

Australian Standard™

**Underground mining—Winding  
suspension equipment**

**Part 2: Detaching hooks**



This Australian Standard was prepared by Committee ME-018, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 18 July 2005. This Standard was published on 2 November 2005.

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The following are represented on Committee ME-018:

Australasian Institute of Mining and Metallurgy  
Australian Chamber of Commerce and Industry  
Australian Coal Association  
Australian Industry Group  
Department of Industry and Resources WA  
Department of Natural Resources and Mines (Qld)  
Department of Primary Industries, Mine Safety (NSW)  
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**Underground mining—Winding  
suspension equipment**

**Part 2: Detaching hooks**

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## PREFACE

This Standard was prepared by the Standards Australia Committee ME-018, Mining Equipment, to supersede AS 3637.2—1989.

The objective of this Standard is to provide requirements for the safe application of detaching hooks in underground vertical mine shafts.

This Standard is one of a series of Standards on underground mine winding suspension equipment, as follows:

AS 3637 Underground mining—Winding suspension equipment

AS 3637.1 Part 1: General requirements (this Standard)

AS 3637.2 Part 2: Detaching ropes

AS 3637.3 Part 3: Rope cappings

AS 3637.4 Part 4: Drawbars and connecting links

AS 3637.5 Part 5: Rope swivels and swivel hooks

AS 3637.6 Part 6: Shackles and chains

Reference was made to the British Coal documents, *Design Guide for Cage Suspension Gear* and *Procedure for Examining Cage Suspension Gear at Testing Centres*, in the preparation of Appendix A and Appendix B respectively.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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**STANDARDS AUSTRALIA****Australian Standard****Underground mining—Winding suspension equipment****Part 2: Detaching hooks****1 SCOPE**

This Standard specifies requirements for the design, manufacture, and testing of detaching hooks and the manufacture and testing of their associated catchplates/detaching bells for use with conveyances in underground vertical mine shafts.

General requirements are specified in AS 3637.1.

NOTE: Guidelines for the design of the hook region of detaching hooks are given in Appendix A.

**2 REFERENCED DOCUMENTS**

The following Standards are referred to in this Standard:

AS

1567 Copper and copper alloys—Wrought rods, bars and sections

1654 Limits and fits for engineering

1654.1 Part 1: Bases of tolerances, deviations and fits

1654.2 Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts

3637 Underground mining—Winding suspension equipment

3637.1 Part 1: General requirements

**3 DEFINITIONS**

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

**3.1 Catchplate/detaching bell**

An apparatus in a headframe which operates a detaching hook in the event of an overwind and from which the detached conveyance is suspended.

**3.2 Conveyance**

Any car, carriage, cage, or skip in which persons, minerals, or materials are wound through a shaft and any counterweight.

**3.3 Detaching hook**

A device located between the end of a winding rope and a conveyance so that in the event of an overwind, an ascending drum wound conveyance is detached from the rope and held in the headframe.

**4 SIZE DESIGNATION**

The size designation for detaching hooks shall be the working load limit in tonnes. Detaching hooks should be manufactured to the following size designations:

2.0, 5.0, 8.0, 10.0, 12.5, 15, 20, 25, 30, 40.