

Australian Standard™

**Underground mining—Slope haulage—  
Couplings, drawbars, and safety chains**

This Australian Standard was prepared by Committee ME-018, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 9 May 2005. This Standard was published on 29 June 2005.

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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)  
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**Underground mining—Slope haulage—  
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## PREFACE

This Standard was prepared by the Standards Australia Committee ME-018, Mining Equipment, to supersede AS 3751—1990.

The objective of this Standard is to facilitate the implementation and maintenance of functional and safe couplings, drawbars, and safety chains in underground mines and to facilitate clear communication in the trade and governance thereof.

In the preparation of Appendix B, cognizance was taken of British Coal document, *Design Guide for Cage Suspension*.

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 for information and guidance only.

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## STANDARDS AUSTRALIA

## Australian Standard

**Underground mining—Slope haulage—Couplings, drawbars, and safety chains****1 SCOPE**

This Standard specifies requirements for materials, design, manufacture and use of couplings, drawbars, and safety chains that connect slope haulage conveyances in underground mines.

## NOTES:

- 1 Inspection and maintenance are covered in Appendix A.
- 2 Information on ruling section and equivalent section is given in Appendix B.
- 3 The design of threaded components are covered in Clause 5.2 and Appendix C.

**2 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS

- |        |  |
|--------|--|
| 1065   | Non-destructive testing—Ultrasonic testing of carbon and low alloy steel forgings                                      |
| 1171   | Non-destructive testing—Magnetic particle testing of ferromagnetic products, components and structures                 |
| 1275   | Metric screw threads for fasteners   |
| 1391   | Methods for tensile testing of metals  |
| 1442   | Carbon steels and carbon-manganese steels—Hot-rolled bars and semi-finished products                                   |
| 1444   | Wrought alloy steels—Standard, hardenability (H) series and hardened and tempered to designated mechanical properties  |
| 1447   | Hot-rolled spring steels   |
| 1448   | Carbon steels and carbon-manganese steels—Forgings (ruling section 300 mm maximum)                                     |
| 1544   | Methods for impact tests on metals   |
| 1544.2 | Part 2: Charpy V-notch   |
| 1710   | Non-destructive testing—Ultrasonic testing of carbon and low alloy steel plate—Test methods and quality classification |
| 1733   | Methods for the determination of grain size in metals  |
| 2074   | Cast steels  |
| 2321   | Short-link chain for lifting purposes  |
| B199   | Undercuts and runouts for screw threads  |
| AS/NZS |  |
| 1050   | Methods for the analysis of iron and steel (All parts)   |