

(ICS 53.020.20)

# SINGAPORE STANDARD Code of practice for safe use of tower cranes

(Formerly CP 62)



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## SINGAPORE STANDARD

Code of practice for safe use of tower cranes

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The General Engineering and Safety Standards Committee appointed by the Standards Council consists of the following members:

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The Technical Committee on Safety and Health Involving the Use of Equipment appointed by the General Engineering and Safety Standards Committee and responsible for the preparation of this standard consists of representatives from the following organisations:

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The Working Group appointed by the Technical Committee to assist in the preparation of this standard comprises the following experts who contribute in their *individual capacity*:

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Access Systems Technology Pte Ltd
Building and Construction Authority
Housing & Development Board
Institution of Engineers, Singapore
JP Consultancy (Pte) Ltd
Land Transport Authority
Liebherr Singapore Pte Ltd
Manitowoc Crane Group Asia Pte Ltd
Ministry of Manpower
Singapore Contractors Association Limited
SMIE Singapore Pte Ltd
Workplace Safety and Health Council

<sup>\*</sup>Observer in December 2009 and January 2010

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#### **Foreword**

This Singapore Standard was revised by the Technical Committee on Safety and Health Involving the Use of Equipment under the purview of the General Engineering and Safety Standards Committee.

This Code is a revision of SS CP 62: 1995 which was first published in 1995. CP 62 has been renumbered as SS 559.

In this revision, the focus is on the inspection, testing and examination of tower cranes. It aims to provide recommendations for the pre-use checks, in-service inspections, and testing of cranes, including associated equipment and the means by which tests are to be carried out.

This Code may be referred to by workplace safety and health officers, safety consultants, project / site managers, approved crane contractors and crane suppliers as well as the relevant authorities.

This Code is based on BS 7121-5 : 2006 – 'Code of practice for safe use of cranes, Part 5: Tower cranes' and ISO 9927-3 : 2005 – 'Cranes – Inspections, Part 3: Tower cranes'.

Acknowledgement is made for the use of information from the above references.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

## NOTE

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.

# Code of practice for safe use of tower cranes

## 1 Scope

This Code gives recommendations for the safe installation and use of tower cranes, including self-erecting tower cranes.

Subjects covered include selection of tower cranes, planning the installation (including site specific design work, e.g. base and ties), erection, extension (including climbing), inspection (including testing), maintenance, operation, and dismantling, as well as safety measures to be taken during the execution of all the above functions. It also covers the appropriate selection and training of personnel involved in the safe installation and use of tower cranes.

#### 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.

BS 4-1 Structural steel sections, Part 1: Specification for hot-rolled sections

ISO 7296-1 Cranes – Graphic Symbols, Part 1: General

SS 528 (all parts) Personal fall-arrest systems
SS 551 Code of practice for earthing

SS CP 5 Code of practice for electrical installations
SS CP 33\* Code of practice for lightning protection

SS CP 63: 1996 Code of practice for the lifting of persons in work platforms

suspended from cranes

SS CP 88 (all parts) Code of practice for temporary electrical installations

<sup>\*</sup> Under revision