

SINGAPORE STANDARD

CP 62 : 1995

(ICS 53.020.20)

CODE OF PRACTICE FOR

Safe use of tower cranes

Published by
SPRING Singapore
2 Bukit Merah Central
Singapore 159835
SPRING Singapore Website: www.spring.gov.sg
Standards Website: www.standards.org.sg



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ISBN 9971-67-506-4

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SINGAPORE STANDARD
CODE OF PRACTICE FOR
THE SAFE USE OF TOWER CRANE

FOREWORD

This Code was prepared by the Technical Committee for the Safe Use of Tower Cranes under the direction of the Industrial Safety Standards Committee.

Preparation of this Code was prompted by the fact that tower cranes are widely used in Singapore especially in the building construction, shipbuilding and shiprepairing industries. They are very important but also dangerous equipment if not properly handled. Any accident arising from the wrong usage of a tower crane may result in serious or fatal injuries.

This Code gives general guidance to the users on the safety aspect of practice regarding siting, stability, proximity hazards, erection, dismantling, operation, control, maintenance, inspection and repair of tower cranes.

It is our aim that users refer to this Code as a guide for good practice so as to avoid unnecessary risks and costly accidents to life and properties.

In the preparation of this Code, reference was made to the following standards :

AS 1418.4 : 1988	SAA Crane code, Part 4 : Tower cranes
AS 2550 : 1982	Cranes - Mobile, tower and derrick cranes - Selection and operation
BS CP 3010 : 1972	Safe use of cranes (mobile, tower and derrick cranes)
ISO 4306-3 : 1991	Cranes - Vocabulary, Part 3 : Tower cranes
NF E52-082 : 1982	Tower cranes : General safety requirements

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

NOTE

1. Singapore Standards are subjected to periodical review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.
2. Compliance with a Singapore Standard does not exempt users from legal obligations.

SECTION I

GENERAL

1. SCOPE

1.1 This Code serves as a guide for the safe use of tower cranes. For this purpose, the Code will set out guidelines on, among others, the siting and installation, operation, testing and maintenance of tower cranes.

2. DESCRIPTION OF CRANE TYPES

2.1 Tower cranes are power driven cranes which have a vertical tower designed to be free-standing up to a specified height.

2.2 Tower cranes are available in various types and configuration according to the particular combination of tower, jib and the mount on which it rests. These are described in Figures 1, 2 and 3. Individual crane may comprise almost any combination of the features mentioned:

3. DEFINITIONS

3.1 **Approved Person.** A person approved by the Chief Inspector of Factories to carry out testing, inspection and examination of lifting appliances, lifting gears and lifting machines to satisfy the requirements of the Factories Act.

3.2 **Centre Of Rotation.** The vertical axis about which the crane slews or rotates.

3.3 **Climbing Crane.** A tower crane which is supported by the building or structure within which it stands and which can be raised as the number of storeys increases.

3.4 **Competent Authority.** The authority having jurisdiction over the subject in the Republic of Singapore.

3.5 **Competent Engineer.** A professional engineer of the relevant discipline registered in Singapore.

3.6 **Counter-jib.** A secondary jib which carries the counter-weight or a counter-balancing device (see Figure 3).

3.7 **Counterweight.** Weights added to the crane in such a position to provide a counterbalancing effect.

3.8 **Free-standing Height.** The maximum height at which a tower crane can operate without being held by ties.

3.9 **Hoisting.** The movement of the load in the vertical direction.

3.10 **Interference.** A condition in which the jib can come into contact with another structure, crane, or the hoisting ropes of another crane, or any other obstacles.

3.11 **Interference Zone.** The area in which interference can occur.

3.12 **Jib.** The main structure from which the load is suspended (see Figure 3).