

AS 2214.2:2024



STANDARDS
Australia



Structural steelwork — Qualification of personnel

Part 2: Bolting supervisors and inspectors

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- Australian Steel Association
- Australian Steel Institute
- Australian Welding Institute
- Better Regulation Division (Fair Trading, SafeWork NSW, TestSafe)
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Part 2: Bolting supervisors and inspectors

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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee WD-003, Welding of Structures, to supersede AS/NZS 2214:2019, *Certification of welding supervisors — Structural steel welding*.

The objective of this document is to specify the pre-examination qualifications and scope of examination required for granting certificates of qualification to personnel engaged in the supervision and inspection of bolting conforming with AS/NZS 5131.

This edition follows the format of AS 2214:2024, which gives recognition to competency-based education and training and takes cognizance of relevant ISO Standards.

The inclusion of roles and responsibilities in AS 2214.2:2024 was approved by SDAC on 02/11/2023.

The terms “normative” and “informative” are used in Standards to define the application of the appendix to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

Contents

Preface	ii
Introduction	v
1 Scope and general	1
1.1 Scope	1
1.2 Application	1
1.3 Normative references	2
1.4 Terms and definitions	2
2 Examining and assessment process	4
2.1 General	4
2.2 Impartiality	4
2.3 Quality system	4
2.3.1 General	4
2.3.2 Audit	5
2.3.3 Records	5
2.4 Examination	5
2.4.1 Application and supporting documentation	5
2.4.2 Theory examination	5
2.4.3 Appeals	5
3 Bolting supervisor qualification	6
3.1 Pre-examination requirements	6
3.1.1 General	6
3.1.2 Criteria	6
3.2 Scope of examination	6
3.2.1 Type	6
3.2.2 Location of examination	7
3.2.3 Duration of the examination	7
3.2.4 Criteria for examination marking	7
3.3 Examination syllabus	7
3.3.1 Syllabus	7
3.3.2 Modification of the syllabus	7
3.3.3 Evidence of prior learning	7
3.4 Reporting of results	7
3.4.1 General	7
3.4.2 Test certificate and wallet card	8
3.4.3 Period of validity	8
3.4.4 Re-issue of certificate and wallet card	8
3.4.5 Register	8
3.5 Failure in part	8
3.5.1 Documentary evidence	8
3.5.2 Re-examination	8
3.5.3 Date, location and duration for re-examination	8
4 Bolting inspector qualification	9
4.1 Pre-examination requirements	9
4.1.1 General	9
4.1.2 Criteria	9
4.2 Scope of examination	9
4.2.1 Type	9
4.2.2 Location of examination	10
4.2.3 Duration of the examination	10
4.2.4 Criteria for examination marking	10
4.3 Examination syllabus	10
4.3.1 Syllabus	10
4.3.2 Modification of the syllabus	10

4.3.3	Evidence of prior learning.....	11
4.4	Reporting of results.....	11
4.4.1	General.....	11
4.4.2	Test certificate and wallet card.....	11
4.4.3	Period of validity.....	11
4.4.4	Reissue of certificate and wallet card.....	11
4.4.5	Register.....	11
4.5	Failure in part.....	11
4.5.1	Documentary evidence.....	11
4.5.2	Re-examination.....	12
4.5.3	Date, location and duration for re-examination.....	12
Appendix A (normative) Syllabus for bolting supervisor qualification.....		13
Appendix B (normative) Syllabus for bolting inspector qualification.....		27
Bibliography.....		34

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Introduction

The Standard refers to the qualification of personnel required to supervise or inspect the installation of bolting in structures to meet the needs of safety and performance of structural steelwork required by industry.

This document is directed towards the requirements of the structural steel fabrication and erection industries for the qualification of bolting supervisors and bolting inspectors. The requirements of this document apply specifically to structural applications designed to AS 4100 and AS/NZS 5100.6, and fabricated and erected to AS/NZS 5131.

This document provides minimum requirements acceptable throughout Australia for the qualifying of personnel to either supervise the installation of structural bolts in steel structures or inspect such installations but recognizes that there are other industries and applications where bolting integrity is also of considerable importance.

In these cases, qualification in accordance with this document may be useful or desirable, particularly where an application Standard does not specify bolting supervisor or inspector qualifications. Such qualifications have their objective as the need to ensure that structural bolts are installed correctly according to the relevant Standards and other specified requirements and is performed safely.

The possession of a bolting supervisor's or inspector's qualification indicates that the holder has a high degree of knowledge on the theory and practice of structural bolting in accordance with the appropriate requirements of an application Standard.

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1 Scope and general

1.1 Scope

This document sets out uniform minimum requirements for the qualification of personnel engaged in the supervision and/or inspection of structural bolting installations in fabricated steel structures with a focus on requirements specified within AS/NZS 5131.

The bolting supervisor qualification conforming to this document is also recommended as a minimum requirement for personnel required to inspect bolting installations.

The bolting supervisor and bolting inspector are persons engaged in the supervision and inspection respectively of bolting and allied processes —

- (a) intended to form part of steel structures constructed in accordance with AS/NZS 5131;
- (b) designed in accordance with AS 4100, AS/NZS 5100.6, or NZS 404.1; and
- (c) where appropriate, to form part of other structures.

Syllabus requirements for the practical and theory component of the bolting supervisor qualification are set out in [Section 3](#) and [Appendix A](#).

Syllabus requirements for the practical and theory component of the bolting inspector qualification are set out in [Section 4](#) and [Appendix B](#).

These build on the knowledge of the theory and practice of bolting with a focus on inspection requirements. This document also sets out the minimum requirements for examining bodies.

This document covers the following pretensioning methods:

- (i) Turn-of-nut method.
- (ii) Direct tension indicator (DTI) method.
- (iii) Torque method.
- (iv) Spline-drive twist-off method.
- (v) Combined method.

1.2 Application

Qualification shall be in accordance with the general requirements of [Sections 1, 2](#) and the following as applicable:

- (a) [Section 3](#) provides requirements for bolting supervisors.
- (b) [Section 4](#) provides requirements for bolting inspectors.