

AS 1418.12—1991

Reconfirmed 2016

Australian Standard<sup>®</sup>

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**Cranes (including hoists and  
winches)**

**Part 12: Crane collector systems**

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This Australian Standard was prepared by Committee ME/5, Cranes. It was approved on behalf of the Council of Standards Australia on 7 October 1990 and published on 28 March 1991.

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*This Standard was issued in draft form for comment as DR 89182..*

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**RECONFIRMATION**

**OF**

**AS 1418.12—1991**

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Technical Committee ME-005 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 1 November 2016.

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## NOTES

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## PREFACE

This Standard was prepared by the Standards Australia Committee on Cranes.

Although this Standard forms part of AS 1418, SAA Crane Code, it is an interdisciplinary document with no equivalent ISO or IEC Standards.

In the preparation of this Standard, AS 2692, *Busbar trunking systems (busway)*, was used as the basic document. In addition, the following Australian Standards were considered:

AS 1136.1 *Low voltage switchgear and controlgear assemblies, Part 1: General requirements*

AS 3650 *Low voltage switchgear and controlgear—Common requirements*

Cognizance was also taken of current IEC and VDE Standards, and assistance is hereby acknowledged.

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STANDARDS AUSTRALIA

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**Cranes (including hoists and winches)**

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Part 12: Crane collector systems

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SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE** This Standard specifies requirements for crane collector systems incorporating a sliding or rolling contact device, referred to herein as ‘CCS’, intended for use on—

- (a) alternating current systems, the rated voltage of which is greater than 32 V and does not exceed 1000 V, at frequencies from 25 Hz to 60 Hz; and
- (b) direct current systems, the rated voltage of which is greater than 115 V and does not exceed 1500 V.

The Standard does not cover direct-connected systems such as slip rings, cable reelers or flexible cable systems.

NOTES:

- 1 Guidance on the installation checks of CCS is provided in Appendix A.
- 2 Appendix B shows the typical components of a CCS, and cross-sections of enclosed CCS.

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

AS	
1418	SAA Crane Code
1418.1	Part 1: General requirements
1852	International electrotechnical vocabulary
1852(441)	Chapter 441—Switchgear, controlgear and fuses
1931	High voltage testing techniques
1931.1	Part 1: General definitions, test requirements, test procedures and measuring devices
1939	Classification of degrees of protection provided by enclosures for electrical equipment
2395	Terminals for switchgear assemblies for alternating voltages above 1 kV
2420	Fire test methods for solid insulating materials and non-metallic enclosures used in electrical equipment
2549	Cranes—Glossary of terms
2752	Preferred numbers and their use
2768	Electrical insulating materials—Evaluation and classification based on thermal endurance
3000	SAA Wiring Rules
3100	Approval and test specification—Definitions and general requirements for electrical materials and equipment
3121	Approval and test specification for insulating mouldings
IEC	
112	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions

**1.3 DEFINITIONS** For the purpose of this Standard, the definitions given in AS 1852(441), AS 2549, and AS 3000, and those below apply.

**1.3.1 Anchor clamp**—a clamp which provides a fixed connection between the support bracket and the conductor bar or its cover (or both) to control the direction of longitudinal expansion.

**1.3.2 Collector**—an electrical device designed, when moved along the conductor bar, to provide continuous electrical contact between the conductor bar and the crane electrical system.

**1.3.3 Conductor bar**—a fixed conductor (which may be either rigid or flexible) for the provision of electrical power to the crane, and along which the collector moves.

**1.3.4 Enclosed conductor bar**—a conductor bar which is enclosed in such a manner as to provide a degree of protection of at least IP2X in accordance with AS 1939.

**1.3.5 Hanger clamp**—a clamp for attaching the conductor bar to the support bracket or other supporting structure.