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CSA B625:20
National Standard of Canada

Portable tanks for the transport of dangerous goods

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Portable tanks for the transport of dangerous goods

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Contents

Preface

This is the third edition of CSA B625, *Portable tanks for the transport of dangerous goods*. It supersedes the previous editions, published in 2013 and 2008.

This Standard is one of a series of Standards prepared for use in conjunction with the *Transportation of Dangerous Goods Regulations*, which adopt this Standard by reference. Because the Regulations may adopt this Standard with certain exceptions or additional requirements, they should always be consulted in conjunction with this Standard.

The Technical Committee on Portable Tanks for the Transportation of Dangerous Goods is made up of members having responsibility for and expertise in the areas of portable tank design, design review, manufacture, inspection, test, use, and regulation. This Standard has been developed by consensus of the committee members.

This Standard is based on the United Nations' *Recommendations on the Transport of Dangerous Goods — Model Regulations*, 20th ed. rev. (2017) ("UN Recommendations"), and specifies the decision items that are left to the discretion of the "competent authority" by the UN Recommendations. The Standard contains

- the rules for the design and manufacture of UN portable tanks in Canada and their approval by Canada; and
- the provisions for the selection and use, inspection, test, and repair, in Canada, of UN portable tanks, as well as IM 101, IM 102, and IMO-type 1, 2, 5, and 7 portable tanks, regardless of where they were approved and manufactured.

This Standard requires that each UN portable tank design approved or manufactured in Canada be reviewed and approved by a design reviewer registered with Transport Canada. The design reviewer has the responsibility of issuing the design approval number and the design approval certificate of UN portable tank designs on behalf of the competent authority in Canada, Transport Canada.

In addition to other requirements, this Standard prescribes that the shell of certain types of UN portable tanks be designed, constructed, certified, and stamped (the "U" stamp) in accordance with the requirements of the ASME *Boiler and Pressure Vessel Code*, Section VIII, Division 1. This provision triggers certain requirements, including the requirements for certain inspections to be carried out by "authorized inspection agencies" that are accredited in accordance with applicable requirements of the ASME *Code*. For the purpose of carrying out "authorized inspection agency" functions, any authorized inspection agency holding a valid authorized inspection agency certificate of accreditation is acceptable.

This Standard also specifies conditions for the handling, offering for transport, or transport, in Canada, of UN portable tanks approved by a foreign jurisdiction and manufactured outside Canada. Such tanks may be used as specified, provided that they are designed and manufactured in accordance with the UN Recommendations and the applicable national regulations of the country of approval and the country of manufacture, and that the tanks' shells are designed and manufactured in accordance with the ASME *Code*, Section VIII, Division 1 or 2.

The major changes to this edition of the Standard are the following:

- alignment of technical requirements with the 20th edition of the UN *Recommendations*;
- revised quality manual requirements to allow for harmonized documentation requirements with CSA B620 for those facilities also registered under that safety standard for Highway and TC portable tanks;

- restructuring of registration requirements to simplify the number of registration types; and
- limiting the pressure vessel code acceptability of foreign-approved tanks to the ASME *Boiler and Pressure Vessel Code,* Section VIII, Division 1 or 2. Foreign-approved tanks built after 2018 to the ASME *Boiler and Pressure Vessel Code,* Section VIII, Division 1 and used for Class 2 or toxic inhalation hazard dangerous goods will need to be U-stamped.

It is the intent of the Technical Committee to maintain this Standard in a manner that provides the maximum degree of harmonization with the UN Recommendations while meeting the needs of Canada.

This Standard was prepared by the Technical Committee on Portable Tanks for the Transportation of Dangerous Goods, under the jurisdiction of the Strategic Steering Committee on Mechanical Industrial Equipment Safety, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at standardsactivities.csa.ca.*
5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change; and*
   d) *rationale for the change.*

CSA B625:20
Portable tanks for the transport of dangerous goods

1 Scope

1.1

This Standard applies to the design and manufacture of UN portable tanks and their approval by the Competent Authority of Canada. Such UN portable tanks have a capacity greater than 450 L and might or might not meet the definition of "container" within the terms of the International Maritime Organization's *International Convention for Safe Containers, 1972*.

In addition to the provisions of this Standard, unless otherwise specified, the applicable provisions of the *International Convention for Safe Containers, 1972* would apply to any portable tank which meets the definition of a "container" within the terms of that Convention.* Additional provisions might apply to offshore portable tanks that are handled in open seas.

The International Convention for Safe Containers does not apply to offshore tank containers that are handled in open seas. The design and testing of offshore tank containers takes into account the dynamic lifting and impact forces that might occur when a tank is handled in open seas in adverse weather and sea conditions. The provisions for such tanks are determined by the approving competent authority.

This Standard also applies to the selection, use, inspection, testing, and repair of UN portable tanks, as well as IMO-type portable tanks (IMO-type 1, 2, 5, or 7 tanks), and IM 101 and IM 102 portable tanks, for handling, offering for transport, or transport of dangerous goods in Canada, whether or not they meet the definition of "container" within the terms of the *International Convention for Safe Containers, 1972*.

* *In Canada, the* Safe Containers Convention Act *and the* Safe Containers Convention Regulations *have been adopted to give effect to the provisions of the Convention.*

1.2

The testing and evaluation of a product in accordance with this Standard can involve the use of processes, materials, and/or equipment that can be hazardous. This Standard does not address the occupational health and safety aspects associated with its use. Anyone using this Standard has the responsibility to consult the appropriate authorities and establish appropriate health and safety practices in conjunction with any applicable regulatory requirements.

1.3

The *Transportation of Dangerous Goods Act*, *1992*, and the *Transportation of Dangerous Goods Regulations* might set out requirements that are additional to or different from those in this Standard. Where there is an inconsistency between the requirements of this Standard and those of the Act or Regulations, the Act or Regulations takes precedence to the extent of the inconsistency.

1.4

This Standard sets out certain minimum requirements regarding the design, construction, testing, selection, and use of portable tanks. It is essential to exercise competent judgment in conjunction with this Standard. In some circumstances, it is necessary to exceed the minimum requirements of this Standard so that adequate public safety is achieved.

1.5

In this Standard, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This Standard refers to the following publications. For dated references, only the edition cited shall apply. For undated references, the latest edition of the referenced document (including any amendments) shall apply.

Note: *See also Annex F.*

CSA Group

CAN/CSA-C22.2 No. 60529-16
Degrees of protection provided by enclosures (IP Code)

B341
UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods

ASME (American Society of Mechanical Engineers)

Boiler and Pressure Vessel Code (2017)

Section V — Nondestructive Examination

Section VIII — Pressure Vessels — Division 1

Section VIII — Pressure Vessels — Division 2 — Alternative Rules

ASTM International

E112-10
Standard Test Methods for Determining Average Grain Size

