AS 4451.1—1997
ISO 8847:1987

Australian Standard®

Small craft—Steering systems

Part 1: Wire rope and pulley systems for sailing craft

[ISO title: Small craft—Steering gear—Wire rope and pulley systems]

This Australian Standard was prepared by Committee CS/1, Small Pleasure Boats. It was approved on behalf of the Council of Standards Australia on 31 December 1996 and published on 5 March 1997.

The following interests are represented on Committee CS/1:

Aluminium Development Council

Australasian Corrosion Association

Australian Boating Industry Association

Australian Customs Service

Australian Maritime Safety Authority

Australian Yachting Federation

Boat Owners Association of N.S.W.

Department of Defence

Institute of Marine Engineers

Police Department, N.S.W.

Queensland Department of Transport

University of New South Wales

Waterways Authority

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Originated as part of AS 1799—1975.
Previous edition part of AS 1799.3—1985.
Revised and redesignated in part as AS 4451.1—1997.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7337 0939 7

PREFACE

This Standard was prepared by the Standards Australia Committee CS/1, Small Pleasure Boats, to supersede (in part) AS 1799.3—1985, *Small Pleasure Boats Code,* Part 3: *Engineering*.

The objective of this Standard is to provide the minimum requirements for wire rope and pulley steering systems for sailing craft.

This Standard is identical with and has been reproduced from ISO 8847:1987, *Small craft—Steering gear—Wire rope and pulley systems*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian Standards as follows:

ISO		AS	
8844	Small craft—Steel wire ropes and strands—Specifications	3569	Steel wire ropes

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NOTES

AUSTRALIAN STANDARD

Small craft—Steering systems

Part 1:
Wire rope and pulley systems for sailing craft

1 Scope and field of application

This International Standard specifies the minimum level of requirements for construction, operation and installation of wire rope and pulley steering systems on sailing craft, with or without an auxiliary engine.

This International Standard sets requirements for the design and construction of all components of a steering system from the wheel to, and including, the steering arm. It applies only to wire rope and pulley steering systems, whether for pedestal or bulkhead types.

The design and specifications for the rudder shaft and rudder blade are within the province of the naval architect and are assumed to be appropriate to the size and speed of the boat.

2 Reference

ISO 8844, *Small craft — Steel wire ropes and strands — Specifications*.[1)]

3 Conditions of use

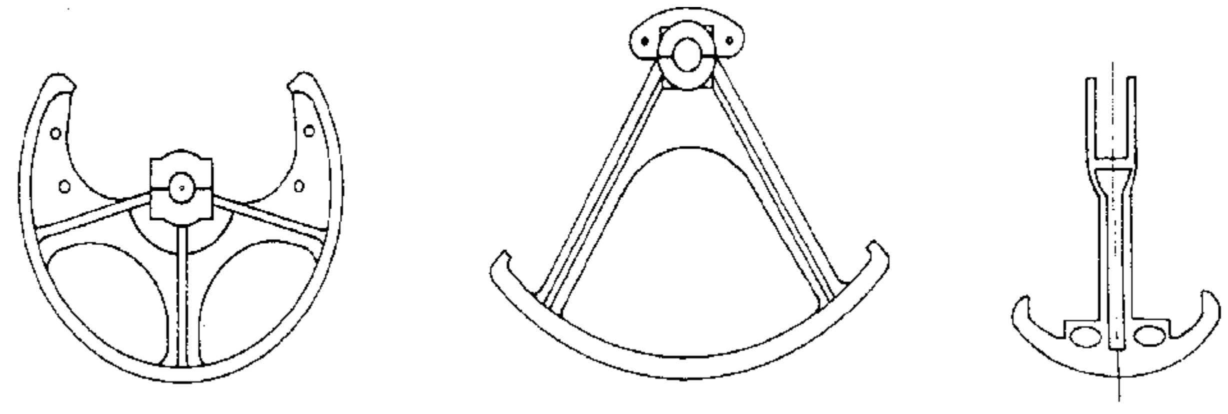
To ensure the proper operation of a steering system, all components shall be fastened securely to the structure of the boat, reinforced where necessary especially at the bulkhead mounting pedestal and at pulleys.

The steering arm connection to the rudder shaft shall also be capable of transmitting the steering torque to the rudder.

4 Definitions

4.1 wire rope pulley steering system: System in which rotation of the steering wheel positions the rudder blade by means of a sprocket, a chain, wire ropes, pulleys and a steering arm fastened to the rudder shaft.

4.2 steering arm: Component fixed to the rudder shaft with at least one groove for the wire rope concentric to the shaft centre. The steering arm may be a wheel quadrant [see figure 1a)], a quadrant [see figure 1b)] or a tiller quadrant [see figure 1c)].



a) Wheel quadrant b) Quadrant c) Tiller quadrant

Figure 1 – Steering arm types

1) At present at the stage of draft.