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Part 4

AS 1735, Part 4—1982  
UDC 621.876-83  
Std (66)

# Australian Standard 1735, Part 4—1982

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SAA LIFT CODE

Part 4—POWER-OPERATED  
SERVICE LISTS



**STANDARDS ASSOCIATION OF AUSTRALIA**

*Incorporated by Royal Charter*



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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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 7 May 1982.

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

7 DEC 1982

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**

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**CORRECTIONS**

*SUMMARY:* This amendment applies to Table 95.1(A) and Clause 5.5.

Published on 6 December 1982.

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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 4 POWER-OPERATED SERVICE LIFTS

AS 1735, Part 4—1982

|   |      |
|---|------|
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## 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 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 kN to 50 kN, 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, 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 'level 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 V, Z, A, B, C and D   |
| AS 1532  | Short Pitch Transmissions, 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<br>Part 1—General Requirements<br>Part 2—Electric Lifts: Passenger and Goods<br>Part 10—Tests<br>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<sup>3</sup>.

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).