

# Installation code for propane fuel systems and tanks on highway vehicles



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# Contents

CSA B149 Installation Code Committee v

Interprovincial Gas Advisory Council (IGAC) ix

Preface xi

## 1 Scope 1

## 2 Reference publications 1

## 3 Definitions 3

## 4 General 5

- 4.1 Application 5
- 4.2 Approval of accessories, components, equipment, and material 6
- 4.3 Responsibilities of the installer 6
- 4.4 Training and quality of labour 6
- 4.5 Smoking 7
- 4.6 Isolation of safety devices 7
- 4.7 Leak detection 7

## 5 Installation of propane fuel systems and tanks on highway vehicles 7

- 5.1 General 7
- 5.2 Fuel tanks 8
- 5.3 Fuel tank equipment 8
  - 5.3.1 Relief valves 8
  - 5.3.2 Liquid-level gauges 9
  - 5.3.3 Excess-flow and back check valves 9
  - 5.3.4 Shut-off and stop-fill valves 10
  - 5.3.5 Float gauges 10
  - 5.3.6 Fuel pumps 10
  - 5.3.7 Electrical installation 11
  - 5.3.8 Propane injectors 11
  - 5.3.9 Fuel rails and injector blocks 12
- 5.4 Tank installation 12
- 5.5 Tank and equipment protection 13
- 5.6 Tanks located within vehicles 14
- 5.7 Piping and tubing systems, hose, and fittings 15
  - 5.7.1 Piping 15
  - 5.7.2 Tubing 15
  - 5.7.3 Hose 16
  - 5.7.4 Size 16
  - 5.7.5 Distribution blocks 17
  - 5.7.6 Piping, tubing, and hose practices 17
  - 5.7.7 Joints and connections 17
  - 5.7.8 Prohibited practices 18
  - 5.7.9 Protection of piping, tubing, and hose 18
  - 5.7.10 Testing of piping, tubing, hose, and fittings 19
- 5.8 Discharge lines from tank relief valves and hydrostatic relief valves 19
- 5.9 Vaporizers and valves 20
- 5.10 Carburetors, carburetor mixers, and carburetor adapters 20

- 5.11 Fuel lock-offs 20
- 5.12 Wiring 20
- 5.13 Marking and labelling 21
- 5.14 Servicing, parking, and display of vehicles indoors 21

**Annexes**

- A** (informative) — Purging air and moisture using propane vapour 23
- B** (informative) — Guide for motor fuel tank installations 25
- C** (informative) — Recommended vehicle labels 28
- D** (informative) — Abbreviations 29
- E** (normative) — Relevant Standards for valves, components, and accessories 31

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**Tables**

- 5.1** — Steel tubing wall thickness 15
- 5.2** — GP copper tubing wall thickness 16

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# Preface

This is the fourth edition of CSA B149.5, *Installation code for propane fuel systems and tanks on highway vehicles*. It supersedes the previous editions, published in 2005 and 2000 by the Canadian Standards Association (CSA) as CAN/CSA-B149.5, and in 1995 by the Canadian Gas Association (CGA) as CAN/CGA-B149.5.

These requirements for the installation of propane fuel systems and tanks on highway vehicles were originally published in 1982 as an amendment to CAN/CGA-B149.2-80, *Propane Installation Code*, and were subsequently incorporated as Part 15 in the editions of CAN/CGA-B149.2 published in 1986 and 1991. In 1995, the Part 15 requirements were removed from CAN/CGA-B149.2 to create CAN/CGA-B149.5 for the convenience of those individuals involved with converting propane vehicles who do not require the CSA B149.1 and B149.2 Codes.

In this 2010 edition, where a major change or addition to the previous edition of the Code has been made, the clause, table, or figure affected is identified by the symbol delta ( $\Delta$ ) in the margin. Users of the Code are advised that the change markers in the text are not intended to be all-inclusive and are provided as a convenience only; such markers cannot constitute a comprehensive guide to the revisions made to the Code. Care must therefore be taken not to rely on the change markers to determine the current requirements of the Code. As always, users of the Code must consider the entire Code and any local amendments.

The CSA B149 Installation Code Committee, which is responsible for preparing this Code, consists of members of the provincial gas inspection authorities, natural gas utilities, propane distributors, appliance, equipment, and accessory manufacturers, certification organizations, and representatives from the Heating, Refrigeration and Air Conditioning Institute of Canada, the Mechanical Contractors Association of Canada, and federal government departments. This Code has been formally approved by the CSA B149 Installation Code Committee and by the Interprovincial Gas Advisory Council.

January 2010

## 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 Code is stated in its Scope, it is important to note that it remains the responsibility of the users of the Code to judge its suitability for their particular purpose.
- (3) This publication 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 publication.
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  - (b) relevant clause, table, and/or figure number;
  - (c) wording of the proposed change; and
  - (d) rationale for the change.



# B149.5-10

## ***Installation code for propane fuel systems and tanks on highway vehicles***

### **1 Scope**

#### **1.1**

This Code applies to the installation, servicing, and repair of propane fuel system **components** and **tanks** on highway vehicles for the provision of motive power. This does not apply to vehicles qualified under the Canadian *Motor Vehicle Safety Regulations*.

#### **1.2**

Where the term “propane” is used, the requirements of this Code include, and apply equally to, any material that is composed predominantly of any of the following hydrocarbons or a mixture of them: propane, propylene, butane (normal butane or isobutane), and butylenes.

#### **1.3**

This Code and any Standards referenced in it do not make or imply any assurance or guarantee with respect to the life expectancy, durability, or operating performance of **equipment** and materials referenced in the Code.

#### **1.4**

The values given in yard/pound units are the standard. This Code contains SI (metric) equivalents to yard/pound units so that the Code can be used in SI (metric) units. SI (metric) equivalents may be approximate.

#### **1.5**

In this Code, unless **approved** otherwise by the **authority having jurisdiction**, “shall” indicates a mandatory requirement; “should” indicates a recommendation or that which is advised but not mandatory; and “may” indicates an advisory or optional statement. Notes to the text do not include mandatory or alternative requirements. The purpose of a note is to separate from the text explanatory or informative material that is not properly a part of this Code. Notes to figures and tables, however, are considered part of the figure or table and may be written as mandatory requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

### **2 Reference publications**

This Code refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.