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THE SELECTION, CARE AND USE OF INDUSTRIAL SAFETY HELMETS



STANDARDS ASSOCIATION OF AUSTRALIA
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Gas Association
Australasian Institute of Mining and Metallurgy
Bureau of Steel Manufacturers of Australia
Confederation of Australian Industry
Department of Industrial Relations, N.S.W.
Department of Labour and Industry, Vic.
Department of Mines and Energy, N.T.
Department of Productivity
Electricity Supply Association of Australia
Health Commission of New South Wales
Joint Coal Board
Metal Trades Industry Association of Australia
Metropolitan Water Sewerage and Drainage Board, N.S.W.
National Safety Council of Australia (N.S.W. Division)
Safety Institute of Australia
Telecom Australia

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AUSTRALIAN STANDARD

THE SELECTION, CARE AND USE OF INDUSTRIAL SAFETY HELMETS

AS 1800—1981

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PREFACE

This edition of this standard was prepared by the Association's Committee on Industrial Safety Helmets, under the supervision of the Safety Standards Board, to supersede AS 1800—1975.

The standard sets out recommended practices aimed at ensuring that helmets are used and maintained in a manner that will continue to provide the wearer with the designed level of protection.

This edition of the standard particularly emphasizes the care necessary in—

- (a) selecting and fitting of helmet accessories, such as ear muffs, eye protectors, respiratory protective devices; and
- (b) monitoring and assessing the continued suitability of a helmet over its working life.

In regard to (b), the committee had access to overseas reports of effects of helmet exposure and received interim reports and assistance from Telecom Research Laboratories which has undertaken an extensive (5 years) program to research the behaviour and suitability of industrial safety helmets following various exposure durations.

The standard continues to draw the attention of users of industrial safety helmets to the fact that helmets are constructed so that the energy of a severe blow is absorbed by partial destruction of the shell and/or harness. Any helmet which suffers such an impact should be discarded and replaced.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for.

THE SELECTION, CARE AND USE OF INDUSTRIAL SAFETY HELMETS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out the recommended practices for the selection, use and maintenance of industrial safety helmets for the protection of the head in building and construction, underground working, mining, quarrying, forestry, and in other occupations with similar hazards.

1.2 GENERAL PRINCIPLES. In general, a safety helmet should be worn—

- (a) where there is a possibility that a person may be struck on the head by a falling object;
- (b) where a person may strike his head against a fixed object; or
- (c) where inadvertent head contact may be made with electrical hazards.

NOTE: It should be noted that 'bump caps', commonly worn to protect against minimum sideways impact, do not provide protection against any of the hazards described above.

1.3 METHOD OF PROTECTION. A safety helmet for industrial use protects against impact from overhead by absorbing energy through—

- (a) deformation of the shell;
- (b) crushing of the protective padding if provided; and
- (c) stretching of the harness.

The residual force of the impact is spread over the surface of the head thus lessening the chance of injury.

1.4 ACCESSORIES.

1.4.1 Type of Accessories. A wide range of accessories can be fitted to helmets to make them more suitable for variable working conditions. Examples are as follows:

- (a) A retaining strap worn either under the chin or at the nape of the neck. The strap is usually of elasticized tape attached by plastics fittings to the helmet shell. The attachment system should be such that it fails before the wearer is injured in the event of the helmet becoming fouled on an obstruction.
- (b) A bracket and cable clip for the attachment of a lamp.
- (c) An eyeshield, faceshield or welding shield.
- (d) A wide brim for additional shade in hot climates.
- (e) Neck flaps for protection against weather, molten metal splash, hot substances, etc.
- (f) A liner for cold conditions.
- (g) Ear muffs.

1.4.2 Care in Fitting Accessories. Care should be taken to ensure that accessories and their attachment systems do not reduce the safety characteristics of the helmet nor adversely affect the balance or comfort of the helmet. Particular care should be given to the electrical resistance.

Any unauthorized alterations to helmets, e.g. drilling of holes in helmets, should not be made, as such alterations—

- (a) may take the helmet out of compliance with AS 1801;
- (b) could void any approval or certification of the helmet; and
- (c) may reduce the effectiveness of the helmet.

Accordingly, where alterations to helmet are contemplated, advice should be sought from the manufacturers and approving authorities.