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Australian Standard 1735, Part 6—1982

SAA LIFT CODE
Part 6—MOVING WALKS

STANDARDS ASSOCIATION OF AUSTRALIA
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Association of Consulting Engineers Australia

Association of Independent Lift Companies

Australian Chamber of Commerce

Board of Fire Commissioners of New South Wales

Building Owners and Managers Association of Australia Limited

Confederation of Australian Industry

Department of the Capital Territory

Department of Housing and Construction

Department of Industrial Affairs and Employment, S.A.

Department of Industrial Relations, N.S.W.

Department of Labour and Industry, Tas.

Department of Labour and Industry, Vic.

Department of Labour and Industry, W.A.

Department of Employment and Labour Relations, Qld

Department of Mines and Energy, N.T.

Department of Public Works, N.S.W.

Institution of Engineers, Australia

Insurance Council of Australia

Lift Manufacturers Association of Australia

Royal Australian Institute of Architects

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AUSTRALIAN STANDARD

THE DESIGN, INSTALLATION, TESTING AND OPERATION OF LIFTS, ESCALATORS AND MOVING WALKS

known as the
SAA LIFT CODE

Part 6
MOVING WALKS

AS 1735, Part 6—1982

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PREFACE

This edition of this standard was prepared by the Association's Committee on Lift Installations to supersede AS 1735, Part 6—1975.

This standard deals with moving walks designed for carrying passengers.

Three basic types of moving walk are included, depending on the method of supporting the treadway, viz roller-bed, edge-supported and slider-bed types, while the treadway itself, which is the passenger-carrying member, may be of the belt, the belt-pallet or the pallet type.

In the interests of both safety and passenger comfort, the maximum rated speed of a treadway has been related to the maximum treadway slope at the entrance and exit and at any other point throughout the treadway travel. Graphs are included for determining the maximum permissible treadway speed in relation to these slopes on a given installation.

Diagrams illustrate the method of measuring balustrade dimensions, the provision and size of ceiling guards, and combplate clearances between teeth and pallet grooves in pallet type treadways.

This edition includes the following technical changes from the 1975 edition:

(a) New Clause 130.12.10 has been included to require yellow lines on the treadway.

(b) Sections 131, 132, 133 and 135 have been amended to permit the use of treadway-band drive arrangements.

(c) Clause 131.8 has been amended to align with AS 2118.

(d) New Clause 131.11 has been included to require guards around access hatches.

(e) New Clause 133.12 has been included to reduce the possibility of objects being caught where the handrail enters the opening in the balustrade.

(f) Clause 135.1 has been amended to permit the use of PVC conduit.

Other changes of an editorial nature have been made to bring the standard into line with current SAA editorial policy.

This standard requires reference to the following standards:

AS 1215	V-belt Drives: Sections Y, Z, A, B, C and D
AS 1403	Design of Steel Shafts for Transmission of Power
AS 1532	Short Pitch Transmission Precision Roller Chains and Chain Wheels
AS 1680	Code of Practice for Interior Lighting and the Visual Environment
AS 1735	SAA Lift Code Part 1—General Requirements Part 2—Electric Lifts: Passenger and Goods
AS 1979	Flexible Travelling Cables for Lifts
AS 2052	Metallic Conduits and Fittings
AS 2053	Non-metallic Conduits and Fittings
AS 2118	SAA Code for Automatic Fire Sprinkler Systems
AS 2208	Safety Glazing Materials for Use in Buildings (Human Impact Considerations)
AS 3000	SAA Wiring Rules
AS 3116	Approval and Test Specification for Elastomer Insulated Electric Cables and Flexible Cables for Working Voltages of 0.6/1 kV
AS 3147	Approval and Test Specification for PVC Insulated Electric Cables and Flexible Cables for Working Voltages of 0.6/1 kV
AS 3187	Approval and Test Specification for Mineral-insulated Metal-sheathed Cable
AS 3191	Approval and Test Specification for Electric Flexible Cables

CONTENTS

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Australian Standard
for
THE DESIGN, INSTALLATION, TESTING AND OPERATION OF LIFTS, ESCALATORS AND MOVING WALKS

PART 6—MOVING WALKS

SECTION 130. SCOPE AND GENERAL

130.1 SCOPE. This standard sets out requirements for electric moving walks for carrying passengers. It includes requirements for design, manufacture, installation and operation.

This standard is complementary to AS 1735, Part 1, but the requirements of this standard take precedence over corresponding requirements of that standard.

130.2 SUPPORTS. Supports for moving walks shall be of steel or reinforced concrete or other approved non-combustile materials and shall be designed for not less than the sum of the following static loads:

(a) The mass of the complete moving walk, including cladding.

(b) The rated load calculated in accordance with Clause 130.3.2.

NOTE: 35 percent of the sum of (a) and (b) above should be considered as the rolling load in making allowances for vibration where necessitated by the form of the supporting structure.

130.3 LOAD RATING.

130.3.1 Structural. For the purpose of structural design, the load rating shall be considered to be not less than 4.75 kPa of exposed treadway.

130.3.2 Machinery. For the purpose of brake, treadway and power transmission calculations, the load rating shall be considered to be not less than 365 kg/m^2 of exposed treadway.

130.4 TRUSSES.

130.4.1 Construction. A truss, where provided, shall be of steel or other approved metals and shall be designed to safely sustain the treadway and running gear in operation. In the event of failure of the treadway, it shall retain the running gear in its guides.

Where tightening devices are operated by means of tension fittings, provision shall be made to retain these fittings in the trusses of their guides if they should be released.

A truss shall not support load from any portion of the building or adjacent equipment not being part of the moving walk.

130.4.2 Protection of Trusses. Where the truss is not positioned in a fire-resistant tunnel or duct accessible only to authorized persons, it shall be totally clad with and fixed to a suitable non-shattering, non-combustible material to resist the spread of fire from within the truss.

For the purposes of this requirement, the lower pit section shall be regarded as part of the truss.

130.4.3 Lighting of Trusses and Pits. Where exterior access is provided to trusses and pits, suitable electric lighting controlled by a switch adjacent to the entrance shall be provided.

130.4.4 Lighting at Inspection Panels. Where an inspection panel is provided for machinery spaces which contain unguarded moving parts, suitable electric lighting controlled by a switch adjacent to the opening shall be provided.

130.5 SLOPE. The slope of the moving treadway shall not exceed 12 degrees from the horizontal at any point (see Clause 130.7 for interdependence of treadway speed and treadway slope); however, the slope may be increased to a maximum of 15 degrees if there is an approved flattening at the ends of the treadway, which shall be subject to the approval of the Statutory Authority.

130.6 MEASURED SPEED. The speed actually measured on the unloaded treadway of the moving walk shall not exceed the rated speed by more than 5 percent.

130.7 RATED SPEED. The maximum rated speed of a treadway shall depend both on the maximum treadway slope at points of entrance or exit and on the maximum treadway slope at any other point on the treadway. The maximum speed of the exposed treadway surface shall not exceed the lesser of the speeds shown on Curves A and B in Fig. 130.7 as follows:

(a) For treadways with uniform slope .. Curve B.

(b) For entrances and/or exits ..... Curve A.

(c) Maximum slope of treadways of varying slope ..... Curve B.

In applying this Clause, a moving walk shall not be considered as having a reduced slope at the entrance and exit, unless both such reduced slopes continue for at least 400 mm from the combplate to the measurable starting point of transition.

130.8 WIDTH. The width of a moving walk shall be taken as the width between the balustrades, measured at a point 685 mm vertically above the treadway, and shall be not less than the width of the treadway. It shall not exceed the width of the treadway by more than 330 mm, with a maximum of 165 mm from either side of the moving walk. However, the width between balustrades shall be not less than 600 mm nor more than 1370 mm (see Clause 130.12.1 and Appendix A).