AS 4291.5—2000
ISO 898-5:1998

Australian Standard™

Mechanical properties of fasteners made of carbon steel and alloy steel

Part 5: Set screws and similar threaded fasteners not under tensile stresses

This Australian Standard was prepared by Committee ME/29, Fasteners. It was approved on behalf of the Council of Standards Australia on 31 August 1999 and published on 17 January 2000.

The following interests are represented on Committee ME/29:

Australian Building Codes Board

Australian Chamber of Commerce and Industry

Australian Industry Group

Bureau of Steel Manufacturers of Australia

Electricity Supply Association of Australia

Federal Chamber of Automotive Industries

Institute of Materials Engineering Australasia

Metal Building Products Manufacturers Association

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Part 5: Set screws and similar threaded fasteners not under tensile stresses

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PREFACE

This Standard was prepared by the Standards Australia Committee ME/29, Fasteners, to supersede AS/NZS 4291.5:1995, *Mechanical properties of fasteners*, Part 5: *Set screws and similar threaded fasteners not under tensile stress*.

The objective of this Standard is to provide manufacturers and users of threaded fasteners with the material requirements and mechanical properties for carbon steel and alloy steel set screws and similar threaded fasteners not under tensile stresses with ISO metric threads.

The following changes have been incorporated in this edition:

(a) Updating of references.

(b) Deletion of the requirement for a surface integrity test.

(c) Minor changes to torque test requirements.

This Standard is identical with and has been reproduced from ISO 898-5:1998, *Mechanical properties of fasteners made of carbon steel and alloy steel*, Part 5: *Set screws and similar threaded fasteners not under tensile stresses*.

Statements expressed in mandatory terms in notes to text, tables and figures are deemed to be requirements of this Standard.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

As this Standard is reproduced from an international Standard, the following applies:

(i) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(ii) In the source text, ‘this part of ISO 898’ should read ‘this Australian Standard’.

(iii) A full point substitutes for a comma with referring to a decimal marker.

References to international Standards should be replaced by references to Australian Standards, as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
965	ISO general purpose metric screw threads—Tolerances	—	
965-3	Part 3: Deviations for constructional threads	—	
4948	Steels—Classification	—	
4948-1	Part 1: Classification of steels into unalloyed and alloy steels based on chemical composition		
6506	Metallic materials—Hardness test—Brinell test	1816	Metallic materials—Brinell hardness test

ISO		AS	
6507	Metallic materials—Vickers hardness test	1817	Metallic materials—Vickers hardness test
6507-1	Part 1: Test Method		
6508	Metallic materials—Hardness test—Rockwell test (scales A, B, C, D, E, F, G, H, K)	1815	Metallic materials—Rockwell hardness test

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AUSTRALIAN STANDARD

Mechanical properties of fasteners made of carbon steel and alloy steel —

Part 5:
Set screws and similar threaded fasteners not under tensile stresses

1 Scope

This part of ISO 898 specifies the mechanical properties of set screws and similar threaded fasteners not under tensile stresses with nominal thread diameters from 1,6 mm up to and including 24 mm, which are made of carbon steel or alloy steel.

The mechanical and physical properties apply when tested at an ambient temperature of 10 °C to 35 °C and will vary at higher or lower temperatures.

This part of ISO 898 does not apply to set screws requiring special properties such as

— specified tensile stresses (see ISO 898-1);

— weldability;

— corrosion resistance;

— ability to withstand temperatures above + 300 °C or below – 50 °C.

NOTE — Set screws made from free-cutting steel should not be used above + 250 °C.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 898. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 898 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 965-3:1998, *ISO general purpose metric screw threads —Tolerances — Part 3: Deviations for constructional threads.*

ISO 4948-1:1982, *Steels — Classification — Part 1: Classification of steels into unalloyed and alloy steels based on chemical composition.*

ISO 6506:1981, *Metallic materials — Hardness test — Brinell test.*

ISO 6507-1:1997, *Metallic materials — Vickers hardness test — Part 1: Test method.*

ISO 6508:1986, *Metallic materials — Hardness test — Rockwell test (scales A - B - C - D - E - F - G - H - K).*