AS 4291.5:2015
ISO 898-5:2012

AS 4291.5:2015

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

STANDARDS Australia

This Australian Standard® was prepared by Committee ME-029, Fasteners. It was approved on behalf of the Council of Standards Australia on 24 July 2015.
This Standard was published on 26 August 2015.

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This Standard was issued in draft form for comment as DR AS 4291.5:2015.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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

Originated as AS/NZS 4291.5:1995.
Revised and redesignated as AS 4291.5—2000.
Second edition AS 4291.5:2015.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76035 204 2

PREFACE

This Standard was prepared by the Standards Australia Committee ME-029, Fasteners, to supersede AS 4291.5—2000.

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

This Standard is identical with, and has been reproduced from ISO 898-5:2012, *Mechanical properties of fasteners made of carbon steel and alloy steel,* Part 5*: Set screws and similar threaded fasteners with specified hardness classes—Coarse thread and fine pitch thread.*.

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

(a) In the source text 'this part of ISO 898' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when 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		
965-1	Part 1: Principles and basic data	1721	General purpose metric screw threads

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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.

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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 mechanical and physical properties of set screws and similar threaded fasteners made of carbon steel or alloy steel when tested at an ambient temperature range of 10 °C to 35 °C. Fasteners (the term used when set screws and similar threaded fasteners are considered all together) which conform to the requirements of this part of ISO 898 are evaluated at that ambient temperature range.

Fasteners in conformance with this part of ISO 898 are classified to specified hardness classes and are intended for use under compressive stress only.

NOTE Fasteners conforming to the requirements of this part of ISO 898 are used in applications ranging from −50 °C to +150 °C. It is the responsibility of users to consult an experienced fastener metallurgist for temperatures outside the range of −50 °C to +150 °C and up to a maximum temperature of +300 °C when determining appropriate choices for a given application.

This part of ISO 898 is applicable to set screws and similar threaded fasteners:

— made of carbon steel or alloy steel,

— having a triangular ISO metric screw thread in conformance with ISO 68-1,

— with a coarse pitch thread of M1,6 to M30, and a fine pitch thread of M8×1 to M30×2,

— with diameter/pitch combinations in conformance with ISO 261 and ISO 262, and

— having thread tolerances in conformance with ISO 965-1 and ISO 965-2.

It does not specify requirements for such properties as

— tensile strength,

— shear strength,

— weldability,

— corrosion resistance, or

— the ability to withstand temperatures above +150 °C or below −50 °C.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 965-1, *ISO general-purpose metric screw threads — Tolerances — Part 1: Principles and basic data*