

Oil-burning equipment: Steam and hot-water boilers



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Preface

This is the second edition of CSA B140.7, *Oil-burning equipment: Steam and hot-water boilers*. This edition combines and replaces CSA B140.7.1-1976, *Oil-Fired Steam and Hot-Water Boilers for Residential Use*, and CSA B140.7.2-1967, *Oil-Fired Steam and Hot-Water Boilers for Commercial and Industrial Use*. CSA B140.7.1 and B140.7.2, along with CSA B140.12, *Service Water Heaters for Domestic Hot Water, Space Heating, and Swimming Pools*, replaced the first edition of CSA B140.7, *Oil-Fired Steam and Hot-Water Boilers and Service Water Heaters*, published in 1962.

CSA B140.7 is one of a series of oil-burning equipment standards providing minimum requirements for the safe operation and the acceptable performance, design, construction, manufacture, marking and testing of oil-burning equipment. It should be read in conjunction with CSA B140.0, *General Requirements for Oil-Burning Equipment*.

In addition to the changes resulting from combining CSA B140.7.1 and B140.7.2, there are minor changes throughout the new edition and some new requirements for marking and installation instructions.

This Standard was prepared by the Subcommittee on Steam and Hot-Water Boilers under the jurisdiction of the Technical Committee on Oil-Burning Appliance Standards and the Strategic Steering Committee on Fire Safety and Fuel-Burning Equipment, and has been formally approved by the Technical Committee. It will be submitted to the Standards Council of Canada for approval as a National Standard of Canada.

March 2005

Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) where 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 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) provide an explanation of circumstances surrounding the actual field condition; and
 - (c) be phrased where possible to permit a specific “yes” or “no” answer.Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are published in CSA’s periodical Info Update, which is available on the CSA Web site at www.csa.ca.

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B140.7-05

Oil-burning equipment: Steam and hot-water boilers

1 Scope

1.1

This Standard applies to complete vent (flue)-connected, oil-fired steam, and/or hot-water boilers that are provided with automatic control devices.

1.2

This Standard applies to

- (a) boilers intended for residential use having an input of less than 11.5 L/h (3 USGPH), which is approximately equivalent to 117 kW (400 000 Btu/h);
- (b) low-pressure boilers intended for commercial and industrial use having an input of 11.5 L/h (3 USGPH) or more; and
- (c) high-pressure boilers regardless of intended use or input.

1.3

This Standard applies to boilers, factory- or field-assembled, that have been, or could have been, completely assembled at the manufacturer's plant and transported in the assembled condition.

1.4

This Standard also applies to

- (a) oil-fired boilers that have gas-fired pilots and that have an input of 11.5 L/h (3 USGPH), which is approximately 117 kW (400 000 Btu/h), or more; and
- (b) boilers that may be gas fired as an alternative.

1.5

This Standard does not cover the devices required on the gas train of the boilers described in [Clause 1.4](#).

1.6

A unit that differs from those specified by this Standard may be examined and tested according to the intent of this Standard.

1.7

A unit that otherwise complies with the requirements of this Standard will not be deemed as complying with this Standard if it has other, or a combination of, features that, when examined and tested, are found to impair its fulfillment of the requirements.

1.8

This Standard also applies to boilers intended for heating swimming pool water (see [Clause 3.6](#)).