AS 1037—1983

Australian Standard®

STEEL LADDERS FOR SHIPS

INCLINED LADDERS FOR USE IN OTHER THAN MACHINERY SPACES

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American Bureau of Shipping
Australian Chamber of Shipping
Australian Shipbuilders Association
Bureau Veritas
Department of Defence
Department of Industry and Commerce
Department of Transport
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Institute of Marine Engineers
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PREFACE

This edition of the standard was prepared by the Association's Committee on Shipbuilding, to supersede AS 1037—1971. There are minor technical changes to the standard, some minor corrections and updating of references to Australian standards; some editorial rearrangement has also been carried out.

A requirement has been added to restrict to 6000 mm the vertical distance of ladders between landings. Also all reference to imperial units has been omitted.

Users of this standard should also note that in addition to 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.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
STEEL LADDERS FOR SHIPS—INCLINED LADDERS FOR USE IN OTHER THAN MACHINERY SPACES

1 SCOPE. This standard specifies requirements for steel ladders inclined at angles 58 to 70 degrees to the horizontal, and having handrails or other suitable means of providing personal safety, for use other than in machinery spaces in ships, where the minimum height between landings is 1 m. The ladders are used on decks, in holds, in tanks and any other spaces not including machinery spaces.

NOTES:

1. Handrails, cages and landings are specified in AS 1657, SAA Code for Fixed Platforms, Walkways, Stairways and Ladders, and AS 1986, Guard Rails, Stanchions and Storm Rails for Ships (for other than machinery spaces).
2. Vertical steel ladders for ships are specified in AS 1035.
3. Inclined steel ladders for ships machinery spaces are specified in AS 1036.

2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1101 Graphical Symbols for General Engineering
Part 3—Symbols for Welding

AS 1204 Structural Steels—Ordinary Weldable Grades

AS 1554 SAA Structural Steel Welding Code
Part 1—Welding of Steel Structures

3 CLASSIFICATION. The ladders shall be classified by a type code according to the shape of the steps, the orientation of square rungs and the cross-sectional shape of the stiles, as follows:

(a) The first letter indicates the shape of the steps; those of the tread type shall be Type T, those consisting of round rungs shall be Type R and those consisting of square rungs shall be Type S.

(b) The second letter, applicable to Type S ladders only, indicates the orientation of the rungs; those in which a diagonal of the square is vertical shall be indicated by D; those in which two faces of the square are vertical shall be indicated by F.

(c) The final letter indicates the shape of the stile; those in which the stiles are fabricated from angle section material shall be indicated by A; those in which the stiles are fabricated from rectangular bar shall be indicated by B; and those in which the stiles are fabricated from channel section material shall be indicated by C.

Table 1 illustrates the various classified types in this standard.

4 DEFINITIONS. For the purpose of this standard, the following definitions apply:

4.1 Shall and Should—'shall' is taken to be mandatory; 'should' is taken to be advisory.

4.2 Ladder—a structure with steps attached to stiles for ascending and descending from one level to another.

4.3 Stile—a sloping member of a ladder onto which the steps are mounted. Stiles usually occur in pairs. The terms 'side rail' and 'stringer' are synonymous with the term 'stile'.

4.4 Step—a horizontal member of a ladder consisting of a tread or two rungs.

4.5 Rung—a steel bar whose cross-section is either circular or square, used in the construction of a step.

4.6 Rise—the vertical distance between the tops of adjacent steps.

4.7 Tread—a step constructed in a form which presents a plane or suitably shaped surface.

4.8 Height *h*—the vertical distance between the datums at the decks, landings or platforms (see Fig. 1).

NOTE: The vertical dimensions required by the ladder manufacturers are not necessarily the vertical distance between decks, landings and platforms.

4.9 Base length *g*—the horizontal distance between the intersection of the centreline of the ladder with the datums of the decks, landings or platforms (see Fig. 1).

TABLE I

TYPES OF LADDERS

Type of step		Cross-section of stiles		
		Angle	Bar (Flat)	Channel
Tread	Floor plate	TA	TB	TC
Rung	Two circular rungs	RA	RB	RC
	Two square rungs diagonal vertical	SDA	SDB	SDC
	Two square rungs face vertical	SFA	SFB	SFC