Australian Standard®

STEEL LADDERS FOR SHIPS

INCLINED LADDERS FOR MACHINERY SPACES

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PREFACE

This edition of the standard was prepared by the Association's Committee on Shipbuilding, to supersede AS 1036—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 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 in machinery spaces in ships, where the minimum height between landings is 1 m.

The ladders are used in all spaces for propelling, auxiliary, refrigerating, ventilating and air-conditioning machinery, for boilers, pumps, workshops, generators, and similar spaces and trunks thereto.

NOTES:

1. Handrails, cages and landings are as specified in AS 1657, SAA Code for Fixed Platforms, Walkways, Stairways and Ladders.
2. These ladders may have dust catchers fitted under the stiles according to purchaser requirements.
3. Vertical steel ladders for ships are specified in AS 1035.
4. Inclined steel ladders other than for ships machinery spaces are specified in AS 1037.

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 geometry of the lower ends 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 indicates the orientation of the rungs: those in which a diagonal of the square is vertical shall be indicated by D and those in which two faces of the square are vertical shall be indicated by F.

(c) The geometry of the lower end of the stiles shall be indicated in the following manner: those in which the lower section of the stile is straight shall have no additional designating letter and those in which the lower section of the stile is knuckled shall be indicated by the addition of the letter K.

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 of the decks, landings or platforms (see Fig. 1).

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

TABLE 1
TYPES OF LADDERS

Type of step		Type designation	
		Lower section of stile straight	Lower section of stile knuckled
Tread	Floor plate	T	TK
Rung	Two circular rungs	R	RK
	Two square rungs diagonal vertical	SD	SDK
	Two square rungs face vertical	SF	SFK