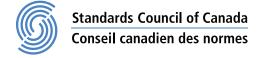


# **CSA B140.9.3:M86**National Standard of Canada (reaffirmed 2020)



## Portable kerosine-fired heaters





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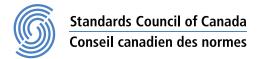
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## National Standard of Canada

## CSA B140.9.3:M86 **Portable kerosine-fired heaters**



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## **Preface**

This is the second edition of CSA Standard B140.9.3 (now CAN3-B140.9.3), Portable Kerosine-Fired Heaters, and supersedes the first edition published in 1979.

This Standard covers minimum requirements for the safe operation, acceptable performance, design, construction, manufacture, marking, and testing of unvented, portable kerosine heaters.

This edition differs from the first edition in that additional safety features for guards, grilles, and flame adjustment have been included, and it covers requirements for heaters equipped with pressurized-type fuel delivery systems, automatic controls, and an emergency shut-off device.

Safe and satisfactory operation of kerosine heaters depends on the provision of adequate ventilation and use of the specified type of kerosine as the fuel.

This Standard was prepared by the CSA Subcommittee on Kerosine-Fired Heaters under the jurisdiction of the Technical Committee on Oil Burning Appliance Standards and the Standards Steering Committee on Fire Safety and Fuel Burning Equipment, and was formally approved by these Committees. It has been approved as a National Standard of Canada by the Standards Council of Canada.

#### February 1986

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- (a) define the problem, making reference to a specific Clause, and, where appropriate, include an illustrative sketch;
- (b) provide an explanation of circumstances surrounding the actual field condition; and

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## CAN3-B140.9.3-M86

## Portable Kerosine-Fired Heaters

#### 1. Scope

#### 1.1

This Standard applies to kerosine-fuelled appliances with capacities up to 4400 W that are primarily used as portable space heating appliances.

#### 1.2

Appliances with input capacities greater than 4400 W may be examined and tested in accordance with these requirements and with any additional requirements deemed necessary by the regulatory authority.

#### 1.3

This Standard applies to unvented heaters, in which the products of combustion are discharged into the space being heated.

#### 1.4

This Standard applies to those heaters in which only Type No. 1-K kerosine is intended to be used as a fuel.

#### 1.5

This Standard applies to heaters in which fuel is supplied to the burner by a wick under atmospheric pressure conditions, and to heaters in which fuel is fed to the burner under pressurized conditions.

#### 1.6

This Standard includes requirements for materials, construction, performance, durability, marking, and instructions.

#### 2. Reference Publications

#### 2.1

This Standard refers to the following publications and where such reference is made it shall be to the edition listed below, including all revisions published thereto. Reference publications should be applied in the context of this Standard.

#### **CSA Standards**

B139-1976,

Installation Code for Oil Burning Equipment;

B140.0-1972,

General Requirements for Oil Burning Equipment;

B140.1-1966 (R1980),

Vapourizing-Type Oil Burners;

B140.2.1-1973,

Oil Burners, Atomizing Type;

C22.2 No. 3-1979,

Electrical Features of Fuel-Burning Equipment;

C22.2 No. 100-M1985,

Motors and Generators.

#### **ASTM Standards**

B154-82.

Mercurous Nitrate Test for Copper and Copper Alloys;

D471-79.

Rubber Property—Effect of Liquids.

#### CGSB\* Standards

CAN2-3.3-M78,

Kerosine:

4-GP-81Ma-1981,

Cloth, Cotton, Cheesecloth.

\*Canadian General Standards Board.

#### 3. Definitions

#### 3.1

Definitions of terms used in this Standard are listed in CSA Standard B139.

#### 4. General Requirements

## 4.1 Carbon Monoxide/Carbon Dioxide Ratio

During the test described in Clause 8.2, the CO/CO<sub>2</sub> ratio shall not exceed 0.007 for wick type heaters and 0.003 for pressurized heaters.