



CSA B140.7:22
National Standard of Canada



Oil-fired steam and hot-water boilers



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boilers***



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Preface

This is the third edition of CSA B140.7, *Oil-fired steam and hot-water boilers*. It supersedes the previous edition, published in 2005 under title *Oil-burning equipment: Steam and hot-water boilers*. The 2005 edition combined and replaced 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 CSA 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, acceptable performance, design, construction, manufacture, marking, and testing of oil-burning equipment. It should be read in conjunction with CSA B140.0, *Oil-burning equipment: General requirements*.

The major changes in this edition include the following:

- a) The title has been changed from *Oil-burning equipment: Steam and hot-water boilers* to *Oil-fired steam and hot-water boilers*.
- b) The scope has been changed to include direct vented and condensing boilers (Clause [1.1](#)).
- c) Reference publications have been updated (Clause [2](#)).
- d) All definitions have been deleted, and a reference has been inserted to redirect users to the definitions in CSA B140.0 (Clause [3](#)).
- e) The requirement for electrical features has been removed because it is covered in CSA B140.0.
- f) General requirements have been added for condensing boilers (Clause [4.4](#)).
- g) A new requirement has been added requiring appliances tested for use with biodiesel content in excess of 5% to have the burner and the fuel-delivery system components acceptable to the certification body for the blend specified (Clause [4.7](#)).
- h) The specific requirements for the pressure vessel section of the boiler have been replaced with a general requirement that they need to be acceptable to the certification body in accordance with the applicable codes (Clause [5.1](#)).
- i) The nomenclature for expressing input rate for the boiler has been changed from volume flow per hour to energy input per hour throughout the Standard.
- j) Clarification for the suitability of metal combustion chambers has been provided (Clause [5.11.3](#)).
- k) Guidance has been provided when stating the input rate and other information on markings when acceptable to the certification body for use with biodiesel blends and No. 1 (kerosene) oil (Clause [6.1.2](#)).
- l) Guidance has been provided when stating the input rate and other information in the installation and service manual when acceptable to the certification body for use with biodiesel blends and No. 1 (kerosene) oil (Clause [7.2](#)).
- m) The information required in the installation and service manual has been updated to match the various changes in the Standard (Clause [7.2](#)).
- n) The information required in operating instructions and homeowner instruction has been updated to match the various changes in the Standard (Clause [7.3](#)).
- o) Guidance has been added for testing when the boiler is acceptable to the certification body for use with biodiesel blends (Clauses [8.1](#)).
- p) The maximum smoke limits have been included in this Standard. Previously they were deferred to the applicable installation code (Clause [8.2.1.2](#)).
- q) The maximum flue temperature has been modified to include condensing boilers (Clause [8.2.1.3](#)).
- r) Requirements have been added when testing with biodiesel content in excess of 5% (Clause [8.2.2.7](#)).