

Tower Crane Code of Practice 2017

Background

- In June 2015, the government made commitment to review all construction-related codes of practice preserved under *Work Health and Safety Act 2011*
- Review was considered timely as the Tower Crane Code was over 10 years old
- Use of tower cranes is high risk work activity and concerns about increase in injuries and incidents relating to tower crane operations

Tower Crane Industry Steering Committee

Organisations

CFMEU

Master Builders

Watpac

Morrow Cranes

Brookfield Multiplex

Hanson Yuncken

Hutchinsons

Lindores Construction Logistics

VTS Cranes

AusSafe Consulting

Workplace Health and Safety Queensland

Objectives of the review

- Update the code so it:
 - is responsive to industry needs
 - reflects current industry best practice
 - is consistent with the model work health and safety laws implemented in Queensland in 2012
- Provide a useful tool and clearer guidance on the safe operation of tower cranes in Queensland

Tower Crane Code review process

- Evidence based approach to identify key issues through review of:
 - injury data and trends
 - incident types
 - jurisdictional comparisons – other states and territories and international comparisons
- 5 meetings held during review of code
- Additional expert feedback and contribution

Key changes

1. Introducing recommendation for independent third party inspections of tower cranes to be undertaken at commissioning stage
2. Amending requirements for design of first aid boxes, including that boxes be fully enclosed by mesh
3. Recommending first aid boxes not be used when wind speeds exceed 54km/hr to ensure safe use in emergency situations

Independent third party inspections

- Issue raised about tower cranes not being independently verified before they are erected
- Third party inspections can ensure faults are picked up before cranes are operational
- An independent third party is a person who:
 - has acquired through training, qualification or experience the knowledge and skills to carry out the task
 - is not associated with the ongoing general repair and maintenance of a particular crane (whether directly or indirectly or through an associated company, including companies who hire or lease a crane)

Independent third party inspections

- WHSQ engaged economist to undertake analysis of proposal
- Economist found the additional costs associated with this proposal would be moderate – majority of industry already engaging third party inspections
- Analysis found that third party inspections would significantly reduce risk of incidents and potential injuries

Changes to first aid box design

- Section 7.5.2 sets out new design criteria for crane-lifted first aid boxes
- New criteria include:
 - boxes be fully enclosed by mesh
 - grab rails be provided and recessed along sides of box
 - clearly identified and marked as first aid boxes
- No longer requirement for persons inside box to be fully harnessed

Changes to first aid box design



Wind speeds for first aid box use

- Section 7.5.2 also provides discussion on use of first aid boxes under certain conditions
- Recommended that first aid boxes not be used when wind speeds exceed 54km/hr or in adverse weather such as electrical storms
- When wind speeds exceed 54km/hr, alternative emergency retrieval means should be used such as hoists
- First aid boxes should be lifted away from structures to avoid collision

Other changes to code

- Introductory section clearer on general duties and risk management
- Clarifying when engineers should be involved (e.g. design of tower crane bases and verifying design/detail of crane ties)
- Clarifying the use of signs on tower cranes
- Additional issues to consider when planning for tower crane operations

Other changes to code

- Additional issues to consider when determining number of persons in crane crew
- Importance of consultation with all relevant parties when siting tower cranes
- New 'emergency plan' section added to ensure emergency plan prepared
- New 'lighting' section added to highlight importance of adequate lighting when climbing and accessing cranes

Other changes to code

- Clearer guidance on working near overhead powerlines
- Clearer explanation on use of slings, particularly synthetic slings



Other changes to code

- Requirements for non-destructive testing updated to reflect current industry practice
- Minor clarifications on annual inspections and major inspections
- Second-hand imported cranes should be subject to:
 - inspection by independent third party before being operated for first time
 - major inspection if crane 10 years old or no documented evidence of history or maintenance

Other changes to code

- Creation of separate familiarisation training checklists and minor amendments to crane safety certificates

CHECKLIST

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Commencement of code



- New requirements for first aid box design will commence 1 January 2018

Other code reviews

- Four other construction-related codes being reviewed:
 - Concrete Pumping Code of Practice 2005 (commenced May 2017)
 - Scaffolding Code of Practice 2009 (commencing August 2017)
 - Mobile Crane Code of Practice 2006 (to commence September 2017)
 - Tilt-up and Pre-cast Construction Code of Practice 2003 (to commence September 2017)

Questions and contact details

- Further information on Tower Crane Code of Practice 2017 (including a comparison table) can be found at:
www.worksafe.qld.gov.au
- Questions can be directed to Workplace Health and Safety Queensland by email to
WHSPolicy@oir.qld.gov.au
- Thank you for attending