

Australian Standard™

**Underground mining —
Shaft equipment**

Part 5: Headframes

This Australian Standard was prepared by Committee ME/18, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 10 July 1998 and published on 5 October 1998.

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, New South Wales
Department of Minerals and Energy, Western Australia
Department of Mines and Energy, Queensland
Department of Natural Resources and Environment, Victoria
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AS 3785.5—1998

Australian Standard™

**Underground mining—
Shaft equipment**

Part 5: Headframes

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PREFACE

This Standard was prepared by the Standard Australia Committee ME/18, Mining Equipment, to supersede AS 3785.5—1991.

The Standard is one of the following series, which deals with mine shaft equipment and promotes the safety of shaft equipment in underground mines:

AS

- 3785 Underground mining—Shaft equipment
- 3785.1 Part 1: Drum winding overwind safety catch systems
- 3785.2 Part 2: Friction winding arresting systems
- 3785.3 Part 3: Drum winding gripper systems
- 3785.4 Part 4: Conveyances for vertical shafts
- 3785.5 Part 5: Headframes (this Standard)
- 3785.6 Part 6: Guides and rubbing ropes for conveyances
- 3785.7 Part 7: Sheaves
- 3785.8 Part 8: Personnel conveyances in other than vertical shafts

Significant changes from the previous edition include the deletion of the definition for 'special load' and amendments to the following Clauses:

- 1.2 Referenced documents
- 2.2.1 Self-weight loads
- 2.3.7 Bin and chute loads
- 2.4.2 Operating rope loads
- 2.6 Wind loads
- 2.7 Earthquake loads
- 3.1 Structural design
- 3.2 Partial load factors
- 3.3 Load combinations
- 3.4 Stiffness
- 3.6 Stability.

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CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 REFERENCED DOCUMENTS	4
1.3 DEFINITIONS	4
1.4 NOTATION	7
SECTION 2 LOAD CALCULATIONS	
2.1 GENERAL	9
2.2 DEAD LOADS (W_{DL})	9
2.3 LIVE LOADS (W_L)	10
2.4 WORKING LOADS (W_{wk})	10
2.5 EMERGENCY LOADS (W_{em})	11
2.6 WIND LOADS (W_w)	12
2.7 EARTHQUAKE LOADS (W_{EQ})	12
2.8 FOOTING SETTLEMENT LOADS (W_{ftg})	12
2.9 TEMPERATURE EFFECT LOADS (W_{temp})	12
SECTION 3 DESIGN	
3.1 STRUCTURAL DESIGN	14
3.2 PARTIAL LOAD FACTORS	14
3.3 LOAD COMBINATIONS	14
3.4 STIFFNESS	16
3.5 VIBRATION	16
3.6 STABILITY	16
3.7 PLATFORM AND ACCESS REQUIREMENTS	16
3.8 FOOTING SETTLEMENT	16
3.9 TEMPERATURE EFFECTS	16

STANDARDS AUSTRALIA

Australian Standard

Underground mining—Shaft equipment

Part 5: Headframes

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies design requirements for headframes and skyshafts, for use on mine winding installations.

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

AS

- 1170 Minimum design loads on structures (known as the SAA Loading Code)
- 1170.1 Part 1: Dead and live loads and load combinations
- 1170.2 Part 2: Wind loads
- 1170.4 Part 4: Earthquake loads
- 1418 Cranes (including hoists and winches)
- 1418.1 Part 1: General requirements
- 1657 Fixed platforms, walkways, stairways and ladders—Design, construction and installation
- 1720 Timber structures
- 1720.1 Part 1: Design methods
- 2670 Evaluation of human exposure to whole-body vibration
- 2670.1 Part 1: General requirements
- 2670.2 Part 2: Continuous and shock-induced vibration in buildings (1 to 80 Hz)
- 2670.3 Part 3: Evaluation of exposure to whole-body Z-axis vertical vibration in the frequency range 0.1 to 0.63 Hz
- 3600 Concrete structures
- 3785 Underground mining—Shaft equipment
- 3785.6 Part 6: Guides and rubbing ropes for conveyances
- 3990 Mechanical equipment—Steelwork
- 4100 Steel structures

AS/NZS

- 1564 Aluminium Structures
- 1564.1 Limit state design
- 1564.2 Allowable stress design

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

1.3.1 Arresting distance—the distance between the point of entry and the point of impact.

1.3.2 Arrestor anchor—the anchor that fixes an arrestor to a headframe or skyshaft.