

Australian Standard[®]

**Underground mining—Winding
suspension equipment**

Part 3: Rope cappings

This Australian Standard was prepared by Committee ME/18, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 8 August 1997 and published on 5 December 1997.

The following interests are represented on Committee ME/18:

Australasian Institute of Mining and Metallurgy
Australian Chamber of Commerce and Industry
Australian Coal Association
Bureau of Steel Manufacturers of Australia
Chamber of Minerals and Energy of Western Australia
Department of Mineral Resources, N.S.W.
Department of Minerals and Energy, W.A.
Department of Mines and Energy, Qld
Department of National Resources and Environment, Victoria
Institution of Engineers, Australia
Institution of Mining Engineers
Minerals Council of Australia
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Part 3: Rope cappings

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Second edition 1997.

PREFACE

This Standard was prepared by the Standards Australia Committee ME/18 on Mining Equipment, to supersede AS 3637.3—1989.

It incorporates the following major changes to the 1989 edition:

- (a) Requirements for inspection and examination have been added in Clause 9.
- (b) Additional requirements specific to wedge-type capels have been included in Appendices A and C.
- (c) Type A components of rope cappings in Table 1 have been reviewed.
- (d) Figures 3, 4 and 5 have been updated.
- (e) Appendix B has been updated and expanded to include all types of cappings.

Reference was made to the British Coal document '*Procedure for examining suspension gear at testing centres*' in the preparation of Appendix B. Reference was also made to the '*Ropeman's Handbook*' in the preparation of Appendix C.

This is one of a series of Standards for underground mine winding suspension equipment. The Standards in this series are as follows:

AS

- 3637 Underground mining—Winding suspension equipment
- 3637.1 Part 1: General requirements
- 3637.2 Part 2: Detaching hooks
- 3637.3 Part 3: Rope cappings
- 3637.4 Part 4: Drawbars and connecting links
- 3637.5 Part 5: Rope swivels and swivel hooks
- 3637.6 Part 6: Shackles and chains

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA

Australian Standard

Underground mining—Winding suspension equipment

Part 3: Rope cappings

1 SCOPE This Standard specifies requirements for the following types of rope cappings used in the suspension of conveyances and balance ropes in vertical shafts and slope haulage declines of underground mines:

- (a) Fluted wire rope socket.
- (b) Rope socket.
- (c) Thimble and rope clamps.
- (d) Thimble-type capel.
- (e) Wedge-type capel.

Guide and rubbing rope cappings are excluded.

Additional requirements for wedge-type capels are specified in Appendix A.

General requirements for all capel types are specified in AS 3637.1.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 1252 High strength steel bolts with associated nuts and washers for structural engineering
- 2193 Methods for calibration and grading of force-measuring systems of testing machines
- 3569 Steel wire ropes
- 3637 Underground mining—Winding suspension equipment
- 3637.1 Part 1: General requirements

BS

- 643 Specification for white metal ingots for capping steel wire ropes

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Balance rope—one or more wire ropes connecting the undersides of a pair of conveyances.

3.2 Conveyance—a car, carriage, cage, skip, kibble or stage, in which persons, minerals or materials are wound through a shaft and any counterweight.

3.3 Fluted wire rope socket—a capping consisting of a socket fastened to a rope by a precast fluted white metal plug and tail. (See Figure 1.)

3.4 Rope capping—a capel or similar appliance fitted to the end of a wire rope for the purpose of attaching a conveyance to the rope.

3.5 Rope socket—a capping consisting of a socket fastened to a rope by filling the body of the socket with white metal or resin. (See Figure 2.)