ICS 13.300, 23.020.20 SLOVENSKÁ TECHNICKÁ NORMA Október 2015

| STN | **Cisterny na prepravu nebezpečných látok. Kovové cisterny s pracovným tlakom do 0,5 bar. Návrh a výroba.** | **STN EN 13094**<br><br>25 7863 |
|---|---|---|

Tanks for the transport of dangerous goods - Metallic tanks with a working pressure not exceeding 0,5 bar - 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. 09/15

Obsahuje: EN 13094:2015

Oznámením tejto normy sa ruší
STN EN 13094 (69 8520) z decembra 2008

**121601**

EUROPEAN STANDARD **EN 13094**

NORME EUROPÉENNE

EUROPÄISCHE NORM May 2015

ICS 13.300; 23.020.20 Supersedes EN 13094:2008

English Version

# Tanks for the transport of dangerous goods - Metallic tanks with a working pressure not exceeding 0,5 bar - Design and construction

Citernes destinées au transport de matières dangereuses - Citernes métalliques ayant une pression de service inférieure ou égale à 0,5 bar - Conception et construction

Tanks für die Beförderung gefährlicher Güter - Metalltanks mit einem Betriebsdruck von höchstens 0,5 bar - Auslegung und Bau

This European Standard was approved by CEN on 17 January 2015.

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

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

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



Ref. No. EN 13094:2015 E

# Contents

Page

# Foreword

This document (EN 13094:2015) has been prepared by Technical Committee CEN/TC 296 “Tanks for 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 November 2015 and conflicting national standards shall be withdrawn at the latest by November 2015.

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 13094:2008.

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

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR.

Compared with EN 13094:2008, the following changes are the principal modifications which have been made:

a) a new form of protection was added to 6.9.2.2;

b) subclause 6.10 was revised;

c) for the protection of service equipment mounted on top of the tank, the addition of an alternative steel and, where longitudinal and transverse members are used, additional requirements for drainage were added;

d) references were updated, in particular related to welding and NDT standards;

e) literal mistakes were corrected.

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 requirements for the design and construction of metallic tanks with a maximum working pressure not exceeding 50 kPa gauge used for the transport of dangerous goods by road and rail for which Tank Code with letter “G” is given in Chapter 3.2 of ADR [2]. It also includes requirements for a system of identification of materials used in the construction of these tanks.

This European Standard specifies requirements for openings, closures and structural equipment.

NOTE 1 This document does not specify requirements for service equipment.

This European Standard is applicable to aircraft refuellers that are used on public roads. It is also applicable to inter-modal tanks (e.g. tank containers and tank swap bodies) for the transport of dangerous goods by road and rail.

NOTE 2 This document is not applicable to fixed rail tank wagons.

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

EN 12972:2007, *Tanks for transport of dangerous goods — Testing, inspection and marking of metallic tanks*

EN 13317, *Tanks for transport of dangerous goods — Service equipment for tanks — Manhole cover assembly*

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

EN 14595, *Tanks for transport of dangerous goods — Service equipment for tanks — Pressure and Vacuum Breather Vent*

EN ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method (ISO 148-1)*

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

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system (ISO 7500-1)*

EN ISO 9606-1, *Qualification testing of welders — Fusion welding — Part 1: Steels (ISO 9606-1)*

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 14732, *Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials (ISO 14732)*

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 15609-2, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 2: Gas welding (ISO 15609-2)*

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

EN ISO 15614 (all parts), *Specification and qualification of welding procedures for metallic materials — Welding procedure test (ISO 15614, all parts)*

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

EN ISO 17636-1, *Non-destructive testing of welds —- Radiographic testing — Part 1: X- and gamma-ray techniques with film (ISO 17636-1)*

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*