AS/NZS 3785.8:2016

Australian/New Zealand Standard™

Underground mining—Shaft equipment

Part 8: Conveyances for inclined shafts

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-018, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 16 August 2016 and by the New Zealand Standards Approval Board on 8 August 2016.
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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 Industry Group
Construction and Mining Equipment Industry Group
Department of Industry, Skills and Regional Development, NSW
Department of Mines and Petroleum, WA
Department of Natural Resources and Mines, Qld
Minerals Council of Australia
Mining Electrical and Mining Mechanical Engineering Society
Solid Energy New Zealand
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of Standards Australia or the New Zealand Standards Executive at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS 3785.8:2015.

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Part 8: Conveyances for inclined shafts

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-018, Mining Equipment, to supersede AS 3785.8—1994, *Underground mining—Shaft equipment*, Part 8: *Personnel conveyances in other than vertical shafts*.

The objective of this Standard is to specify general requirements for conveyances used in inclined shafts that do not exceed a gradient of one in three.

It is one of a series of Standards on shaft equipment for underground mines. The other Standards in the series are as follows:

AS(/NZS)	
3785	Underground mining—Shaft equipment
3785.1	Part 1: Shaft overwind safety catch system
3785.2	Part 2: Shaft winding arresting systems
3785.3	Part 3: Drum winding gripper systems
3785.4	Part 4: Conveyances for vertical shafts
3785.5	Part 5: Headframes
3785.6	Part 6: Fixed guides, rope guides and rubbing ropes for conveyances
3785.7	Part 7: Sheaves

The principal differences between this and the previous edition are as follows:

(a) Expansion of the scope to cover all types of conveyances.

(b) Introduction of functional safety principles in the design philosophy of conveyances.

(c) Introduction of commissioning the conveyance on site.

(d) Introduction of in-service brake testing of the emergency braking system.

(e) Introduction of maintenance of conveyances.

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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1 SCOPE

This Standard specifies general requirements for conveyances used in inclined shafts that do not exceed a gradient of one in three. The conveyance system may be driven by a mounted or remote operator.

The conveyances are mounted on flanged wheels that operate on a railway track and hauled by a rope driven by a winder.

This Standard does not include requirements for the winder, rope, rope guidance system in the incline or the railway track.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1710 Non-destructive testing—Ultrasonic testing of carbon and low alloy steel plate and universal sections—Test methods and quality classification

3637 Underground mining—Winding suspension equipment
3637.1 Part 1: General requirements
3637.3 Part 3: Rope cappings
3637.4 Part 4: Drawbars and connecting links

3751 Underground mining—Slope haulage—Couplings, drawbars, and safety chains

3990 Mechanical equipment—Steelwork

4100 Steel structures

60204 Safety of machinery—Electrical equipment of machines
60204.1 Part 1: General requirements (IEC 60204-1, Ed. 5 (FDIS) MOD)

AS/NZS
1269 Occupational noise management
1269.1 Part 1: Measurement and assessment of noise immission and exposure

1554 Structural steel welding
1554.1 Part 1: Welding of steel structures
1554.4 Part 4: Welding of high strength quenched and tempered steels
1554.5 Part 5: Welding of steel structures subject to high levels of fatigue loading

2080 Safety glass for land vehicles

4024.1 Safety of machinery (series)

4871 Electrical equipment for mines and quarries (series)

AS/NZS ISO
31000 Risk management—Principles and guidelines