 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of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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 14025:2008.

Compared to EN 14025:2008, the following changes have been made:

- a) the scope of the standard has been enlarged to cover portable tanks according to RID/ADR, Chapter 6.7;
- b) the standard has been adapted to the requirements of RID/ADR 2013;
- c) Annex A has been deleted and the references to RID/ADR have been included into the respective clauses of the standard;
- d) Subclause 6.3.5, Openings and reinforcements has been corrected;
- e) the normative references have been updated.

This document is submitted for reference into the RID [9] and/or in the technical annexes of the ADR [10].

NOTE The technical annexes are available at the following website: <http://www.unece.org/trans/danger/danger.htm> for ADR and for RID at <http://www.otif.org/en/dangerous-goods.htm> respectively.

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

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

1 Scope

This European Standard specifies the minimum requirements for the design and construction of metallic pressure tanks having a maximum working or test pressure exceeding 50 kPa (0,5 bar), for the transport of dangerous goods by road and rail and sea. This European Standard includes requirements for openings, closures and structural equipment; it does not cover requirements of service equipment. For tanks for the transport of cryogenic liquids, EN 13530-1 and EN 13530-2 apply.

NOTE 1 Design and construction of pressure tanks according to the scope of this European Standard are primarily subject to the requirements of RID/ADR, 6.8.2.1, 6.8.3.1 and 6.8.5, as relevant. In addition, the relevant requirements of RID/ADR, columns 12 and 13 of Table A to chapter 3.2, 4.3 and 6.8.2.4 apply. For the structural equipment subsections 6.8.2.2 and 6.8.3.2 apply, as relevant. The definitions of RID/ADR 1.2.1 are referred to. For portable tanks see also Chapter 4.2 and Sections 6.7.2 and 6.7.3 of RID and ADR. In addition, the relevant requirements of RID/ADR, columns 10 and 11 of Table A to Chapter 3.2, 4.2, 6.7.2 and 6.7.3 apply. The paragraph numbers above relate to the 2013 issue of RID/ADR which are subject to regular revisions. This can lead to temporary non-compliances with EN 14025. It is important to know that requirements of RID/ADR take precedence over any clause of this standard.

NOTE 2 This standard is applicable to liquefied gases including LPG, however for a dedicated LPG standard see EN 12493.

If not otherwise specified, provisions which take up the whole width of the page apply to all kind of tanks. Provisions contained in a single column apply only to:

road and rail pressure tanks according to RID/ADR chapter 6.8 (left-hand column);	portable tanks according to RID/ADR chapter 6.7 (right-hand column).
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2 Normative references

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

EN 287-1, *Qualification test of welders — Fusion welding — Part 1: Steels*

EN 1418, *Welding personnel — Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials*

EN 1435, *Non-destructive examination of welds — Radiographic examination of welded joints*

EN 1591-1, *Flanges and their joints — Design rules for gasketed circular flange connections — Part 1: Calculation method*

EN 10204, *Metallic products — Types of inspection documents*

EN 13094:2008, *Tanks for the transport of dangerous goods — Metallic tanks with a working pressure not exceeding 0,5 bar — Design and construction*

EN 13445-2, *Unfired pressure vessels — Part 2: Materials*

EN 13445-3:2009, *Unfired pressure vessels — Part 3: Design*

EN 13445-4, *Unfired pressure vessels — Part 4: Fabrication*

EN 13445-8, *Unfired pressure vessels — Part 8: Additional requirements for pressure vessels of aluminium and aluminium alloys*

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EN ISO 3834-1, *Quality requirements for fusion welding of metallic materials — Part 1: Criteria for the selection of the appropriate level of quality requirements (ISO 3834-1)*

EN ISO 3834-2, *Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements (ISO 3834-2)*

EN ISO 4136, *Destructive tests on welds in metallic materials — Transverse tensile test (ISO 4136)*

EN ISO 5173, *Destructive tests on welds in metallic materials — Bend tests (ISO 5173)*

EN ISO 5817, *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections (ISO 5817)*

EN ISO 9606-2, *Qualification test of welders — Fusion welding — Part 2: Aluminium and aluminium alloys (ISO 9606-2)*

EN ISO 9712, *Non destructive testing — Qualification and certification of NDT personnel (ISO 9712)*

EN ISO 10042, *Welding — Arc-welded joints in aluminium and its alloys — Quality levels for imperfections (ISO 10042)*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials — General rules (ISO 15607)*

EN ISO 15609-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding (ISO 15609-1)*

EN ISO 15609-3, *Specification and qualification of welding procedures for metallic materials — Welding procedures specification — Part 3: Electron beam welding (ISO 15609-3)*

EN ISO 15609-4, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 4: Laser beam welding (ISO 15609-4)*

EN ISO 15613, *Specification and qualification of welding procedures for metallic materials — Qualification based on pre-production welding test (ISO 15613)*

EN ISO 15614-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1)*

EN ISO 15614-2, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 2: Arc welding of aluminium and its alloys (ISO 15614-2)*

EN ISO 17635, *Non-destructive testing of welds — General rules for metallic materials (ISO 17635)*

EN ISO 17637, *Non-destructive testing of welds — Visual testing of fusion-welded joints (ISO 17637)*

EN ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment (ISO 17640)*

ISO 1496-3, *Series 1 freight containers — Specification and testing — Part 3: Tank containers for liquids, gases and pressurized dry bulk*

ISO 7005-1, *Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems*

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