

AS 1986—1987

Australian Standard[®]

**SHIPBUILDING—GUARDRAILS
FOR CARGO SHIPS**

This Australian standard was prepared by Committee MS/22, Shipbuilding. It was approved on behalf of the Council of the Standards Association of Australia on 11 February 1987 and published on 6 April 1987.

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Association of Australian Port and Marine Authorities
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FOR CARGO SHIPS**

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PREFACE

This standard was prepared by the Association's Committee on Shipbuilding. It is identical with and has been reproduced from ISO 5480—1979, Shipbuilding—Guardrails for Cargo Ships. It supersedes AS 1986—1977, Guardrails, Stanchions, and Storm Rails for Ships (For Other Than Machinery Spaces).

The purpose of this standard is to specify dimensions, materials, and quality of guardrails and stanchions used to prevent persons falling overboard and to lower decks.

For the purpose of this Australian standard, the text of the ISO Standard used herein should be modified as follows:

- (a) *Terminology.* The words 'Australian standard' should replace the words 'International Standard' wherever they appear.
- (b) *Decimal sign.* A dot on the line should replace the comma wherever it appears as a decimal sign.
- (c) *Cross-references.* The references to International Standards should be replaced by references to Australian standards as follows:

<i>Reference to International Standard</i>	<i>Appropriate Australian Standard</i>
ISO 31, Part 3, Quantities and Units of Mechanics	AS 2900.3, Quantities, Units, and Symbols, Part 3—Quantities and Units of Mechanics
ISO 65, Steel Tubes Suitable for Screwing in Accordance with International Standard ISO 7	AS 1074, Steel Tubes and Tubulars Threaded or Suitable for Threading with Pipe Threads of Whitworth Form
ISO/R 887, Washers for Hexagon Bolts and Units—Metric Series	AS 1237, Flat Metal Washers for General Engineering Purposes
ISO 898/1, Mechanical Properties of Fasteners, Part 1: Bolts, Screws and Studs	AS 1110, ISO Metric Hexagon Precision Bolts and Screws
ISO 1461, Metallic Coatings—Hot Dip Galvanized Coatings on Fabricated Ferrous Products—Requirements	AS 1214, Hot-dip Galvanized Coatings on Threaded Fasteners (ISO Metric Coarse Thread Series)

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Shipbuilding — Guardrails for cargo ships

0 Introduction

This International Standard specifies requirements for marine guardrails and stanchions for cargo ships to comply with the regulations of the International Convention on Loadlines 1966, Annex I, Chapter II, Regulation 25, Paragraphs 2 and 3.

NOTE — Users of this International Standard should note that while observing the requirements of the standard, they should at the same time ensure compliance with such statutory requirements, rules and regulations as may be applicable to the individual ship concerned.

1 Scope and field of application

This International Standard specifies dimensions, materials, quality of manufacture and finish for guardrails and stanchions which are fitted on exposed freeboard and superstructure decks of cargo ships to prevent personnel falling overboard or to lower decks. It does not concern guardrails which are fitted near compasses.

2 References

ISO 31, Part 3: *Quantities and units of mechanics*.

ISO 65, *Steel tubes suitable for screwing in accordance with International Standard ISO 7*.

ISO/R 887, *Washers for hexagon bolts and nuts — Metric series*.

ISO 898/1, *Mechanical properties of fasteners, Part 1: Bolts, screws and studs*.

ISO 1461, *Metallic coatings — Hot dip galvanized coatings on fabricated ferrous products — Requirements*.

3 Definitions

For the purposes of this International Standard, the following definitions shall apply:

3.1 guardrail: A construction comprising stanchions, rails, toprails and stays (see figures 1 and 4).

3.2 stanchion: The principal vertical structural member of a guardrail system.

3.3 rails and toprails: Rails are the horizontal members between stanchions, the toprail being the uppermost rail in a series of rails.

3.4 stay: A secondary structural support attached to stanchions and deck.

4 Materials

The materials for the manufacture of individual components shall be as shown in the table.

TABLE—Components and materials of guardrails

Item No.	Component	Material	ISO No.	Remarks
1	Stanchions	Mild steel		Weldable
2	Stays	Mild steel		Weldable
3	Toprails, tube	Steel	65	Weldable
	Toprails, wooden	Teak	—	Or other suitable hardwood
4	Rails	Steel		Weldable
5	Washers	Brass or steel	R 887	
6	Nuts	Brass or steel	—	
7	Bolts	Steel	898	
8	Screws	Brass or steel	—	Wood screws