

Australian Standard<sup>®</sup>

**Small craft**

**Part 1: General requirements for power  
boats**

**STANDARDS**  
Australia



This Australian Standard® was prepared by Committee CS-001, Small Craft. It was approved on behalf of the Council of Standards Australia on 17 September 2009. This Standard was published on 23 October 2009.

---

The following are represented on Committee CS-001:

- Australian Marine Industries Federation
  - Australian Maritime Safety Authority
  - Department of Transport, Energy and Infrastructure, SA
  - Marine Safety Victoria
  - Maritime Safety Queensland
  - National Marine Safety Committee
  - Institute of Marine Engineering Science and Technology
  - NSW Maritime
  - Plastics and Chemicals Industry Association
  - Royal Institute of Naval Architects
  - Royal Volunteer Coastal Patrol
  - Yachting Australia
- 

This Standard was issued in draft form for comment as DR 08224.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

---

#### **Keeping Standards up-to-date**

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting [www.standards.org.au](http://www.standards.org.au)

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.org.au](mailto:mail@standards.org.au), or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

---

Australian Standard<sup>®</sup>

**Small craft**

**Part 1: General requirements for power  
boats**

Originally as part of AS 1799—1975.

Previous edition AS 1799.1—1992.

Third edition 2009.

Reissued incorporating Amendment No. 1 (May 2010).

Reissued incorporating Amendment No. 1 (September 2010).

**COPYRIGHT**

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 9275 8

## PREFACE

This Standard was prepared by the Standards Australia Committee CS-001, Small Craft, to supersede AS 1799.1—1992, *Small Pleasure Boats Code, Part 1: General requirements for power boats*.

*This Standard incorporates Amendment No. 1 (May 2010) and Amendment No. 2 (September 2010). The changes required by the Amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

In developing this edition, the Committee took cognisance of the publication, *National Assessment of Boating Fatalities in Australia, 1999–2004* published by the National Marine Safety Committee in May 2008.

Apart from a general update and editorial review, this edition incorporates a number of changes in requirements compared to the 1992 edition, the most significant of which are as follows:

- (a) The requirements for swamped buoyancy have been revised to make the criteria for acceptance clearer and the means of assessment more objective. This includes an in-water test to determine level flotation.
- (b) The arbitrary limit on tiller-steered outboard motors has been replaced by a test of manoeuvrability, based upon the approach used in the USA and Europe.
- (c) The assumed masses of outboard motors in Table 2.1 have been revised to align with the latest American Boat and Yacht Council (ABYC) data.
- (d) The minimum length at which the stability of a boat is assessed using a heeling test has been reduced from 7.5 m to 6 m.
- (e) A requirement to provide an operator's manual has been added.

While it was recognised that elements of AS 1799.1 are sometimes referenced in standards for commercial vessels, the Committee felt that this Standard could only adequately address the minimum safety requirements that apply when a boat is used recreationally, taking into account factors like typical patterns of usage and the anticipated competency of those on board a recreational boat in circumstances where it is felt that a boat designed for recreational use would be inadequate to serve a specific commercial purpose, certain requirements of AS 1799.1 may be appropriate.

Compliance with the following International Standards is deemed to satisfy the requirements of Sections 2 to 6 of this Standard, ISO 8666, ISO 9094-1, ISO 11592, ISO 11812, ISO 12216, ISO 12217-1, ISO 12217-3, ISO 13590, ISO 14946, ISO 15084, ISO 21487. Satisfying the requirements of AS 1799.1 (this Standard) is based on compliance in full with all of the equivalent ISO standards, but not a combination of ISO standards and the requirements in this Standard. See Clause 1.5 for the appropriate ISO Design Category.

At the time of publication of this Standard, the future of the other Parts in the AS 1799 series had yet to be determined.

The terms 'normative' and 'informative' are used to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

## CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE .....	5
1.2 REFERENCED DOCUMENTS .....	5
1.3 DEFINITIONS .....	6
1.4 MARKING .....	10
1.5 ISO RELATIONSHIP .....	11
SECTION 2 MAXIMUM CAPACITIES AND BUOYANCY	
2.1 MAXIMUM LOAD CAPACITY FOR BOATS UP TO 6 m FOR PROTECTED WATERS.....	12
2.2 MAXIMUM PERSONS CAPACITY FOR PROTECTED WATERS .....	12
2.3 MAXIMUM PERSONS CAPACITY FOR OPEN WATERS.....	13
2.4 PROVISION OF SEATING AND STANDING POSITIONS .....	14
2.5 SWAMPED FLOTATION .....	14
2.6 MAXIMUM POWER CAPACITY.....	16
SECTION 3 HULL DESIGN	
3.1 GENERAL ARRANGEMENT.....	18
3.2 HULL DRAINAGE.....	18
3.3 DECKS.....	19
3.4 SELF-DRAINING COCKPITS AND WELLS ON WEATHER DECKS .....	19
3.5 QUICK-DRAINING COCKPITS, WELLS AND RECESSES .....	20
3.6 HATCHES AND EXTERIOR DOORS.....	21
3.7 EXITS FROM ENCLOSED ACCOMMODATION .....	21
3.8 WINDSHIELD AND WINDOWS.....	22
3.9 TRANSOM FOR OUTBOARD OR STERNDRIVE INSTALLATIONS.....	22
3.10 MOTOR WELL.....	22
3.11 BOAT HARDWARE AND FITTINGS .....	22
3.12 LIFTING SYSTEM.....	24
3.13 DISSIMILAR MATERIALS.....	24
SECTION 4 COOKING AND HEATING SYSTEMS	
4.1 LIQUEFIED PETROLEUM GAS (LP GAS) AND COMPRESSED NATURAL GAS (CNG) SYSTEMS.....	25
4.2 SYSTEMS OTHER THAN LP GAS or CNG.....	25
4.3 APPLIANCES .....	26
SECTION 5 STABILITY	
5.1 PERSONAL WATER CRAFT .....	27
5.2 PROTECTED WATERS REQUIREMENTS FOR BOATS UP TO 6 m .....	27
5.3 PROTECTED WATERS REQUIREMENTS FOR BOATS OVER 6 m AND OPEN WATERS REQUIREMENTS.....	28
5.4 MULTIHULL BOATS .....	30
SECTION 6 FIRE PROTECTION	
6.1 PORTABLE FIRE EXTINGUISHERS .....	32
6.2 FIXED FIRE EXTINGUISHING SYSTEM.....	32
6.3 INBOARD ENGINE COMPARTMENTS.....	33

## SECTION 7 OWNERS MANUAL

7.1	GENERAL .....	34
7.2	CONTENTS .....	34

## APPENDICES

A	METHOD FOR CALCULATING MAXIMUM LOAD CAPACITY .....	35
B	METHOD FOR DETERMINATION OF REQUIRED VOLUME OF FLOTATION MATERIAL .....	38
C	ASSESSMENT OF LEVEL FLOTATION .....	43
D	BILGE PUMPING .....	46
E	TESTS FOR WEATHERTIGHTNESS AND WATERTIGHTNESS .....	48
F	TEST FOR CONFIRMATION OF MAXIMUM POWER CAPACITY .....	49
G	GUIDE TO THE SELECTION OF PORTABLE FIRE EXTINGUISHERS .....	52

## STANDARDS AUSTRALIA

**Australian Standard**  
**Small craft**

**Part 1: General requirements for power boats**

SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard sets out requirements for maximum load, persons and power capacities, and for reserve buoyancy, stability, fire protection, testing of power boats and other safety aspects for craft up to 15 m in overall length used as recreational boats. It does not apply to boats used for commercial purposes or exclusively for racing, nor to canoes, kayaks, inflatable boats, rigid inflatable boats, yachts or auxiliary yachts.

**1.2 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

AS	
1799	Small Pleasure Boats Code
1799.3	Part 3: Engineering
2444	Portable fire extinguishers and fire blankets—Selection and location
4214	Gaseous fire extinguishing systems
4393	Small craft—Hull identification—Coding system
4594	Internal combustion engines—Performance
4594.1	Part 1: Standard reference conditions, declarations of power, fuel and lubricating oil consumption and test methods
4594.3	Part 3: Engines for land, rail-traction and marine use—Test measurements
5601	Gas installations
AS/NZS	
1841	Portable fire extinguishers
1841.1	Part 1: General requirements
1841.2	Part 2: Specific requirements for water type extinguishers
1841.3	Part 3: Specific requirements for wet chemical type extinguishers
1841.4	Part 4: Specific requirements for foam type extinguishers
1841.5	Part 5: Specific requirements for powder type extinguishers
1841.6	Part 6: Specific requirements for carbon dioxide type extinguishers
1841.7	Part 7: Portable fire extinguishers—Specific requirements for vaporising liquid type extinguishers
1850	Portable fire extinguishers—Classification, rating and performance testing
2080	Safety glazing for land vehicles
2906	Fuel containers—Portable—plastic and metal
60079	Explosive atmospheres
60079.29.1	Part 29.1: Gas detectors—Performance requirements of detectors for flammable gases