AS 2078—1977

Australian Standard®

# DOMESTIC OIL–FIRED APPLIANCES (QUALITY AND PERFORMANCE)

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Associated Chambers of Manufactures of Australia

Australian Gas Association

Australian Port and Marine Authorities

Department of Business and Consumer Affairs

Department of Construction

Department of Northern Australia

Department of the Capital Territory

Departments of Labour and Industry

Department of Mines

Electricity Supply Association of Australia

Insurance Council of Australia

Metal Trades Industry Association of Australia

Oil Burning Equipment Association of Australia

Petroleum Marketing Engineers Advisory Committee

Railways of Australia Committee

State Fire Services Council

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# DOMESTIC OIL–FIRED APPLIANCES (QUALITY AND PERFORMANCE)

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# PREFACE

This standard was prepared by the Association's Committee on Oil Fuel Installations at the request of the Oil Burning Industry Association of Australia, to complete the set of standards that cover domestic–type oil burning appliances.

When AS 1690, SAA Domestic Oil–fired Appliances Safe Design Code, was being drafted during 1974, it had been necessary to limit its scope to matters which related purely to safety, since it was intended that it be implemented and enforced by local government bodies whose authority was restricted to safety, and it could not, therefore, be used to enforce any degree of quality, durability, efficiency, and the like.

Once the more urgent safety standards were completed, it became possible to give some attention to a standard dealing with matters of economic interest to a purchaser. This standard is therefore a companion to AS 1690, and deals with matters of quality as distinct from safety.

Its contents have been derived from a number of sources, but generally considerable care has been taken to align it technically with the acceptance levels of BS 4876, Performance Requirements and Test Procedures for Domestic Flued Oil Burning Appliances, and with Australian gas industry standards. However, test procedures have been simplified wherever it was possible to do so.

This standard requires reference to the following standards:

| | |
|---|---|
| AS 1690 | SAA Domestic Oil–fired Appliances Safe Design Code |
| AS 1691 | SAA Domestic Oil–fired Appliances Installation Code |
| BS 593 | Laboratory Thermometers |
| BS 1042 | Methods for the Measurement of Fluid Flow in Pipes<br>Part 2A — Pitot Tubes: Class A Accuracy |
| ASTM D86 | Method of Test for Distillation of Petroleum Products |
| ASTM D93 | Method of Test for Flash Point by Pensky–Martens Closed Tester |
| ASTM D445 | Method of Test for Viscosity of Transparent and Opaque Liquids (Kinematic and Dynamic Viscosities) |
| ASTM D1298 | Method of Test for Specific Gravity of Petroleum Liquids, Hydrometer Method |
| ASTM D1551 | Method of Test for Sulfur in Petroleum Oils (Quartz–tube Method) |

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STANDARDS ASSOCIATION OF AUSTRALIA

# Australian Standard Specification for DOMESTIC OIL-FIRED APPLIANCES (QUALITY AND PERFORMANCE)

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This specification sets out the minimum requirements for quality in the design, construction and performance of fixed and flued domestic type oil-fired appliances of all types irrespective of their function or the type of their burners.

NOTES:

1. The appliances envisaged are not normally over 60 kW energy input rate.
2. For installation requirements see AS 1691, SAA Domestic Oil-fired Appliances Installation Code.

**1.2 NEW DESIGNS AND INNOVATIONS.** Notwithstanding the specific requirements of this specification, any novel material, design, method of assembly, etc, may be referred to SAA Committee ME/40 for a ruling as to whether or not the proposal would give equivalent results to those specified.

**1.3 INTERPRETATION.** Questions concerning the meaning, application or effect of any part of this specification may be referred to SAA Committee ME/40 for interpretation. The authority of this Committee is limited to matters of interpretation and it will not adjudicate in disputes.

**1.4 DEFINITIONS.** For the purpose of this specification the following definitions apply:

**1.4.1 Domestic-type appliance** — an appliance commonly used in, but not necessarily restricted to, private dwellings.

**1.4.2 Shall and Should** — the word ‘shall’ is to be understood as being mandatory. The word ‘should’ is advisory.

**1.4.3 May** — the word ‘may’ implies the right to use discretion.

**1.4.4 Oil fuel** — a Class C hydrocarbon liquid fuel, i.e. one having a flashpoint between 61°C and 150°C. Two distinct types of oil fuel fall within this classification, viz —

(a) heating oil, which is a specific product especially intended for use in vaporizing burners;

(b) distillate or diesel fuel.

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