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Australian Standard 1735, Part 4—1982

SAA LIFT CODE

Part 4—POWER-OPERATED SERVICE LIFTS

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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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

This standard, prepared by Committee ME/4, Lift Installations, was approved on behalf of the Council of the Standards Association of Australia on 29 January 1982, and was published on 17 May 1982.

This standard was issued in draft form for comment as DR 78024.

AS 1735.4/Amdt 1/1982-12-06

STANDARDS ASSOCIATION OF AUSTRALIA

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Amendment No 1
to
AS 1735, Part 4—1982
SAA LIFT CODE
PART 4—POWER-OPERATED SERVICE LIFTS

CORRECTIONS

SUMMARY: This amendment applies to Table 95.1(A) and Clause 98.5(b).

Published on 6 December 1982.

AUSTRALIAN STANDARD

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

known as the
SAA LIFT CODE

Part 4
POWER-OPERATED SERVICE LIFTS

AS 1735, Part 4—1982

First published (included in AS CA3) 1970
Revised and issued as AS 1735, Part 4.....1975
Second edition 1982

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.

ISBN 0 7262 2500 2

PREFACE

This edition of this standard was prepared by the Association's Committee on Lift Installations after strong recommendations from regulatory authorities and the lift industry that the 1975 edition should be simplified. It supersedes the 1975 edition.

Service lifts are classified as follows:

(a) Class 1, to cover service lifts which normally do not require safety gear.

(b) Class 2, to cover the larger service lifts. These require safety gear.

(c) Undercounter.

In the simplification of this standard—

(i) the maximum rated speed has been limited to 1 m/s, it being considered that higher speeds may be dealt with as special cases;

(ii) flying counterweights have been excluded; and

(iii) inaccessible, electrohydraulic and rack types of service lifts have been excluded.

Screws are accepted as a suitable type of drive for power-operated service lifts, subject to compliance with Appendix A. The rulings on screw-type drives in the 1975 edition of this standard, which have been included in Appendix A, were considered to be inadequate in regard to safeguarding of the nut and protection of the screw against whip. Because of the time required to investigate these matters fully, it was not practicable to include other than the present provisions in Appendix A without unduly delaying publication of this edition.

The easing of the headroom requirements for Class 1 service lifts is based on the assumption that mechanics may stand on car roofs but not ride on them while the lift is in motion. In parallel with this, the headroom requirements for Class 2 service lifts have been increased (on the basis of AS 1735, Part 2) to allow for the assumption that the lifts being larger, mechanics might ride on them.

Other variations include a reduction of the minimum rated load from 68 kg to 50 kg, a reduction of the design density for rated load determination from 250 kg per cubic metre of car volume to 200 kg per cubic metre of car volume, a relaxation of the requirements for provision of car doors and a redefinition with regard to endless chain suspension drives where 'unidirectional' is now 'travel self-limiting' and 'bidirectional' is now 'travel not self-limiting'.

Two other significant requirements cover minimum chain pin diameters, where the pin is directly involved in car attachment, and the use of PVC conduit for service lift wiring.

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 1204	Structural Steels—Ordinary Weldable Grades
AS 1215	V-belt Drives: Sections Y, Z, A, B, C and D
AS 1532	Short Pitch Transmission Precision Roller Chains and Chains Wheels
AS 1656	Steel Wire Ropes (Other Than for Mining Purposes)
AS 1657	SAA Code for Fixed Platforms, Walkways, Stairways and Ladders
AS 1720	SAA Timber Engineering Code
AS 1735	SAA Lift Code Part 1—General Requirements Part 2—Electric Lifts: Passenger and Goods Part 10—Tests Part 11—Fire-rated Landing Doors
AS 1979	Flexible Travelling Cables for Lifts
AS 2052	Metallic Conduits and Fittings
AS 2053	Non-metallic Conduits and Fittings
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 Cables
AS 3191	Approval and Test Specification for Electric Flexible Cords
AS MB1	SAA Steel Wire Rope Manual
ISO 2020	Flexible Steel Wire Rope for Aircraft Controls—Technical Specification

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

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

PART 4—POWER-OPERATED SERVICE LIFTS

SECTION 80. SCOPE, CLASSIFICATION AND TYPES

80.1 SCOPE. This standard sets out requirements for power-operated service lifts of the types listed in Clause 80.3 and intended for operation under any of the following conditions:

(a) Rated car speed of 1 m/s or less.

(b) Rated load exceeding 12 kg.

NOTE: Lifts required to carry a load in the range of 12 kg to 50 kg are designed for and rated at 50 kg, because of the possibility of a person standing on the roof.

(c) Internal car volume exceeding 0.06 m^3.

The standard includes requirements for design, manufacture, installation and operation.

This standard is complementary to AS 1735, Part 1 and the relevant requirements of AS 1735, Part 2, but the requirements of this standard take precedence over corresponding requirements in those standards.

NOTE: It is not intended that this standard should prohibit service lifts outside its scope. For the requirements for service lifts outside the scope of this standard, reference should be made to the Statutory Authority.

80.2 CLASSIFICATION. Service lifts within the scope of this standard shall be classified as follows:

(a) *Class 1 service lift*—a service lift of which the rated load, floor area, car depth and internal car height do not exceed the values specified in Clause 81.1.

(b) *Class 2 service lift*—a service lift of which the rated load, *or* floor area, *or* car depth, *or* internal car height exceeds the relevant value specified in Clause 81.1 but does not exceed the values specified in Clause 81.2.

(c) *Undercounter service lift*—a service lift, for which the top landing entrance and all the liftwell equipment are installed beneath a counter, bench or similar item of furniture (see Clause 81.3).

80.3 TYPES.

80.3.1 Class 1 and Class 2 Service Lifts. Recognized types of Class 1 and Class 2 service lifts are as follows:

(a) Traction drive.

(b) Drum drive.

(c) Endless chain suspension (travel self-limiting).

(d) Endless chain suspension (travel not self-limiting).

80.3.2 Undercounter Service Lifts. Undercounter service lifts shall be of the following types:

(a) Traction drive.

(b) Endless chain suspension (travel self-limiting).